1. Introduction. (50 words max.)

The activity of SIG8 followed past interests and events, to hold together and support the powder diffraction community in Europe. As is well known, SIG8 is identical with the scientific committee of the European Powder Diffraction Conference (EPDIC), held every two years, so that our SIG is in a special position to coordinate activities between EPDICs and ECMs

2. SIG web site:

SIG8 url: http://sig8.ecanews.org/ see also http://epdic.ing.unitn.it/

3. Number of ECA individual members registered with the SIG according to (http://www.xray.cz/eca/im-payment.htm)

SIG8Powder Diffraction293(224 in 2015)

4. Existence of a SIG mailing list: refer to EPDIC events

Address of the mailing list: with the Chair person of each EPDIC event (last one, Bari, 2016, the list is with Dr Angela Altomare)

Number of members in the SIG mailing list: > 400

5. Approximate total number of researchers involved in the SIG (please indicate the basis for the estimate)

SIG8 currently has 293 registered members (from http://www.xray.cz/eca/eca-sig.asp?id=SIG8), while ECMs sessions related to Powder Diffraction are usually attended by a considerably smaller number of people. Most of the attendance appears at EPCID events; last one, very successful, was held in BARI (see details below) and gathered more than 400 scientists.

6. List of MS organized by the SIG at ECM30 in Basel

MS of direct interest to SIG-8 where in Focus Area 5 (including SIG 6, 8, 9). SIG8 was also related to other MS, a Keynote talk (Lehn) and Plenary talks.

- MS 42 Advances in neutron scattering under non-ambient conditions
- MS 39 X-Ray diffraction on the μ s to ps time scale
- MS 43 Combining x-ray diffraction and other techniques for in situ and operando studies
- MS 44 Total scattering: pdf analysis and diffuse scattering in X-Ray, neutron and electron diffraction
- MS 46 Computational tools for theoretical chemistry in crystallography
- MS 45 Measuring data quality
- MS 41 The use of X-ray, electron and neutron scattering in nanoscience
- MS 40 New detectors for high energy x-ray applications

7. Past Activities other than Microsymposia at ECM

SIG8 operates according to decisions most often taken at last meeting of the SIG, which in recent past were Aarhus (Denmark) in June 2014 and then Bari (Italy) in June 2016. As already remarked, SIG-8, being identical with the EPDIC Committee, has the double role of steering the European Powder diffraction Conference and consulting for ECA/IUCr and, more generally, the powder diffraction community in Europe.

8. Future/Programmed Activities.

SIG8 is currently engaged in the organization of next EPDIC, which will take place in Scotland, at Edinburgh, July 1-4, 2018. This is also the site for next meeting of SIG8. While taking care of the scientific organization of the event, including two awards (respectively given to a Young Scientist and to a Distinguished Powder Diffractionist), we are also collecting candidates to organize EPDIC events in 2020 and 2022. So far we gathered several proposals, as a clear sign of vitality of this event and related community. The PD community still grows, drawing interest for its inherent interdisciplinary. Cross-contamination is most effective with pharmaceutical industry and bio-oriented research in recent years.

In the past there has been a lot of talking about a joint EPDIC-ECM meeting, after the only one we ever organized thanks to the efforts of H. Fuess at Darmstadt a few years ago. After that event (August 2010), unfortunately, there has been little compatibility with ECMs. Main issue, there is no way to compress the EPDIC program to limitations posed by ECM Mss, or to make different arrangements, so the organization of a joint event, if this is considered as a good idea / scientifically valid / accepted by the sponsor and communities, should be tried with an open mind and on a totally fair basis – same 'importance' to each meeting.

9. Other matters.

Please see previous report – same issue. SIG-8 has provided suggestions to all ECM conferences over the past years, and has always responded the requests by the different ECM organizers, even if EPDIC events were programmed on the same year. We all think there is full compatibility between EPDIC and all ECA/IUCr initiatives, and it is this double appointment which avoids conflicts and duplications. However, SIG-8 does not appreciate the strict rules which ask for a different SIG delegate at each new ECM. It would help to keep in charge the same person for at least a few conferences.

It is underlined that all of this is a voluntary work; we all know it is more and more difficult to find time and means nowadays to carry out these commitments; also participation in events is somehow declining because of costs, increasing importance of alternatives (internet). So the rules – all rules of scientific organizations - should try to make life easier, possibly, to all volunteers in SIGs as well as any other committees. Critical issues at ECMs are: (1) the above mentioned rule of changing the SIG delegate every new ECM; (2) total lack of any support to invited speakers at ECMs (more and more difficult to find good speakers), not to speak of chair persons. Waiving some fee would help, as it is a practice of all EPDIC events.

Next meeting of the SIG-8 / EPDIC Committee will be at Edinburgh next July 2018.

10. Brief annual activity report (100 words max.)

(1) Contacts with ECM organizers and required organizations; (2) evaluation of several requests of endorsements (conferences, workshops, schools); (3) ongoing activities, collaboration and relations with the ICDD; (4) running the EPDIC events, programming the next one. We keep underlying the importance of what written above, as critical issues.

11. List SIG officers, name and e-mail, and specify their main function in the SIG:

Chair: Paolo Scardi, Trento, Italy, paolo.scardi@unitn.it **Vice-Chair:** Robert Cernik, Manchester, United Kingdom, r.cernik@manchester.ac.uk **Secretary:** acting-secretary is Michela Brunelli in most meetings of the SIG8-EPDIC committee