

# 10 Years of MEASNET

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ENGLISH

10 years ago MEASNET, the Measurement Network of Wind Energy Institutes, was founded by seven well known European wind energy R&D institutions. The foundation was the result of two jointly performed research projects which were subsidised by the European Commission from 1993 on. In these projects extending over four years the measurement and quality requirements for altogether four important measurements applied in the wind energy business had been worked out, as well as the "Terms of Agreement" which settled the internal co-operation rules of this interest grouping. The reason to initiate MEASNET was relatively simple. In the rapidly growing wind energy industry of the early nineties of the last century the problem came up that measurements done by different institutions on wind turbines showed considerably deviating results, especially concerning the power curves of a wind turbines. As an example may serve the anemometer calibration with at that time up to 6% difference in wind speed or consequently up to 20% in power output. Today, thanks to the methods applied by MEASNET these differences are below 1 % in wind with an influence on power of 3 % only. The industry made use of these differences by choosing the most favourite measurement for their marketing activities and by contracting those measurement institutions which

provided the best results. For the European Commission and for the wind energy supporting governments an unacceptable situation, especially because the power curve of a wind turbine had influence on the financial promoting systems for wind energy existing in these days.

After finishing the two introductory research projects, at the beginning of 1997 a new era with no further financial support by public money started with the foundation of MEASNET by the institutions CIEMAT (Spain), CRES (Greece), DEWI (Germany), ECN (The Netherlands), NEL (Great Britain), RISØ (Denmark) and Windtest Kaiser-Wilhelm-Koog (Germany). With the mutual interest in performing high quality measurements, the founding members have succeeded in developing MEASNET into a real quality brand in wind energy. Power performance, power quality, acoustic noise and anemometer calibration are the measurements which can be offered by the members in comparable quality and with high accuracy. The advantage for the industry are not only the developed high quality measurement procedures, but also the possibility to choose between several measurement institutions of the same quality. For investors and lending banks MEASNET became an important partner and more and more also a

# Important Information for MEASNET Clients

In Madrid on May 6<sup>th</sup>, 2007, the Council of Members discussed the question if affiliates of MEASNET members are automatically also members or if they have to join the group passing all candidate assessment procedures and later will be treated as an independent additional member. This question came up because some of the members have branch offices or own legally independent affiliates in and outside of their home countries.

Two of the most important requirements for members of MEASNET laid down in the "Terms of Agreement" are to be independent from industry and to have the accreditation according to ISO/IEC 17025 for the MEASNET approved measurements. For the accreditation two possibilities exist:

- 1) Each affiliate or branch office has its own accreditation, that means has fulfilled entirely the accreditation conditions independent from the parent company.
- 2) The affiliates and branch offices are part of a multi site accreditation, that means among other things that the technical/scientific measurement competence is controlled by the experts of the parent company.

Based on this principal difference the Council of Members decided the following:

- In case the parent company and the affiliates and/or branch offices have a multi site accreditation according to ISO/IEC 17025 an additional MEASNET approval of the affiliates and/or branch offices is not necessary as far as the accredited and MEASNET approved measurement(s) of the parent company are also accredited by ISO/IEC 17025 in the affiliates and/or branch offices.
- In all other cases the affiliates and/or branch offices are no MEASNET members and are not allowed to use the MEASNET stamp in their measurement documents. In that case the MEASNET approved measurements have to be performed by the accredited staff of the parent company.

The affiliates and/or branch offices with their MEASNET approved measurements have a MEASNET membership document with the approved measurements listed (see also [www.measnet.com](http://www.measnet.com))

must for a well done wind farm project. Today MEASNET calibrated anemometers and MEASNET measured power curves reduce the uncertainty of the wind farm's energy prediction and thus result in higher probabilities of exceedance levels Pxx of the energy yield prediction. The higher measurement qualities offered by the MEASNET members therefore are not a luxury but an advantage which has a real money value when speaking with the banks about project financing. MEASNET measurement quality helps to avoid unlovely surprises. For example when a project developer is confronted with the results not satisfying of a due diligence caused by the absence of MEASNET quality.



The Executive Chairman Mr. Molly trying to overcome the noise level at the MEASNET reception at EWEC 2007

MEASNET accepted measurements can be performed only by MEASNET members. It is not sufficient for a service provider to simply apply the MEASNET measurement procedures which are public and can be found on the MEASNET homepage. The important difference is that only MEASNET members participate in the internal Round Robin tests which prove if a member is fulfilling the required measurement qualities or not. For the customer the difference can be seen easily by the MEASNET stamp on the measurement document, which shows the name of the member institution.

Today MEASNET has 15 members, one from USA, all others

# Members of Measnet

## Full members:

- CENER - Centro Nacional de Energias Renovables, Spain
- CRES - Centre for Renewable Energy Sources, Greece
- DEWI GmbH - Deutsches Windenergie-Institut, Germany
- ECN - Energieonderzoek Centrum Nederland, The Netherlands
- RISØ - National Laboratory, Denmark
- TRIPOD Wind Energy ApS, Denmark
- WINDTEST Kaiser-Wilhelm-Koog GmbH, Germany
- WINDTEST Grevenbroich GmbH, Germany
- Barlovento Recursos Naturales S.L., Spain
- NREL - National Renewable Energy Laboratory, USA

## Associated members:

- WIND-consult GmbH , Germany
- IDR/UPM LAC - Laboratorio de Calibración en Túnel Aerodinámico, Instituto Universitario de Microgravedad "Ignacio Da Riva", Universidad Politécnica de Madrid, Spain
- Svend Ole Hansen ApS, Wind Engineering, Denmark
- Deutsche WindGuard Wind Tunnel Services GmbH, Germany
- Ingenieurbüro Dr.-Ing. Dieter Frey, Germany

## Licensed Affiliates/Branches:

- DEWI GmbH - Deutsches Windenergie-Institut, Sucursal en España, Spain
- Windtest Ibérica S. L., Spain

Please visit [www.measnet.com](http://www.measnet.com) to see the MEASNET approved measurements for each member.

from Europe. But the worldwide booming wind energy and the increased request for high quality measurements by project developers, investors and banks attracts more and more measurement institutions to become members. At the moment a first candidate from Asia is passing through the quality assessment procedure, and many others from all over the world have already shown their interest in membership.

Ten years MEASNET is the success story of an organisation of voluntary members which are in commercial competition with each other. For all of us a good reason to celebrate the ten year anniversary. At the last EWEC conference in Milan MEASNET sponsored the exhibitors' reception on the evening of the eighth May and invited all conference participants and exhibitors to join the event. The welcome words of Executive Chairman Jens Molly unfortunately

were lost in the bad acoustics of the hall and the poor quality of the microphone system. Perhaps MEASNET should extend its activities in acoustics to find harmonised rules and procedures for the quality requirements and lay-outs of microphone systems.

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