

Erasmus + KA2: Cooperation for innovation and the exchange of good practices

Knowledge Alliances



Enabling SMEs to gain competitive advantage from the use of HPC

Regional Workshops Final Report D 8/4



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Summary

This deliverable is the summary of the five regional workshops for regional partners from the business community in the pilot regions of Ireland, Romania and Slovenia. These events were moderated in such a way as to contribute to the strategic dialogue between HEIs and the business/enterprise community, as well as to disseminate information about **SME/HPC**. During these sessions, a number of topics were discussed:

Romania:

- Informing attendees on the potential of HPC for SMEs' growth
- The need to produce and to delivery faster, to increase efficiency and productivity and to manage large amount of data in order to stay competitive in today's world.
- The debates were focused on raising awareness on the regional, national and international HPC knowledge providers and, on how business could benefit from using HPC.

Ireland

- Informing attendees on the potential of HPC for SMEs' growth
- Contact information of potential regional stakeholders to contribute for the SME/HPC project
- Strategic dialogue between HEIs and the business community in South East Ireland regarding HPC
- Dissemination of information about the SME/HPC Project. Business owners who were present were surprised by the number of applications that HPC has, which can benefit their own enterprises but also the city of Waterford. They also understood the value of the SME/HPC and, as a result, their contact details are going to be used for the next project undertaking.

Slovenia

- To organise events for regional stakeholders with the purpose to inform and explore their views and expectations from the future work in the field of bridging the gap between HPC at HEI and SMEs.
- Discussion about the enterprises' needs, the HPC situation and the role of HEI. The main conclusion was that the South east region of Slovenia is well developed, also the cooperation between HEIs and SMEs is somewhat good but more promotion must be done, to highlight the benefits of HPC usage.
- There are many good opportunities to enhance the cooperation via EU funded and nationally funded projects. It appears that the sensitivity of SMEs toward technological changes is still a restraint.
- The question of IPR rights emerged since SMEs usually do not have sufficient knowledge of how to protect their rights properly, so they rather do not decide to cooperate with HEI and HPC centres.
- Discussion about enterprises' needs, HPC situation and the role of HEI. Thus, the discussion also focused on success stories and good practices of HPC usage by small and medium enterprises from different sectors and the importance of technology transfer. It was emphasised, there are many good opportunities to use HPC to solve their own problems.
- Participants were offered a networking opportunity. Thus, participants exchanged ideas and agreed on close cooperation also in the future.

At the same time, the main challenge that the organisers of the workshops encountered was in attracting stakeholders. The stakeholders showed little or no interest at all in these events. Nevertheless, the organisers managed to collect and analyse the necessary information for the project obtained from those that have participated.

Regional Workshops

Workshop No.1

Date and Location

- **Date: 25 April 2018**
- **Location: Palatul Universul, Bucharest**

Agenda

Hours	Session
15.15-15.30	Welcome and registration
15.30- 15.45	Presentation of Enabling SMEs to gain competitive advantage from the use of HPC (SME/HPC) project
15.45-16.45	Round table discussion about enterprises' needs
16.45-17.00	Understanding key HPC benefits Thematic presentation of HPC International Good practices
17.00-17.30	Final remarks and Networking

Summary of discussions

The workshop aimed to introduce the SME/HPC project to regional stakeholders and to start the strategic dialogue with and between regional enterprises and higher education institutions.

The workshop was attended by 15 participants. Among them were representatives of the business community, of HEIs and NGOs coming from various sectors (urbanism, software, services, automotive) and members of the SME/HPC regional project team.

In the first session, the SME/HPC regional project team introduced the SME/HPC project and gave a short presentation about what HPC is.

The second session was a round table discussion about the enterprises' needs. The main aspects underlined were connected to the need to produce and to deliver faster, to increase efficiency and productivity and to handle large amounts of data.

The third session was a debate about how HPC could respond to these needs. As the majority of the participants had low or little knowledge of HPC, the regional SME/HPC team used the experience of the InnoHPC project, funded by the Danube Transnational programme and started the session showing a video dealing with the of HPC available at <https://www.youtube.com/watch?v=Tik7NMbnG4U&feature=youtu.be>. Afterwards, the participants worked in small groups and looked for regional, national and international HPC knowledge providers. Together with the stakeholders the participants discussed in which ways they could benefit from using HPC.

At the end of the workshop, a half an hour for networking activity was allocated, offering participants the opportunity to exchange ideas and to create the basis for a strategic dialogue.

In order to improve the quality of future events, feedback forms were distributed to the participants at the end of the conference and, after completion, they were collected by the project team. The general feedback was positive and stakeholders mentioned the idea of continuing collaboration.

Photos of the workshop



Workshop No.2**Date and Location**

- **Date: 9 June 2018**
- **Location: ArcLabs Research and Innovation Centre, Ireland**

Summary of discussions

High-Performance Computing (HPC) is the application of "supercomputers" to computational problems that are either too large for standard computers or would take too long (National Institute for Computational Sciences). Based on the potential that this type of device can have on Micro, Small and Medium-Sized enterprises (SMEs), SME/HPC - a tailor-made HPC education programme for SMEs - takes a pioneering step towards improving the awareness of the innovative potential of HPC by SMEs by co-designing tailor-made courses delivering a coherent set of competences required for the application of HPC in SME and micro-enterprise contexts.

In this report, the Waterford Institute of Technology (WIT) presents the level of awareness of HPC potential of key regional stakeholders from South-East Ireland that were present at the Dissemination Event on the use of HPC that took place in WIT West Campus on 9 June, 2018.

Dissemination Event on the use of High-Performance Computing

The event had several objectives. First, it aimed at informing attendees on the potential of HPC for SMEs and also South-East Ireland. Second, it aimed at obtaining contact information of potential regional stakeholders to contribute to the SME/HPC project.

Photos of the workshop



Workshop No.3
Date and Location

- **Date: 25 October 2018**
- **Location: Faculty of Information Studies in Novo mesto**

Agenda

Hours	Session
10.45-11.00	Welcome and registration
11.00-11.15	Presentation of Enabling SMEs to gain competitive advantage from the use of HPC (SME/HPC) project
11.15-12.15	Round table discussion about enterprises' needs, HPC situation and the role of HEI. Speakers: Iris Fink Grubačević (Faculty of Industrial engineering, dean) Simon Jeraj (Novo mesto Developmental center) Tomaž Besek (360ecm, director)
12.15-12.30	How can SME benefit from HPC – thematic presentation of Pilot action open call within InnoHPC Interreg DTP project
12.30 -	Final remarks and Networking at lunch

Summary of discussions

The main aim of the workshop was to gather regional stakeholders at an event where information can be obtained along with exploring their views and expectations from the future work in the field of bridging the gap between HPC at HEI and SMEs. The idea to start nurturing a strategic dialog was behind the motives to structure the agenda the way it was structured.

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The workshop was attended by 22 participants. Among them were representatives of the business community, of HEIs and other stakeholders from the region, who deal with development of supporting environment for SMEs, the SME/HPC regional project team, and the SME/HPC UK team.

In the first session, the SME/HPC regional project team introduced the SME/HPC project and gave a short presentation about what HPC is.

The second session was a round table discussion about enterprises' needs, national/ regional HPC situation and the role of HEI. The main conclusion was that the South east region of Slovenia is well developed, also the cooperation between HEI and SMEs is somewhat good but more promotion must be done, to highlight the benefits of HPC usage. It was emphasised that there are many good opportunities to enhance the cooperation via EU funded and nationally funded projects. As main held back was mentioned the sensitivity of the SMEs to technological changes. Additionally, the question of IPR rights emerged, with SMEs usually not having the knowledge to protect their rights, so they rather not decide to cooperate with HEI and HPC centres.

In the last session we offered a short introduction to another HPC related project and their initiatives – the open call for the SMEs to participate in the testing of virtual ecosystems for SMEs, HPC competence centres and HPC services Centres.

At the end of the workshop, participants were offered a networking opportunity together with lunch. The participants exchanged ideas and agreed on a close cooperation also in the future.

Photos of the workshop



Workshop No.4**Date and Location**

- **Date: 12 December 2019**
- **Location: Podbreznik Business Incubator, Novo mesto**

Summary of discussions

The main aim of the workshop was to gather regional stakeholders at an event where information can be obtained along with exploring their views and expectations from the future work in the field of bridging the gap between HPC at HEI and SMEs. As a result, the workshop was in the format of an informal discussion with SMEs over a “HPC with breakfast” session.

The workshop was attended by 12 participants. Among them were representatives of the business community, of HEIs and other stakeholders from the region, who deal with development of supporting environment for SMEs and SME/HPC regional project team.

Firstly, the SME/HPC regional project team introduced the SME/HPC project and gave a short presentation about what HPC is. Secondly, there was a discussion about enterprises’ needs, HPC situation and the role of HEI. Thus, the discussion also focused on success stories and good practices of HPC usage by small and medium enterprises from different sectors and the importance of technology transfer. It was emphasised, there are many good opportunities to use HPC to solve their own problems.

At the end of the workshop, participants were offered a networking opportunity with breakfast. Participants exchanged ideas and agreed on close cooperation also in the future.

Photos of the workshop



Workshop No.5**Date and Location**

- **Date: 16 January 2020**
- **Location: ArcLabs Research and Innovation Centre, Waterford Institute of Technology, Waterford, Ireland**

Agenda

Hours	Session
10.30-11.00	Welcome and registration
11.00- 11.30	Chamber Development Meeting
11.30-11.40	The SME/HPC Project
11.40-12.00	HPC for SMEs
12.00-12.30	TSSG
12.30-13.00	Visit to supercomputer Kay
13.00-13.30	Final remarks and Networking

Summary of discussions

There were 15 participants in total in this regional workshop, divided among business owners (11) and HEI staff (4). Thus, over 73% of the attendants were from businesses in Waterford. This event was made possible by initiative of the WIT SME/HPC team to support a Waterford Chamber of Commerce (WCC) meeting to be held in ArcLabs Innovation & Research Centre (WIT). The organisers of the event, from WCC, gave a slot of time for the SME/HPC project to promote its activities as well as to present on HPC for SMEs. The discussions were initially around recent developments in the city, subsequently they moved around supercomputers, HPC and ICT solutions in general. The environment was very positive to talk about HPC.

The slot of time that was run by the SME/HPC project can be summarized as follows. There was a ten-minute presentation about the project (objective, work packages, products and questions for discussion) followed by a twenty-minute presentation on the benefits of HPC for SMEs. At the end of the event, there was a tour to Kay, the supercomputer hosted in WIT.

The objectives of the workshop were twofold, (1) to contribute to a strategic dialogue between HEIs and the business community in South East Ireland regarding HPC; and (2) to disseminate information about the SME/HPC Project, which were both successfully met. Business owners who were present were surprised by the number of applications that HPC has, which can benefit their own enterprises but also the city of Waterford. They also understood the value of the SME/HPC and, as a result, their contact details are going to be used for the next project undertaking.



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Photos of the workshop at ArcLabbs

