

cHiPSet IC1406 Annual Report – 1st Grant Period

GP Goals

Goal:	Description
1	Constructively aggregate the participants' regionally and technically dispersed expertise and contacts to foster HPC routine.
2	Formal description of the state-of-the-art implementations and concepts supporting modelling and simulation models for big data.

WG tasks

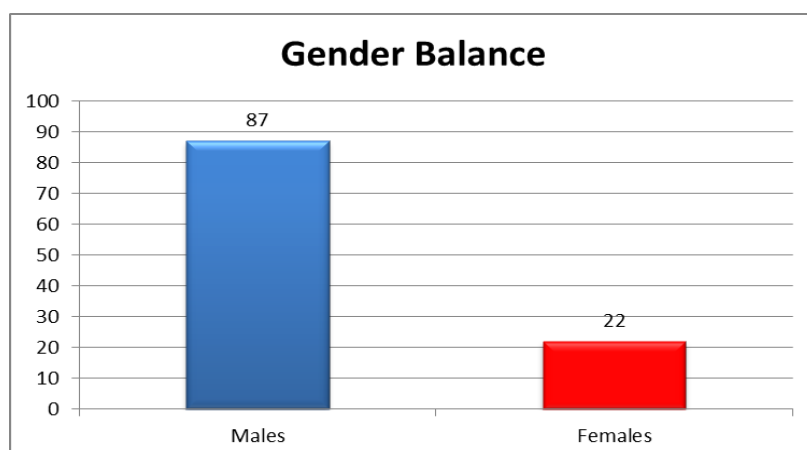
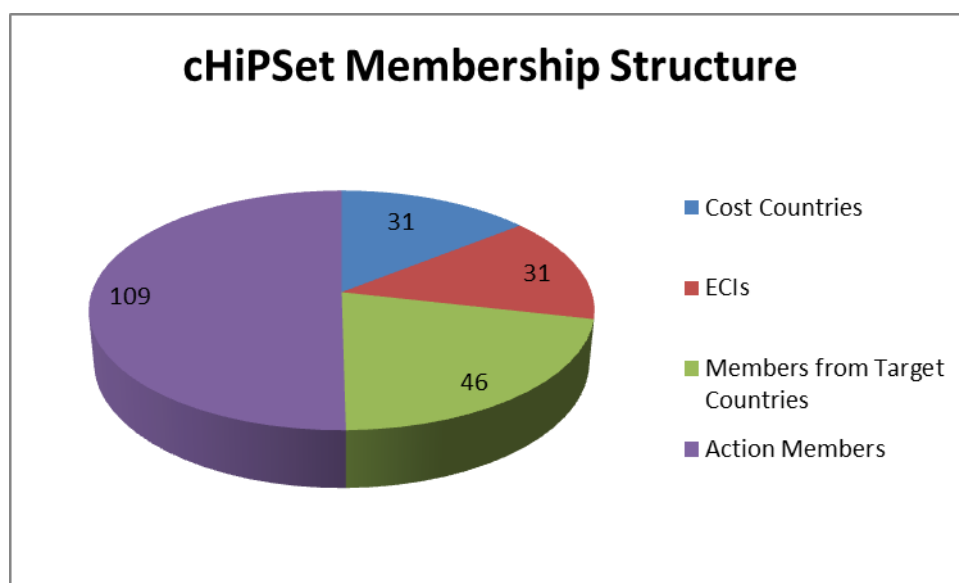
Working Group	Tasks planned per WG	Grant Period goal(s) that it/ they relate(s) to
WG1	Survey of the state-of-the-art of infrastructures and middle-ware for Big Data modelling and simulation	G2
	Development of the comprehensive full taxonomy of Big Data systems for life, physical, and socio-economical applications	G1
	Physical meetings complemented with skype meetings to work and network	G2, G1
WG2	Background knowledge building: inventory of high-level and domain specific languages with implicit and explicit parallelism for Model and Simulation	G1, G2
	Workload estimation: Volume, Velocity and Variability of data in paradigmatic Model and Simulation use cases	G1, G2
	Networking: establish a cooperation and common ground with other WGs, starting from WG3 and WG4.	G2, G1,
WG3	General survey of HPC needs and opportunities in M&S for Life Sciences.	G1, G2
	Selection of a number of specific application areas of interest for the Action to be used as application contexts.	G1, G2
	Identification of key players, both industrial and academic, in Europe and beyond, as potential partners for the consolidation, expansion and dissemination of the Action	G2, G1
WG4	Inventory and invitation of companies	G2
	Inventory of application areas and simulation environments	G1
	Physical meetings complemented with skype meetings to work and network	G2, G1

Action membership

In the end of the GP1, cHiPSet has **31** Cost countries (**14** EU countries in **2014** to **29** EU countries by the end of **2015**, **2** in **2016**), **6** international and **2** NNC institutions and **109** members.

cHiPSet GP1 membership statistics:

COST Member and Acceptance Date		
AT 30/07/2015	IE 11/12/2014	RO 30/01/2015
BE 30/03/2015	IL 22/12/2014	RS 27/12/2014
BG 23/02/2015	IT 30/01/2015	SK 24/06/2015
HR 15/06/2015	LV 17/02/2016	SI 12/10/2015
CY 24/11/2014	LT 16/04/2015	ES 03/12/2014
EE 17/12/2014	LU 17/12/2014	SE 02/12/2014
FI 21/01/2015	MT 10/02/2015	CH 13/07/2015
FR 19/12/2014	NL 29/02/2016	TR 08/06/2015
DE 01/12/2014	NO 23/03/2015	UK 25/11/2014
EL 16/12/2014	PL 26/11/2014	MK 24/12/2014
	PT 04/02/2015	



cHiPSet Meetings (<http://chipset-cost.eu/index.php/meetings-calendar/>)

In GP1 we had 3 face-to-face meetings:

- 11/09/2015 – MC+WG meeting in Cracow, Poland (<http://chipset-cost.eu/index.php/agenda/>) – It was the first meeting of the Action. We have organized a special session during the meeting to present the potential industrial partners and to establish a formal collaboration with the NESUS Action (<http://chipset-cost.eu/index.php/mcwg-meeting-special-session/>)
- 19/10/2015 – Core Group short working meeting hosted by UL, Lisbon, Portugal, for coordination of the work in WGs and discuss the realization of the workplan for GP1 – after the meeting, the participants had an opportunity to stay longer in Lisbon and participate in the ICT Info Days (the participation at that event was not supported by COST)
- 25-26/04/2016 – GP1 final WG+MC meeting in Dublin, Ireland (<http://chipset-cost.eu/index.php/agenda-2/>). During the meeting the summary of the research work during the GP1 and summary of the action activities in this grant period have been presented

We have organized also **19** virtual meetings of WGs, CG and MC.

cHiPSet Identity and IT support

The cHiPSet webpage has been established in April 2016, just after kick-off meeting and it is updated frequently. This webpage is the UI of the cHiPSet web service, which includes:

- 2 repositories:
 - Pydio
 - GIT
- Mailing lists Mailman (8 mailing lists – Action, WGs, STSM, TS, Industrial Collab. Team)
- Redmine project management platform
- Server:
 - Processor: Intel Xeon E3 1225v2
 - Cores/Threads: 4 cores/ 4 threads
 - Frequency: 3.2 GHz+
 - RAM: 32 GB DDR3
 - Disks: 2 x 2 TB SATA
 - RAID: Soft
 - Network connection: 1 Gbps
 - Bandwidth: 250 Mbps
 - Traffic: Unlimited
 - Anti-DDoS
 - Daily webpage backup

Full information is available at <http://chipset-cost.eu/index.php/internal-services/>

STSMs

We sponsored 12 STSM grants in GP1 : 3 for women and 9 for male participants. All beneficiaries were ECIs.

The list of the awarded grants is available at: <http://chipset-cost.eu/index.php/awarded-stsm-grants/>

The full STSM reports for GP1 is available here: http://chipset-cost.eu/wp-content/uploads/2017/05/STSM_Report_1st_Grant_Period.pdf

Dissemination Activities

cHiPSet members participated and organized **6** conferences and workshops where the Action was promoted.

The list of full dissemination activities is available in the dissemination report (http://chipset-cost.eu/wp-content/uploads/2017/05/Dissemination-Report_GP1.pdf)

cHiPSet is using the following social media for dissemination:

<https://www.facebook.com/cHiPSet.COST>
https://twitter.com/cHiPSet_COST
<https://www.linkedin.com/groups/8415036>

Research work

The annual WGs report on the realization of the tasks is available at:

<http://chipset-cost.eu/index.php/reports/>

At the same page the Research Work Results for GP1 can be found as e-publication.

<http://chipset-cost.eu/wp-content/uploads/2017/05/report-1.pdf>

The selected chapters have been published in "Resource Management for Big Data Platforms: Algorithms, Modelling, and High-Performance Computing Techniques" Springer book ().

The following Special Issues and Special sections have been published:

- Florin Pop, Mauro Iacono, Marco Gribaudo, Joanna Kolodziej: "Advances in modelling and simulation for big-data applications (AMSBA)", Concurrency and Computation: Practice and Experience 28(2): 291-293 (2016) (IF: 0942), <http://onlinelibrary.wiley.com/doi/10.1002/cpe.3750/full>
- Mauro Iacono, Joanna Kołodziej: "Complex Problems in High-Performance Computing Systems", AMCS, Volume 25 / Number 4, 2015 (IF: 1.3), <https://www.amcs.uz.zgora.pl/?action=papers&issue=63>

The cHiPSet members published also in vol. 2/2016 of the JTIT Journal

(<http://www.itl.waw.pl/archiwum-jtit?view=kwartalrok&rok=2016&kwartal=2>). This journal is indexed in Scopus (<http://www.itl.waw.pl/jtit-indexation>) and most of the cHiPSet publications are the results of STSM scholarships. The editors of this regular issue were Ewa Niewiadomska-Szynkiewicz and Ioan Salomie.

The list of the cHiPSet publications is available at:

<http://chipset-cost.eu/index.php/publications/>