Dr David Topping, Centre for Atmospheric Science
Accelerating chemical thermodynamics

• UNIFAC model treats interactions between molecules in liquid solutions

• Atmospheric science predicts the potential for 1000s'-1'000'000's of such compounds making inclusion of chemical thermodynamics very expensive

• Relatively 'simple' model. Testing porting to CUDA and OpenCl

• During the process, profiling performance of basic operations for different sized Matrices on GPU, XeonPhi and FPGA in the Zrek cluster

......open to collaborations and development of a paper for submission to GeoScientific Model Development!

ICT Proposers day, Florence October 2014

- **Information sessions** on how to prepare and submit a proposal

- Topic **information stands** where European Commission officials provide up-to-date information on the research and innovation topics of the Work Programme 2015 and the content of the calls for proposals

- A European Commission ICT **information desk** to supply information on relevant topics, along with other information stands

- **Networking sessions** organised according to the Pillars and Topics of the Work Programme 2015 where potential proposers present their project ideas

- Booths, organised per villages, which serve as **meeting points** for people interested in the same research topics

- Ample space for **informal networking** and bilateral pre-arranged meetings between participants

	Components & Systems	Net Futures	Content	Excellence	Sustainability	Health & Well-Being
10:00 11:30	FoF Factories of the Future	CAPS Collective Awareness Platforms	Learning & Teaching Technologies	HPC High Performance Computing	Water Management	H2020: Proposal Making *
12:00 13:30	Future Micro-Nano Electronics	Cloud Computing Procurement Actions	Digital Cultural Assets	VREs and eInfrastructure skills	ICT-based solutions for Energy Efficiency	eHealth Services
14:30 16:00	Photonics PPP	5G PPP and Network prizes	Big Data	FET Open	ICT-Based solutions for Transport & Green Vehicles	Health Data and Modeling
16:30 18:00	Cross-cutting ICT KETs	IPR Helpdesk *	Technologies for Creative Industries	H2020: Proposal Making *	Smart Cities	eHealth prize / Support for Standardisation *

	Components & Systems	Net Futures	Innovation	International	Public Services & Security	Health & Well-Being
9:30 11:00	Internet of Things and Platforms for Connected Smart Objects	FIWARE Accelerator Programme	FTI Fast Track to Innovation	H2020: Proposal Making *	ICT-enabled Open Government - Emerging Technologies	Active and Healthy Ageing
11:30 13:00	Customised and Low-power Computing	FIRE Future Internet Research & Experimentation	ODI Open Disruptive Innovation	International Cooperation	ICT-enabled Open Government & Mobile e-Government by SMEs	ICT for Integrated Care
14:00 15:30	Robotics PPP	R&D Targeted Cooperation with Brazil	PCP-Open	Support for Access to Finance * / IPR Helpdesk *	Digital Security	Put Innovation at the Core of your Proposal *

https://ec.europa.eu/digital-agenda/en/ict-proposers-day-9-10-october-2014

You can still search for proposed ideas amongst all the 'pillars' of H2020 ICT

Find the coordinator for each theme

Follow:
@ICTproposerEU
@DigitalAgendaEU

ICT 4 – Customised and low power computing

Computing is moving towards a low-power "computing continuum" spanning across embedded systems, mobile devices, desktops and data centres. The demand for low-power multi/many-core computing systems is intensifying across all market segments.

The objective of ICT 4 is to strengthen European competitiveness in the key parts of the emerging computing value chain.

Links and Documents

- Agenda (193 KB)
- General information (flyer) (444 KB)
- ICT 4 presentation (3 MB)
- Industrial Leadership on H2020 website
- Text of the call (375 KB)

Coordinator: Sandro D'ELIA (European Commission - DG CNECT, CNECT.A.3, Belgium), Anne-Marie SASSEN (European Commission, CNECT A3, Belgium)

Relevant activity line: Advanced Computing

Networking session: Customised and Low-power Computing

Booth: Advanced computing

40 Possible partners: Submit your own

5 Presentations: Submit your own
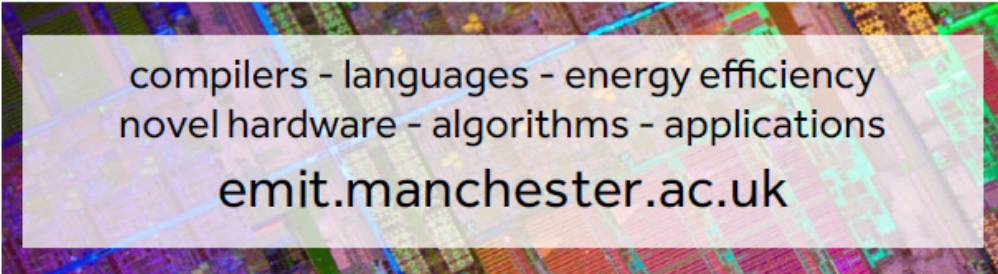
Project ideas

7 Project ideas: Submit your own

- Sofant Technologies - Developer Of Software Driven Smart Antennae Powered By RF MEMS Technology For Key Application Areas Ranging From Health Care To Mobile Communications
- EasyApps: Application development framework for customised heterogeneous low-power computing systems
- SOFTEAM (FR) - Modeling Energy Aware Systems
- NEARNOISE: Computing systems near of the environment noise floor: from subthreshold to near-noise computing
- Building the future
- MetaMorph: Applying code meta-modelling and morphing strategies for energy efficient heterogeneous multicore embedded systems
- TANGO - Transparent heterogeneous hardware Architecture deployment for eNergy Gain in Operation

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Emerging Technology Conference

Tuesday 30 June - Wednesday 1 July
The Place, Manchester, UK

Accelerating today's computing using tomorrow's technology

compilers - languages - energy efficiency
novel hardware - algorithms - applications
emit.manchester.ac.uk

Deadline for submission: 4pm, 19 Dec 2014. Abstracts will be peer reviewed and authors will be notified of acceptance to give a 15 mins talk

Confirmed Keynote speakers:
• Prof. Stephen Furber, "SpiNNaker and Human Brain Project"
• Prof. Laura Grigiori, "Communication avoiding algorithms and Programme Director of SIAM-SIG on Supercomputing"
• Dr. John Linford, Paratools Inc USA "Kppa: A high performance source code generator for chemical kinetics"
• Filippo Mantovani, Mont Blanc

Conference fee of £150 includes: conference dinner, stalls including Intel, NVIDIA, etc.

Please send questions to these to **emit@manchester.ac.uk**

http://emit.manchester.ac.uk/
for further details on aspects of this exciting cross-disciplinary conference.