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Towards successful European Societies

The social and economic significance of universities of applied
sciences: CARPE Conference 2015 in Turku

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CARPE in Turku

The 3rd biennale CARPE conference was hosted by Turku University of Applied Sciences from the 18th to the 20th of May 2015 with over 220 delegates in attendance, including teachers, other staff and students of the member institutions. Rector and President Vesa Taatila from Turku University of Applied Sciences welcomed the participants to the conference and reflected on the global competence of universities of applied sciences. The conference was an important opportunity for staff and students from the institutions of the Consortium on Applied Research and Professional Education (CARPE) to come together and share expertise in research, development, innovations and teaching.

The conference was organised into a series of themes reflecting the major areas of collaboration. The session themes were as follows:

- sustainability and technology
- inclusive, innovative and reflective societies
- health and wellbeing
- European entrepreneurship
- excellent management and governance in higher education
- applied research methods
- teaching and learning excellence and innovation

The conference included nearly 70 sessions and more than 60 posters. Many meetings were also arranged during the conference.

The objectives of CARPE

The objectives of the CARPE network are the following:

- Exchange and collaboration in European research programmes
- Development of joint study programmes
- Exchange of students and staff
- Establishment of a strong European reputation

The CARPE network has increased the activity of the member institutions in the European research programmes. The web site of the CARPE network www.carpenetwork.org includes a large number of research and educational projects.

CARPE members

The general agreement of CARPE was signed by four European universities of applied sciences at the first CARPE Conference in November 2011. Manchester Metropolitan University joined the network next year, soon after the Conference. The CARPE network includes the following members:

- HU University of Applied Sciences Utrecht (HU)
- Turku University of Applied Sciences (TUAS)
- Polytechnic University of Valencia (UPV)
- Hamburg University of Applied Sciences (HAW)
- Manchester Metropolitan University (MMU)

The Steering Committee of CARPE accepted the University of Debrecen as an associate member in November 2014.

Innovative conference

The CARPE network provides possibilities for networked innovation, which can be divided into transaction and co-creation innovations. Transaction innovations are those where explicit knowledge is transferred from one actor to another. Many new ideas come from other CARPE members or partners. Co-creation innovations or co-innovations are created in collaboration among partners in applied research and development projects.

Typically, conferences include plenary sessions and paper presentations, which lead to proceedings and journal publications. The purpose of the CARPE Conference is not only in the presentation of papers, but the experts also present ideas for collaboration so that joint projects can be started. Many of the presenters proposed innovative ideas for joint research and development projects and called partners for the projects to apply funding from the European Union or any other funding source.

Another innovative idea is that the conference shares knowledge about higher education management and support services. For example, the importance of many research groups was demonstrated in the CARPE Conference in Utrecht in 2011. The good practice of research groups encouraged Turku University of Applied Sciences to create its own research groups in 2013. For more information: <http://www.tuas.fi/en/research-and-development/research-groups>



Conference themes

Sustainability and technology

The session “Transition Zero – A workshop how to succeed a transformation towards CO₂ neutral built environment” by Mr Ivo Opstelten from HU presented and discussed greenhouse gas and energy saving in a built environment. The challenge is how to convert buildings and traffic to energy neutral? The buildings can be transferred to energy neutral so that they utilise geothermal and solar energy, but traffic has much more challenges. An important idea is also to build energy-efficient buildings so that they do not cause any extra costs for the owner.

The session included many innovative ideas. For example, the use of electric cars is supported by free parking places in the cities. Another interesting finding was that the public traffic was made free for those who live in Tallinn in Estonia, where the loss in ticket income was about 20 million euro, but the public income was about 25 million euro, because many inhabitants officially moved to Tallinn. Electronic tickets can be used to monitor the traffic flows in the different parts of the region. The third innovative idea was to warm a building to operating temperature only when it is in use. The improved technology would reduce the heating costs.

The session “Evaluating the impacts of the CO₂ Performance Ladder on energy management in construction industry firms” by Mr Martin Rietbergen from HU presented a CO₂ Performance Ladder, which attracted attention among the participants. It is a Dutch energy management instrument by which companies prove their plans for CO₂ reduction and their awareness for saving energy. An increasing number of companies use this instrument in Utrecht. The session had a positive view about the voluntary use of the CO₂ Performance Ladder.

The session “Older learners and digital technologies for active ageing – making a difference across Europe to individuals, communities and society” by Ms Josie Tetley from MMU discussed the challenge of elderly people in using digital technologies. For example, elderly and young people could collaborate. They could jointly order services and products from the internet under the supervision of the young generation. Libraries could arrange places for the workshops of digital technologies.

The session “Circular economy in the building sector” by Ms Nadia Verdeyen from HU presented an innovative idea that small and medium-sized enterprises could recycle the spare materials of large enterprises and find new applications for them. Another innovative idea can be found in Utrecht, where 50 000 houses are renovated to energy neutral by 2020. It was recommended that the multidisciplinary knowledge and skills of higher education institutions should be used to promote circular economy. For example, art can be used in all phases to promote change in the behaviour of general public.

The session “Photochemical processes of environmental relevance” by Antonio Arques from the UPV presented an environmental application of photo chemistry which provides many pathbreaking research questions. The topic raised the idea of European collaboration and exchanged experiences with other countries. The HU has a project which studies how the soil containing waste biomass can be used to grow plants, which can be utilised to extract valuable chemicals.

Inclusive, innovative and reflective societies

The aim of the session “Sustaining communities – a workshop for collaboration” by Ms Jenny Fisher from MMU was to bring together CARPE members who are interested in exploring research and teaching in the area of sustainable communities, social care, health and wellbeing. Ideas were presented about a cross-institutional project for which the group can apply funding. MMU has an initiative about social pedagogy and volunteering. HU has many projects about community development and how communities can be strengthened. Projects are typically carried out with students and as collaborative research. The themes include school drop-outs, aggression in the streets and alcohol abuse. TUAS has community art projects and a collaborative project with MMU.

The session “The social function of sports” by Mr Stijn Verhagen from HU tried to find answers to the question: What kind of interventions are successful in improving people’s opportunities to participate in society? Behavioural and contextual interventions were identified in various social contexts. The session discussed the project idea “coaching power”, which emphasises that the youth at risk should be given a change to grow also outside the football terrain, such as at school and work and the youth should be given safety and training skills. The project was planned to be carried out through outreaching, internships and research.

The session “Football and its communities” by Ms Annabel Kierman from MMU continued the previous themes and asked the question: Could football be a good vehicle for promoting wellbeing and health? Football clubs interact with a greater number and diversity of communities, but the Centre for the Study of Football and its Communities (CSFC) of MMU aims to shine a critical light on football’s relationship with its communities, both in the UK and elsewhere. In Finland, sports is not as connected to communities as in the UK and the Netherlands. The Finnish project “Arvoa urheilusta” focuses more on the commercial aspects, but TUAS is interested in learning about the community aspects of sports in other countries.

The session “Social investment policies strengthening communities in Europe” by Mr Rob Gründemann from HU aimed to identify innovative approaches to social welfare, welfare reform on individuals and communities, establish partnerships and share knowledge. MMU is involved in a project where social investment is about using government money to create personal budgets. The approach allows people with social care needs to have a degree of control over the care they receive. HU has a project to build a new district where people from different backgrounds such as vulnerable, less affluent, students and former homeless people all work and live together. TUAS has a project where art is used as a tool for change and allows communities to take part.

The aim of the session “Towards future career paths” by Ms Anna Tonteri from TUAS was to collect themes for career guidance and future career paths. The session included the presentation of a project of TUAS “Vipua ja vetoa töihin”. The project aimed at getting TUAS students work through the development of career guidance services in the field of Finnish higher education and building stronger networks between counselling professionals.

The session “Managing social media” by Ms Sanna Merisalo and Mr Anttoni Lehto from TUAS discussed how to manage social media and reputation. Rumours and news spread quickly and organisations need to react fast. It is important to find a balance between when to react or not to react. Teachers are often advised to use social media, but they do not have enough guidance how to address the challenge of social media. The participants shared their experiences of managing social media.

Health and wellbeing

The session “The meaning of ‘care’ in an age of austerity” by Ms Lucy Burke from MMU discussed the following questions in the World Café session with four tables: 1) How does the state regulation of care impact upon the qualitative and emotional dimensions of caring? 2) Is it possible to reach compassion and empathy in academic and training programmes for care and health professionals? 3) How might we develop and evaluate the role of creativity activity in fostering compassion and empathy in care settings? 4) How might we work together to devise collaborative projects in this area?

The session “Optimizing rehabilitative care for individuals with chronic conditions before, while and after major amputation” by Ms Uta Gaidys from HAW discussed eHealth and asked the questions: 1) Should technology be taken more into use of patient care, and 2) should patients be included in decision making?

The session “The social and economic significance of the universities of applied sciences at home and administration” by Ms Harriet Wittink from HU discussed the inclusion of students in projects, making a student survey and qualitative study of the quality of student life.

The session “Increasing ethical competence in midwifery education and practice” by Ms Mari Berglund and Ms Marjatta Häsänen from TUAS asked a question: How to increase the ethical discussion between the tutor nurse and students during the practical training?

The session “Research in process standardization in hospitals” by Mr Pascal Ravesteijn from HU discussed the sharing and developing of best practices to support knowledge exchange activities within the domain of healthcare in a university setting. It also discussed the e-mail community within the CARPE institutions to gather best practices.

The session “Recruiting students for studies about health – which method works?” by Mr Ralf Reintjes from HAW discussed the themes how to reach students and how to interfere their way of living outside education. A survey was planned throughout the CARPE community.

The session “Interactive behavioural monitoring for cognitive state identification” by Mr Nicolas Costen from MMU presented technology for monitoring people’s behaviour. The purpose is to automate the assessment of dementia by developing diagnoses, improving ‘stratification’, regular re-testing and assessing directly disease progression. The purpose is an early stage of assessment of Alzheimer’s disease, vascular dementia and Fronto-Temporal dementia. The researchers from MMU know how to use technology for monitoring people’s motion, action and facial behaviour. They want to know more about the psychology. In the CARPE network they want to get in touch with groups which have developed serious games.

The session “Urban health – Living and wellbeing in cities” by Ms Outi Kivinen from TUAS included a presentation about the development of living environment in Turku. A multidisciplinary project of preventative child welfare work, Iceheart, is an innovative early intervention operating model, which utilises the special role of adults, the team method and sports. It provides long-term professional support for children who are at risk. Social services, physiotherapy, occupational therapy and nursing students were involved in the project. International experiences were exchanged in the session and a new project was planned.

The session “Dementia meets the service sector – possibilities and range of a training program” by Mr Ralf Schattschneider from HAW presented a German training programme targeted to businesses, institutions and volunteers. The identification of dementia is a challenge especially in cases where patients occasionally act normally. The training programme included learning about the diagnosis and experiences of dementia patients and supporting them.

The session “Health care needs of informal carers with a migration background” by Ms Corinna Petersen-Ewert from HAW discussed German experiences about immigrants’ health care. Health care is challenging in Hamburg, because 28% of the residents are immigrants. Immigrants’ health service is provided by informal carers who should pay attention to the language and cultural differences. The conclusion of the session was to develop a network to discuss formal and informal health care.

European entrepreneurship

Ms Riikka Kulmala from TUAS presented a project in her session “From student project to enterprise – Case: capstone innovation project”. She asked experiences about how to organise projects between students and customer organisations. The purpose of the project is to make a prototype of a product or service that an organisation needs. The visions of student groups are realised in start-ups. Experts from universities and other organisations are used to give feedback about the project.

Ms Jennie Shorley from MMU presented a project in her session “European university–industry perspectives: SME support and enterprise education”. The project was still underway. The purpose was to develop an e-course and work more closely with small and medium-sized enterprises. The session came to the conclusion that there is a huge variety of experiences about working with enterprises in different countries.

Mr Leendert de Bell from HU presented a project in his session “Entrepreneurial ecosystems”. He presented the key elements of the ecosystem and entrepreneurship and identified some challenges. He proposed next steps for the CARPE members to combine and share experiences, map local ecosystems and conduct joint research.

Mr Gerrit-Jan Lanting from HU conducted the session “Good governance, but no code: Research into governance in SMEs” and presented that HU is developing a model to assist entrepreneurs in formulating their vision on good governance to achieve success, innovations and flexibility. HU wants to help especially small companies to grow and use Erasmus funding for the project.

Excellent management and governance in higher education

The session “Quality assurance in the student mobility” by Mr Ville Paananen from TUAS discussed the need to promote student exchange between the CARPE members and presented many innovative ideas. One of them was to create a common CARPE Study Guide for students interested in studying at another CARPE institution. The CARPE Study Guide should also include information about credit transfers between the institutions.

The session “Measuring and assessing internationality and internationalisation” by Ms Anu Härkönen from TUAS discussed the internationalisation strategies and indicators for measuring the internationalisation of the CARPE institutions. The UPV uses the standardised EFQM Excellence Model, which is widely used by business companies. Internationalisation is one of the key factors in the strategic plan of MMU. HU has set target values for the student mobility. The session concluded that it is important to mention CARPE in the internationalisation strategies of the CARPE institutions. An idea was presented to collect the internationalisation strategies or goals together and benchmark each other.

The session “Internationalisation: Encouraging international student mobility” by Ms Yasmin Hussain from MMU discussed forcing students to go abroad and the funding of student exchange. A project idea was planned about internships and training between the CARPE members.

The session “Let’s go digital and online – or do we need to? Meeting the digital natives for guidance and services at the international office” by Ms Leena Saarinen, Ms Antonella Storti and Ms Anne Räikkä from TUAS discussed and shared experiences about the possibility to use social media for student counselling. The service on social media was noted important but not to be available on a 24/7 basis.

The session “CPD for academics to implement institutional change” by Ms Rachel Forsyth from MMU discussed continuous professional development to implement institutional change. MMU has online training courses available for staff. The CARPE members are free to join the programme and share practices and experiences.

The session “Change Management – New demands regarding leadership aspects, internal and external communication and management concepts” by Ms Petra Düren from the HAW presented a case where 18 students in early childhood education travelled from Hamburg to Turku. The session discussed the possibility to enlarge the project to the CARPE network and find funding for the project. An excellent idea was presented that the CARPE International Week should be arranged for students at one of the member institutions. The session concluded that TUAS will arrange an International Week in Turku.

Applied research methods

The session “Continuous adaption of social process modelling” by Ms Julia Padberg and Mr Michael Köhler-Bußmeier from HAW included the characterisation of social processes and their improvement. HAW proposed a framework for the continuous adaption of social process modelling. The collaborative software (groupware) can be used to transform the way documents and rich media are shared in order to enable more effective team collaboration. HAW is seeking people who feel the need for supporting self-organisation in social work in a systematic, continuous and computer-aided way. HAW proposes to model, simulate and analyse the social processes and provide the skills and methods for the description and realisation of such a framework.

The session “The impact of impact! Learning from the UK’s Research Excellence Framework & Pathways to Impact Agendas” by Mr Sam Gray from MMU examined the ways in which the impact agenda has changed the approach of researchers in the UK and explored the transferable lessons from the Research Excellence Framework and Pathways to Impact Agendas. A question was asked: What is impact, what are the benefits for universities, researchers and end-users and how is impact managed, supported and resourced? The suggested outcome of the session was an impact-themed CARPE network that provides support, learning and guidance on the impact.

The session “An environment for cooperative modelling in mixed reality” by Ms Birgit Wendholt, Mr Christian Blank, Mr Malte Eckhoff, Mr Iwer Petersen and Mr Raimund Wege from HAW identified the critical factors in a mixed reality environment for distributed collaborative modelling. Users on remote sites collaborate on a virtual 3D model combining real (tangible) and virtual objects. Each participant sees the model as overlay to a common scene from an individual perspective through optical see-through glasses. The scene visualises all other users on their respective site, such that all of them can perceive the behaviour of other partners. Users interact by hand through object-related gestures. Due to the mobile equipment, users can inspect the virtual model by moving around in the scene. HAW is currently developing a software system that will integrate all the facets discussed so far. The software will address the system architecture and the working state of each subsystem. The research group decided to start planning a collaborative project on this theme and topic, together with TUAS Game Lab and other CARPE members.

The session “Research methodology for the ambitious universities of applied sciences: Contributing to rigour and relevance” by Mr Daan Adriessen from HU asked the following question: How can rigour and relevance be combined in practice-oriented research? Research in traditional universities often prioritises rigour over relevance. For research in the universities of applied sciences, the solution is not that simple. They do ‘practice-oriented research’ that is aimed at producing insights that are both directly relevant to practice and that contribute to theory. Prioritising rigour over relevance would make this impossible, as would be doing the reverse. The objective of the session was to develop a research agenda together and a network for cooperative research among the CARPE members interested in methodological issues regarding practice-oriented research.

In the second part of the session Mr René Butter from HU asked a question about research methods in practice-oriented research. Practice-oriented research is primarily social research at HU. A lot of publications do not involve any research methods. A research was suggested for the CARPE network to compare and combine the results on this topic.

Teaching and learning excellence and innovation

The Round Table session “Project idea – Carpe working effectively online” by Ms Sanna Simola from TUAS discussed language skills. The motivation of this topic was that the language skill is an enrichment and it is impossible to sell products and services if one cannot speak. The goal of the Round Table session was to plan a joint international online course with Erasmus+ funding with the CARPE members.

The World Café session “The educational technology horizon: Discussing trends and their impact on teaching practice and research” by Mr Willem Spee from HU discussed and shared experiences about the online learning and teaching. An important question was: What platform would be good for the co-operation between students and teachers. HU has experiences about Massive Open Online Courses (MOOCs). HU has a lot of online teaching but few MOOCs.

The Round Table session “Educational innovation and blended learning” by Mr Erik Hasenack from HU discussed the experiences from Utrecht. Blended learning is expanding with great enthusiasm. A participant in the session suggested: “One exercise for students is to write an essay and peer review two essays online.” The profession of a traditional teacher is changing to the role of a coach.

The session “eTUBE – Professional development of online teaching skills at TUAS” by Ms Marjo Joshi from TUAS presented experiences on online teaching and noted that it is important to teach teachers in online teaching and achieve high quality online teaching skills. The participants shared experiences on online teaching, which is common in the Netherlands. Some of the teachers hope to get a better platform for online teaching. The session concluded that it is good to empower students, not to control them all the time.

The session “Education, engagement and employability” by Ms Joanna Verran from MMU discussed students’ skills development and science communication. Inspiring examples were presented on mixing art and science. The participants shared examples and discussed student employability.

The session “The roll of the examination board (or comparable commission) in examination quality assurance” by Ms Ingrid Meijer from HU discussed quality and especially the quality of diplomas. The session also discussed the differences between the institutions. Contact information was changed and the participants who are working with quality issues are going develop their collaboration in the future.

The session “Experiences on, and further development of Master of Engineering education at TUAS – Teacher as a bridge builder between university and working life” by Mr Osmo Eerola from TUAS discussed how to plan the curricula and courses to meet the current working life needs of students with BSc degree and several years of working experience. The education balances academic and practical contents and special and general issues. The participants actively discussed the current working life needs and the curricula differences.

The session “Teaching heterogeneous student groups in engineering design” by Ms Anna Usbeck from HAW discussed how to teach heterogeneous student groups. She presented examples about the change from lecturing to interactive seminars. Participants shared experiences and examples especially from the engineering design point of view.

The session “Active vibration control with rotary shaft seals – A new strategy for sustainable mobility” by Mr Thomas Kletschkowski from HAW presented innovative ideas about the active vibration control with rotary shaft seals and mechatronics. The session included questions and lively discussion about HAW and the strategic research about mobility and transport.

The session “Communication in mobile and virtual work” by Ms Marjatta Rännäli from TUAS presented a project called Communication in Mobile and Virtual Work (CoMoViWo). The project consists of five partners which include MMU, UPV and TUAS. The participants were divided into small groups and they discussed the current practices in virtual communication in working life.



Concluding comments

CARPE strengthens the European economic and education policy

International trade is an important motivation for the European coverage of the network. Europe is an important market area for the international trade of the countries where the members of CARPE are located. For example, the share of export of the Finnish domestic product has been nearly 40% during the last few years and the share of Europe of the export has been about 55%. The member institutions of CARPE want to support the international trade and promote other international activities.

Another motivation for the CARPE network is the funding from the European Union for research and development projects and student and staff exchange. These activities support the economic and social cohesion in the European common market.

CARPE is important also from the point of view of the Finnish education policy. The Finnish Ministry of Education outlined the guidelines of internalisation in the Strategy for the Internationalisation of Higher Education Institutions in Finland 2009–2015. Turku University of Applied Sciences included the international strategic partnership in its strategic plan in 2010. The strategic partnership agreement of CARPE was signed 2011. The strategic partnership has remarkably increased the number of research and development projects, funding from the European Union and staff and student exchange.

Recent literature about CARPE

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