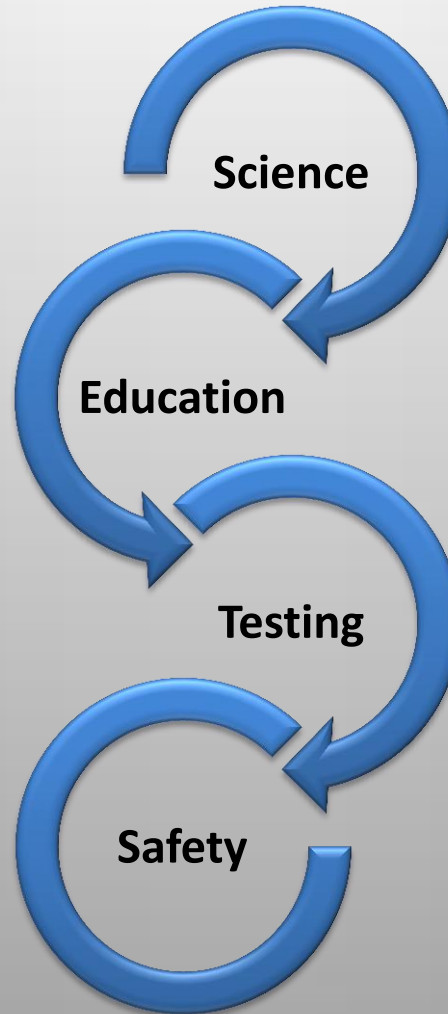
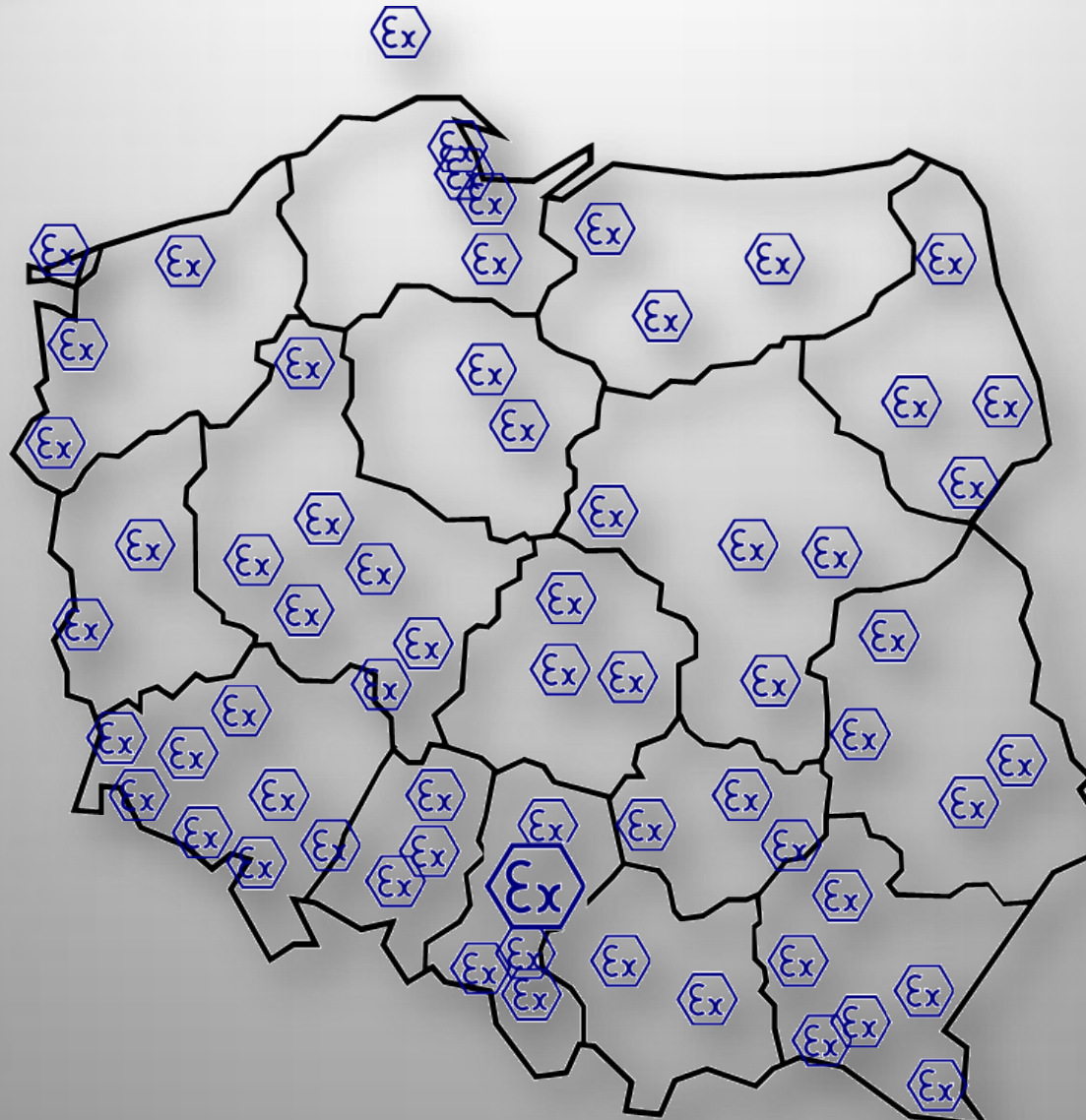


Poland: Ex safety since 90 years

Michał Górny
GIG – KD „BARBARA”



Ex activity in Poland



Experimental Mine „BARBARA” the oldest part of Central Mining Institute



Narodowe Archiwum Cyfrowe, sygn. 1-G-1271

Experimental Mine „BARBARA”

- Ex safety since 1925
- Formation of Polish Ex-standards (first Polish standard PN-E 17 dated 1929)
- Polish construction of passive trough barriers
- Testing laboratories - the main in Poland
- Certified laboratory according to ISO/IEC 17025 since 1995
- Notified Body (ATEX) no 1453 since 2004
- IECEx (ExCB oraz ExTL) since 2010

Large scale testing – coal dust explosion



KDBEx Dust explosion testing



The 5 m³ explosion chamber



The 1 m³ explosion chambers

KDBEx Flame arrester testing



Explosives testing

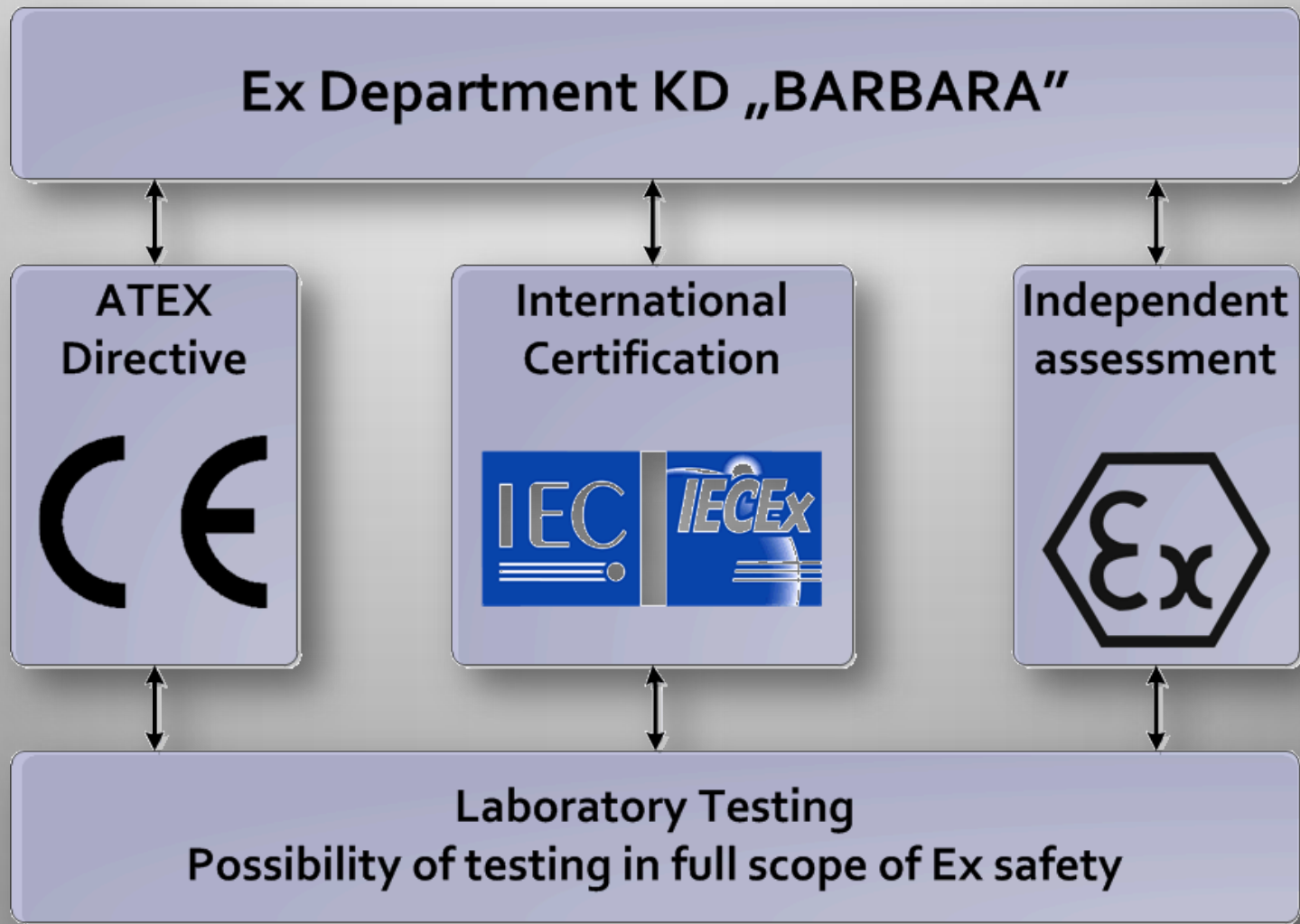


Experimental Gallery



Bunker for explosives testing

Ex department SCOPES + training and science activity



Testing in the years of '30:

**DO PRACY
W GAZACH WYBUCHOWYCH**

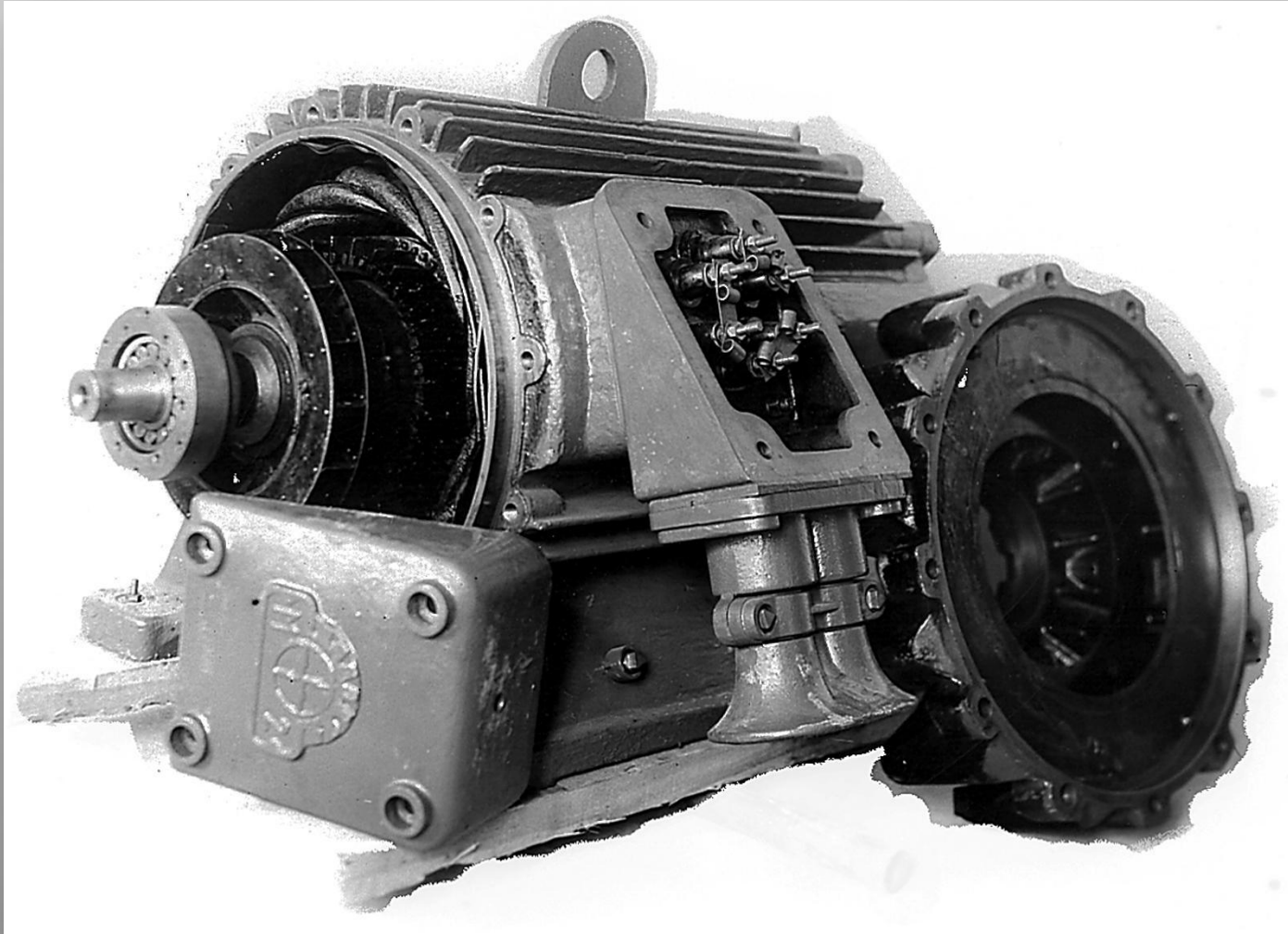
dostarczamy: Silniki 3 fazowe z wirnikiem zwartym
Silniki 3 fazowe z wirnikiem
z pierścieniami ślizgowymi
Skrzynki przyłączowe olejowe
wykonane zgodnie z przepisami
PNE 17/1937 VDE 0170/1933
oraz według wymogów
Kopalni doświadczalnej BARBARA



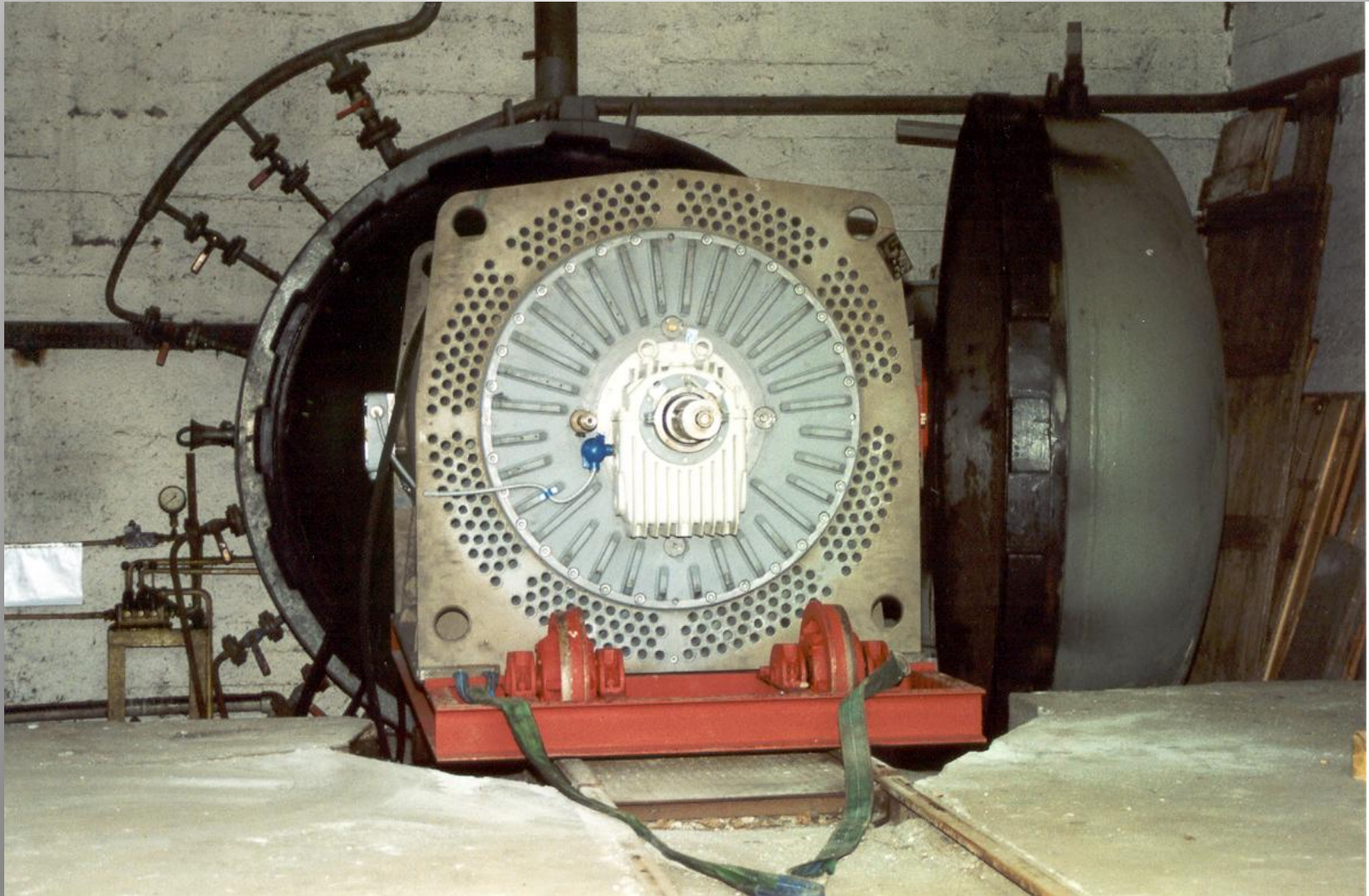
Dwa silniki 3 łozyskowe przeciwybuchowe,
z pierścieniami w ognioszczelnej osłonie
po 360 KM, wykonane w Żychlinie
dla jednej z fabryk chemicznych

ROHN-ZIELIŃSKI
B R O W N B O V E R I

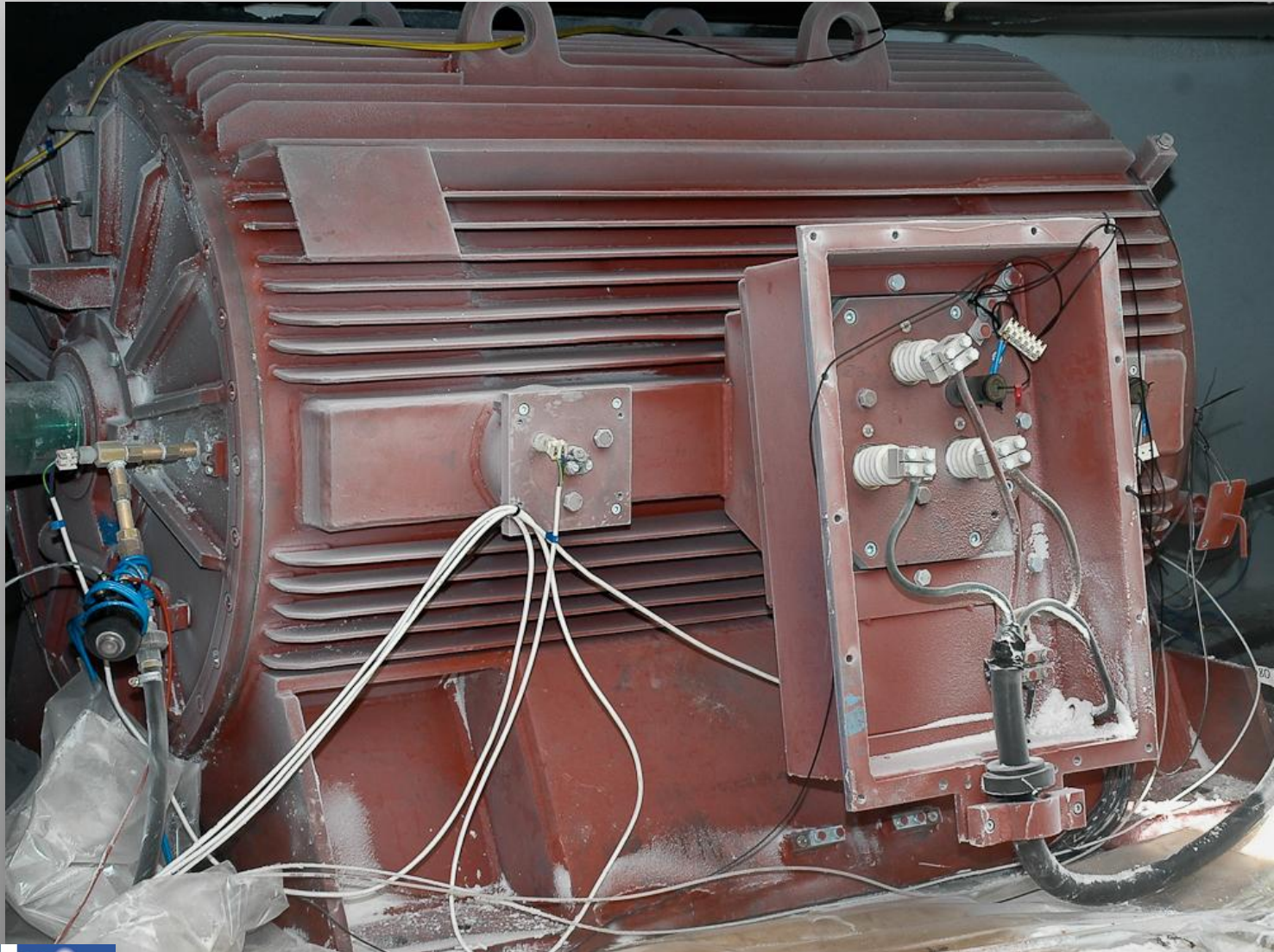
Testing in the years of '50:







Low temperature testing



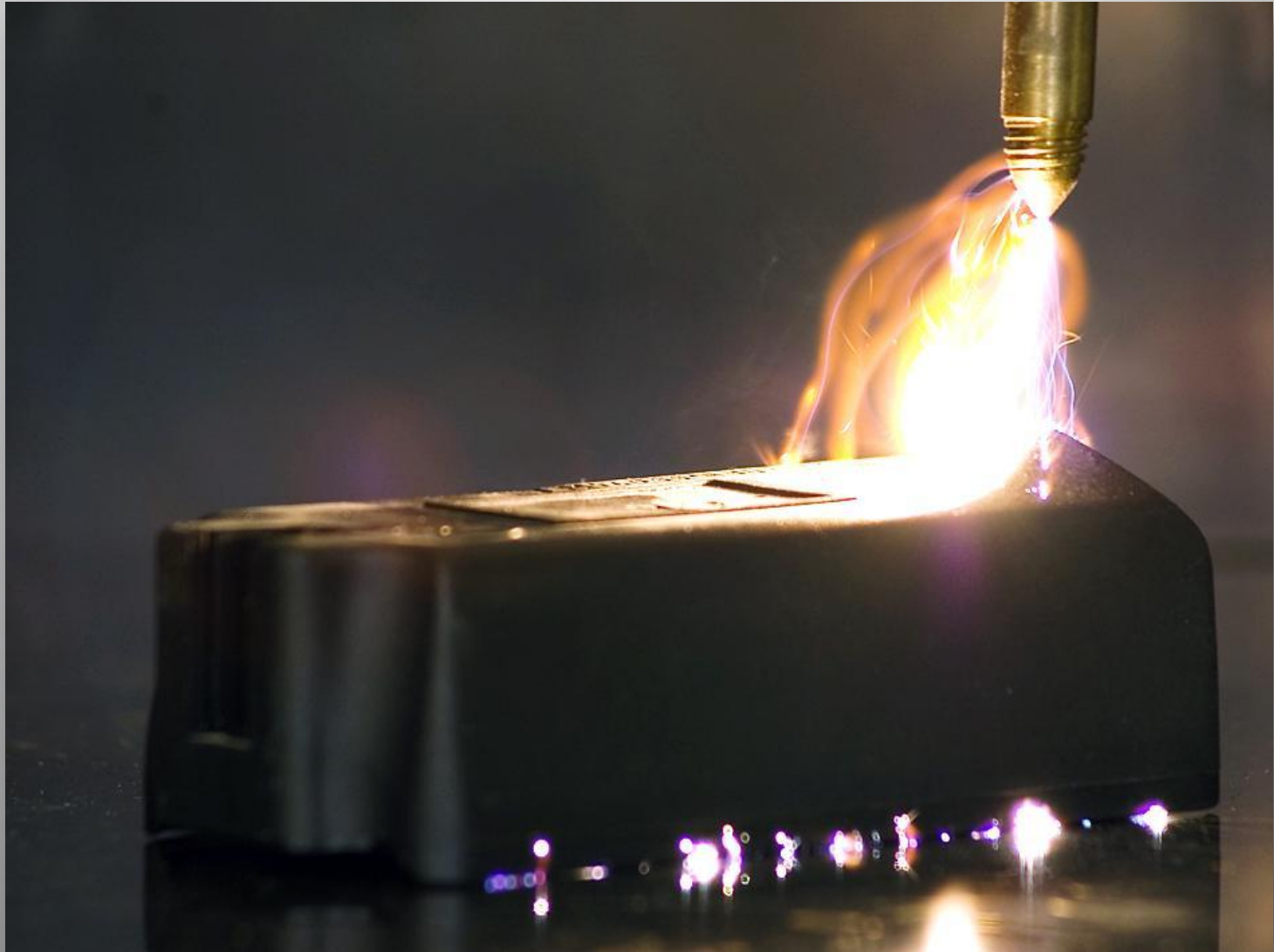
Low temperature testing



KDB^{Ex} Mechanical dimension checking



Electrostatic hazard





Mechanical Ex-safety:

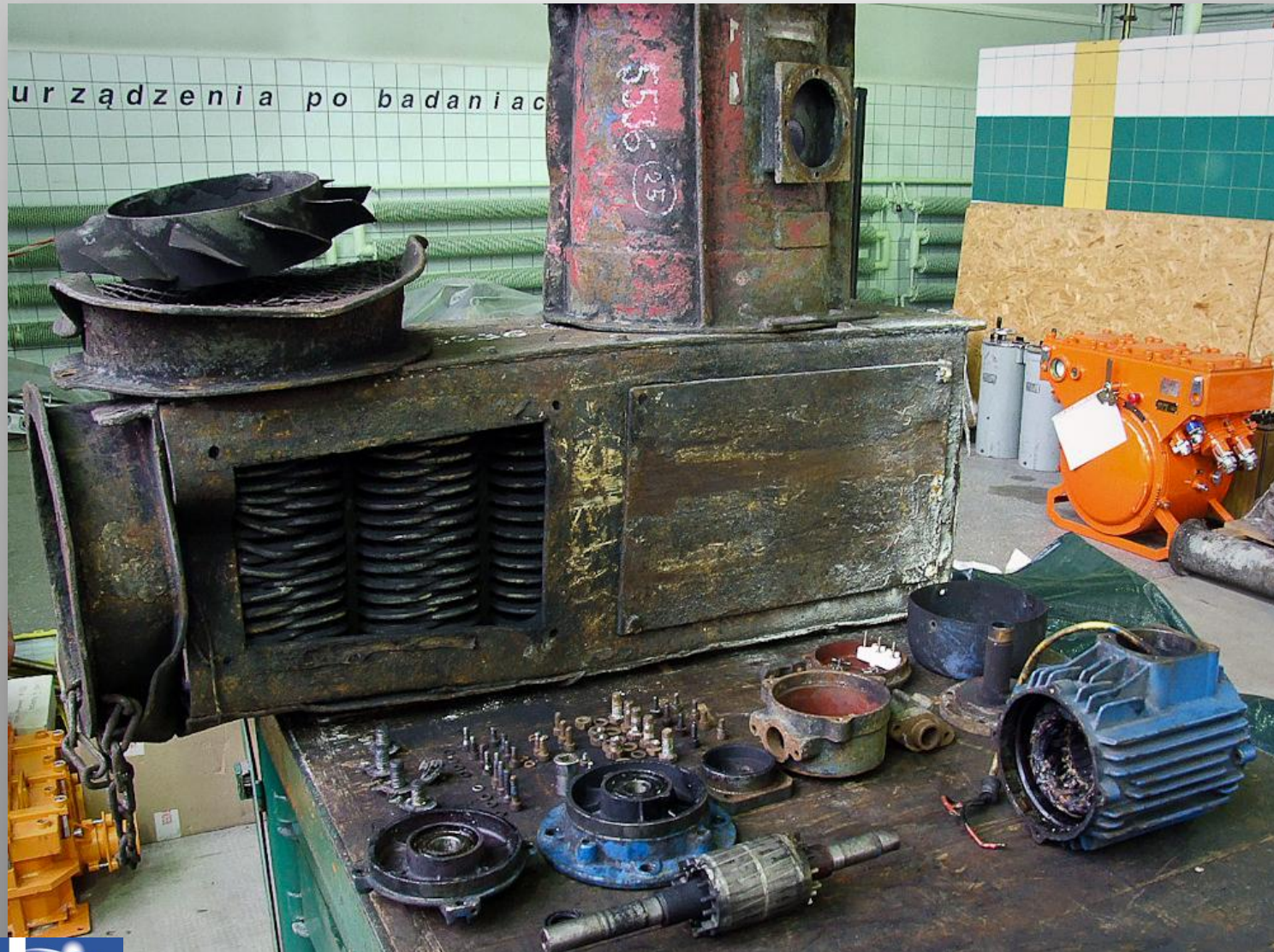


Mechanical Ex-safety:











Personnel



Communication and transfer of knowledge



EpsilonX

KDBEx[®]

Cooperation



Polish
Committee for
Standardization

Committees
mirror:

TC31
(IEC/CENELEC)

TC305 (CEN)

Ministry of
Economy

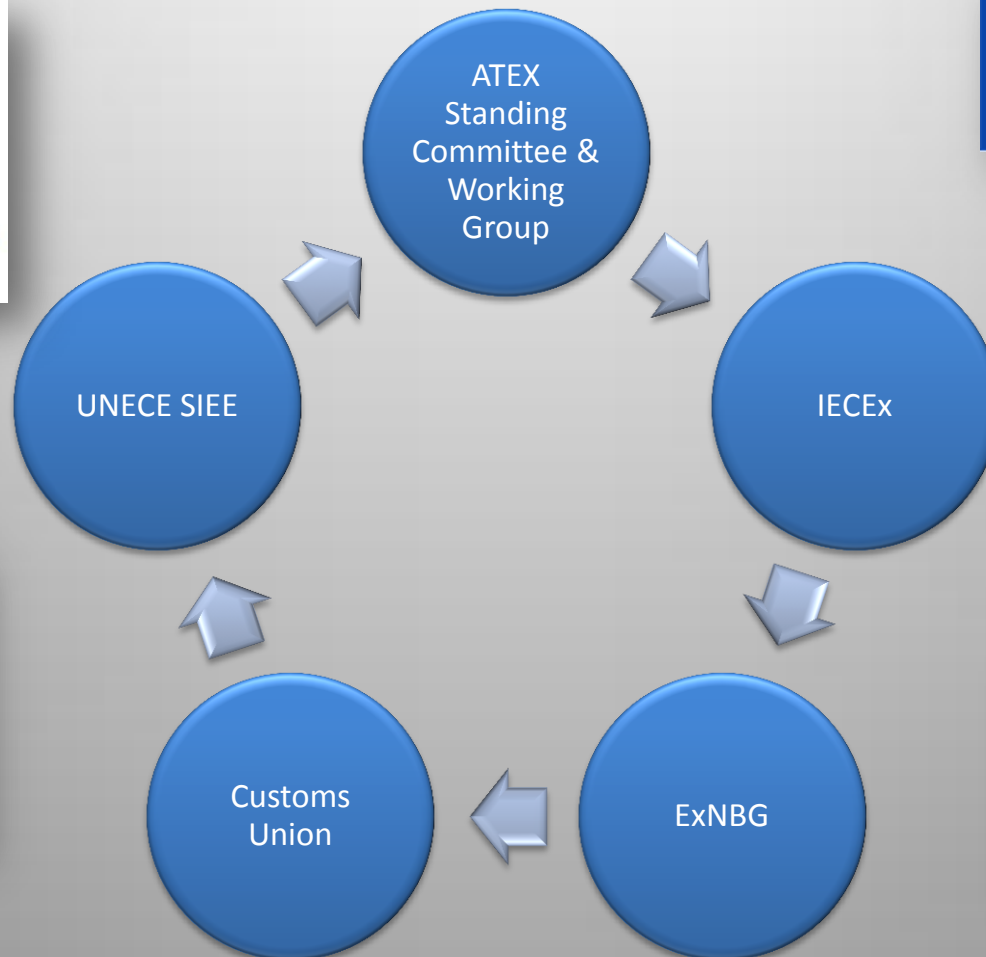
ATEX Standing
Committee

ATEX Working
Group

Office of
Technical
Inspection
(IECEX MB)

State Mining
Authority

International cooperation



International IECEx conference 22-23 April, Gdańsk POLAND

Customs Union



ЕВРАЗИЙСКОЕ ЭКОНОМИЧЕСКОЕ
СООБЩЕСТВО

Standards - marking

Ex d IIB T4

PN-83/E-08110

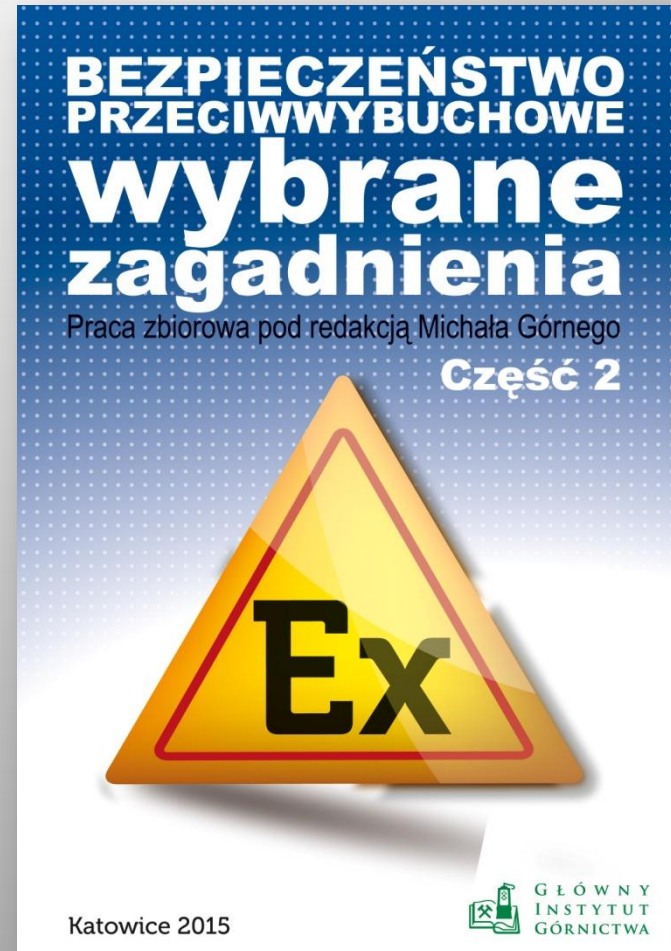
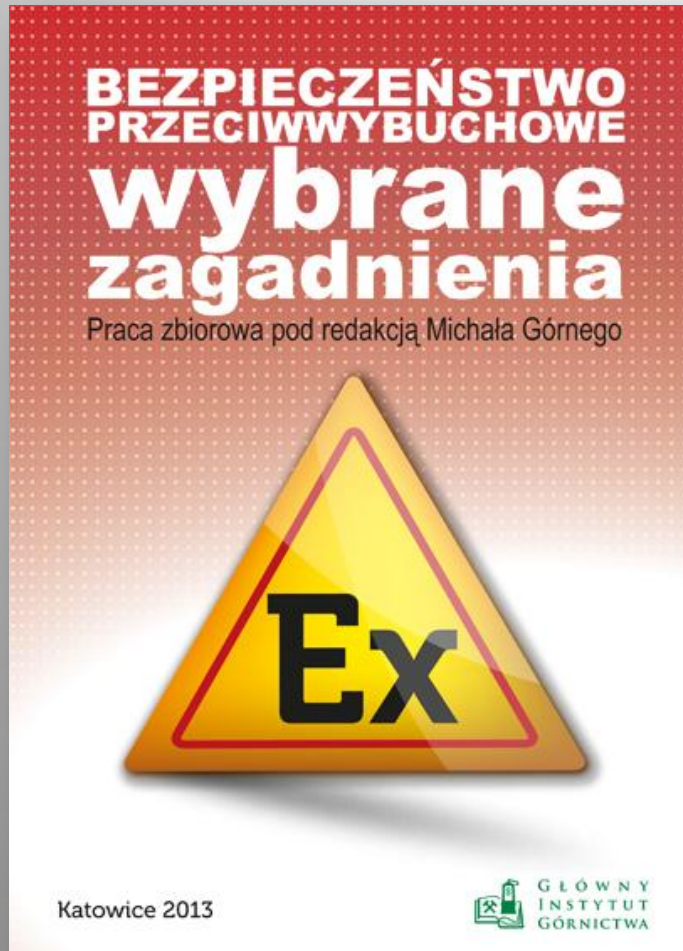
EEx d IIB T4

PN-EN 50014

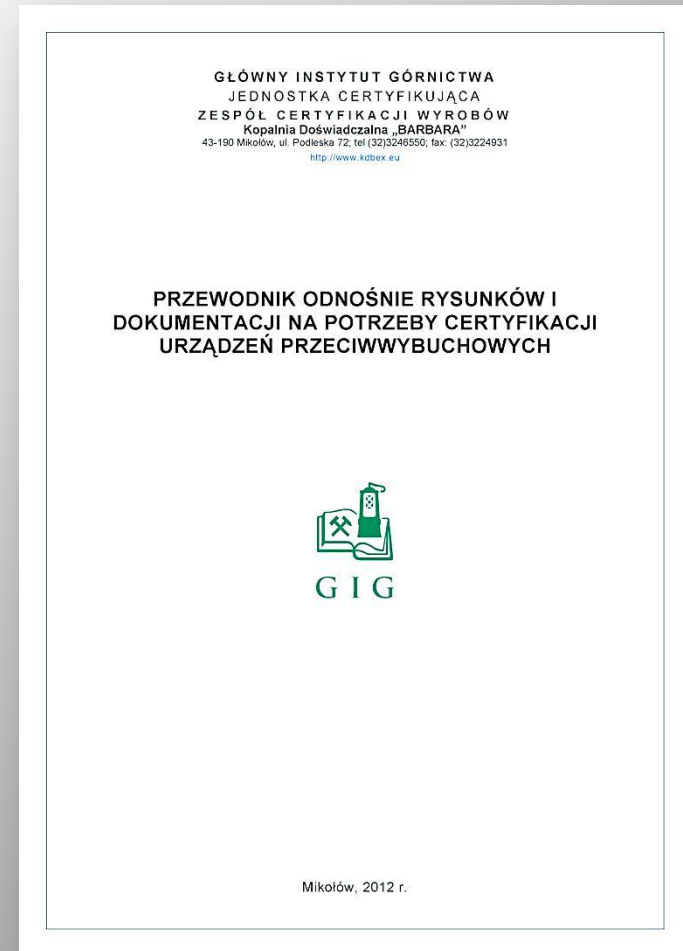
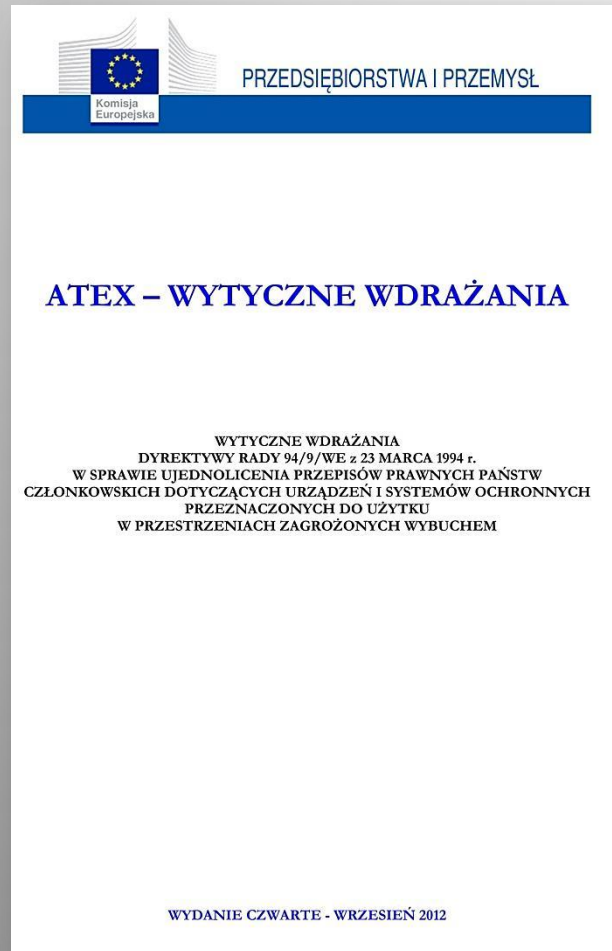
Ex d IIB T4

PN-EN 60079-0

Publications



Publications - guides



Industry - support



Industry - support





Thank You for attention

www.KDBEx.eu



International IECEx conference 22-23 April, Gdańsk POLAND