

2nd Meeting of European Professional Development Centres of Maths and Science Education

The second meeting of European Professional Development Centres (PD Centres) in maths and science education, organised by the University of Education Freiburg, took place 6-7 May 2015 in Vilnius, Lithuania. Around 20 representatives of maths/science professional development centres and other organisations with similar aims like Ministries of Education from 12 European countries attended the meeting (see [meeting schedule](#)).

The meeting of the evolving professional development centres network facilitated learning about each other's activities and experiences, a discussion of the challenges and successes of the centres as well as the identification of areas for future knowledge exchange and collaboration.

Two sessions were devoted to an exchange about the „Scope and activities of PD centres“. Scientix (the European community for science education), which is coordinated by EUN (European Schoolnet) and to which the University of Education Freiburg has established close links presented their activities. The Scientix workshop outlined many possibilities of how teacher PD centres as well as teachers can profit from the European platform of Scientix. A reception, together with the Consortium of the mascil project (a project focusing on teacher professional development in the area of inquiry-based learning which is coordinated at the University of Education Freiburg) provided networking opportunities for the professional development centres and the mascil partners (renowned researchers and developers in the field of maths/science education classroom and PD materials). In a forward-looking session, the PD Centre meeting participants identified areas for joint learning and areas where future collaboration appears most purposeful.

Some of the most important challenges, outcomes and ways forward discussed

Important to the participants was to find ways of sustaining the meeting series of PD Centres that grew out of the Essen 2014 mascil/DZLM conference “Educating the Educators” which focused on scaling-up teacher professional development. The University of Education Freiburg, in its role of coordinating the network, is therefore currently taking meeting outcomes forward and organising further meetings (see future meeting dates below). It is also the aim to further enlarge the PD Centre network in the future.

A challenge identified by professional development responsible institutions in European countries is a lack of close and steady collaboration between those actors needed to effectively and eventually scale-up teacher professional development in maths and science education. More cooperation between the most important actors – PD centres, universities and researchers in the field, schools and teachers as well as the policy-making entities – is seen as needed. How to overcome this currently still large barrier, and in particular also on how to foster an upward influence of PD Centre's work towards the policy level, are themes where all local PD Centres will profit from further exchange. Therefore, work towards establishing a European PD Centre network will be a first step forward and also help to strengthen the voice of the implementation and practice-side, which PD Centres represent, both at the local as well as the international level.

Another important issue for future collaboration is seen in drafting common standards and guidelines or PD planning, delivery, implementation and evaluation. These should be based on research on teacher professional development so that this is one of the concrete areas why collaboration between research and practice is needed (for research needs on teacher PD see also [mascil newsletter](#) April 2015). Standards and guidelines – based on research and including evaluation – will help to secure quality. High-quality PD for teachers will in turn maximize impact and sustainability of learning outcomes. In order to achieve this explicitly, defined principles for teacher

professional development are needed (including the integration of professional development into teacher professional profiles).

Professional development of the highest quality (corresponding to the needs of teachers, latest research-based standards, transferable to schools) is also dependent on educating teacher educators to the highest quality standards. In some countries, problems exist in recruiting teacher educators, facilitators and multipliers.

The exchange of knowledge, experiences, materials as facilitated by a PD Centre network as well as the exchange of “people” through mobility periods at another institution are deemed to be most profitable ways of addressing current needs in scaling-up teacher professional development in maths and science education.

Future meetings:

The 3rd meeting will take place from 2-3 December 2015 (exact days to be confirmed) in Sofia, Bulgaria. Further meetings are planned for May 2016 in the Czech Republic as well as in winter 2016 (here as part of the mascil/University of Education Final Conference).

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