

## **MEDIPIX2 in X-ray Diffraction: Applications & Developments**

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Via the technology transfer programme of CERN, the MEDIPIX2 detector [1] has now become available for use in materials analysis equipment in industrial settings.

The integration of the MEDIPIX2 detector in our line of commercial X-ray diffraction equipment has required some special developments with respect to the read-out electronics and to the general way of use.

We will report on those developments.

Special applications are chosen as examples for the successful integration of this new technology. The fields of high-resolution XRD and micro-beam XRD will be high-lighted.

As the next step of important innovations, we aim at the development of larger area X-ray detectors. A consortium has been established to develop a fully tileable detector module, based on Quad Medipix2 assemblies. Funding for this RELAXD [2] (High REsolution Large Area X-ray Detector) project has been granted by national Flemish and Dutch governments, and it has obtained the European EUREKA status. We zoom in on the high-bandwidth read-out electronics platform and will describe the other aspects, like 3D integration, as well.

### **References**

[\*] PANalytical is a SPECTRIS company, formerly PHILIPS Analytical

[\*\*] NIKHEF is the National Institute for Nuclear Physics and High-Energy Physics of the Netherlands

[1] [www.cern.ch/medipix](http://www.cern.ch/medipix)

[2] [www.eureka.be](http://www.eureka.be) project registration no.: E!3624