

Nuclear technologies and society

- a view from Poland

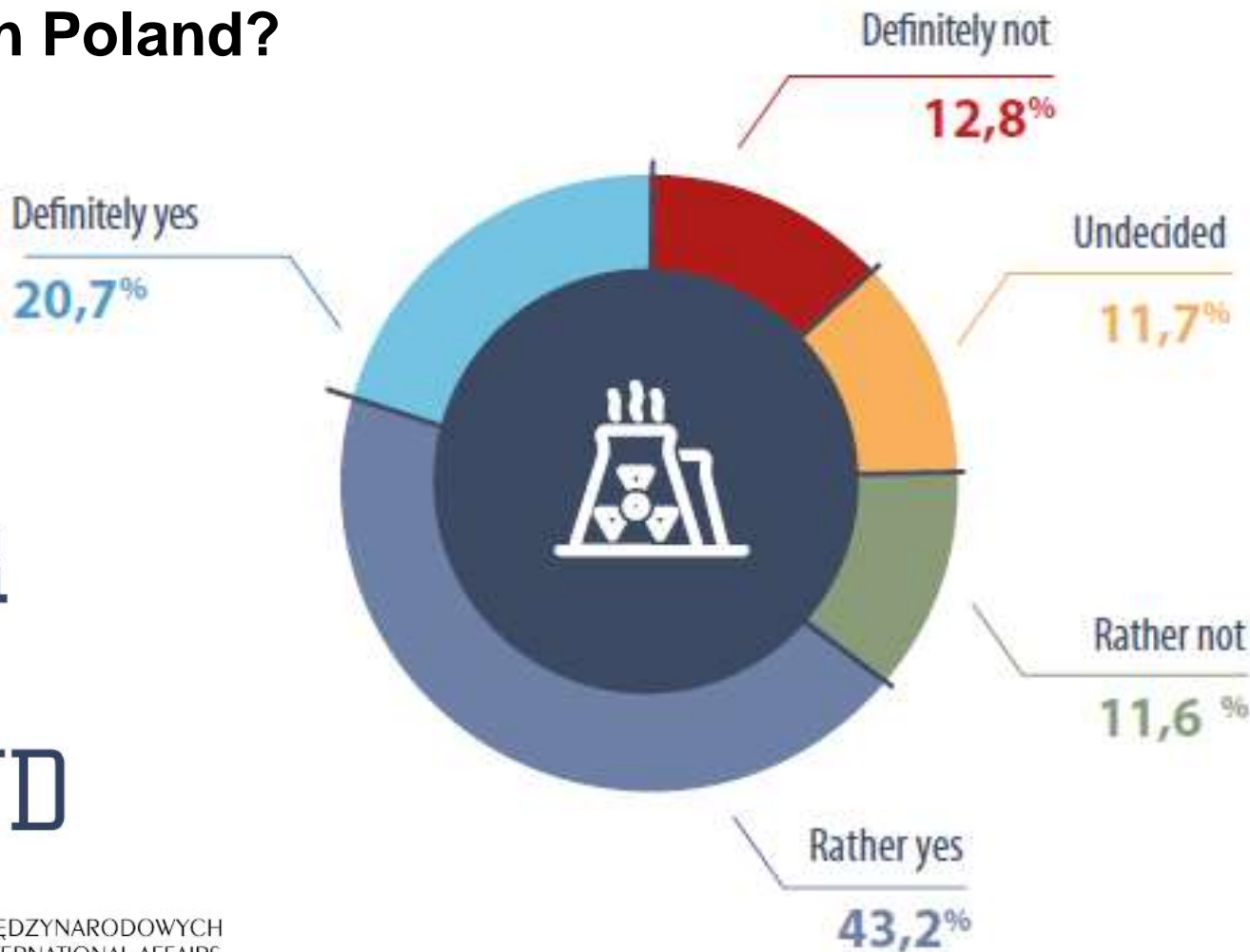


Grzegorz Wrochna
National Centre for Nuclear Research
www.ncbj.gov.pl



Public opinion on nuclear plants

Do you support nuclear plant construction in Poland?



Data from:

REPORT

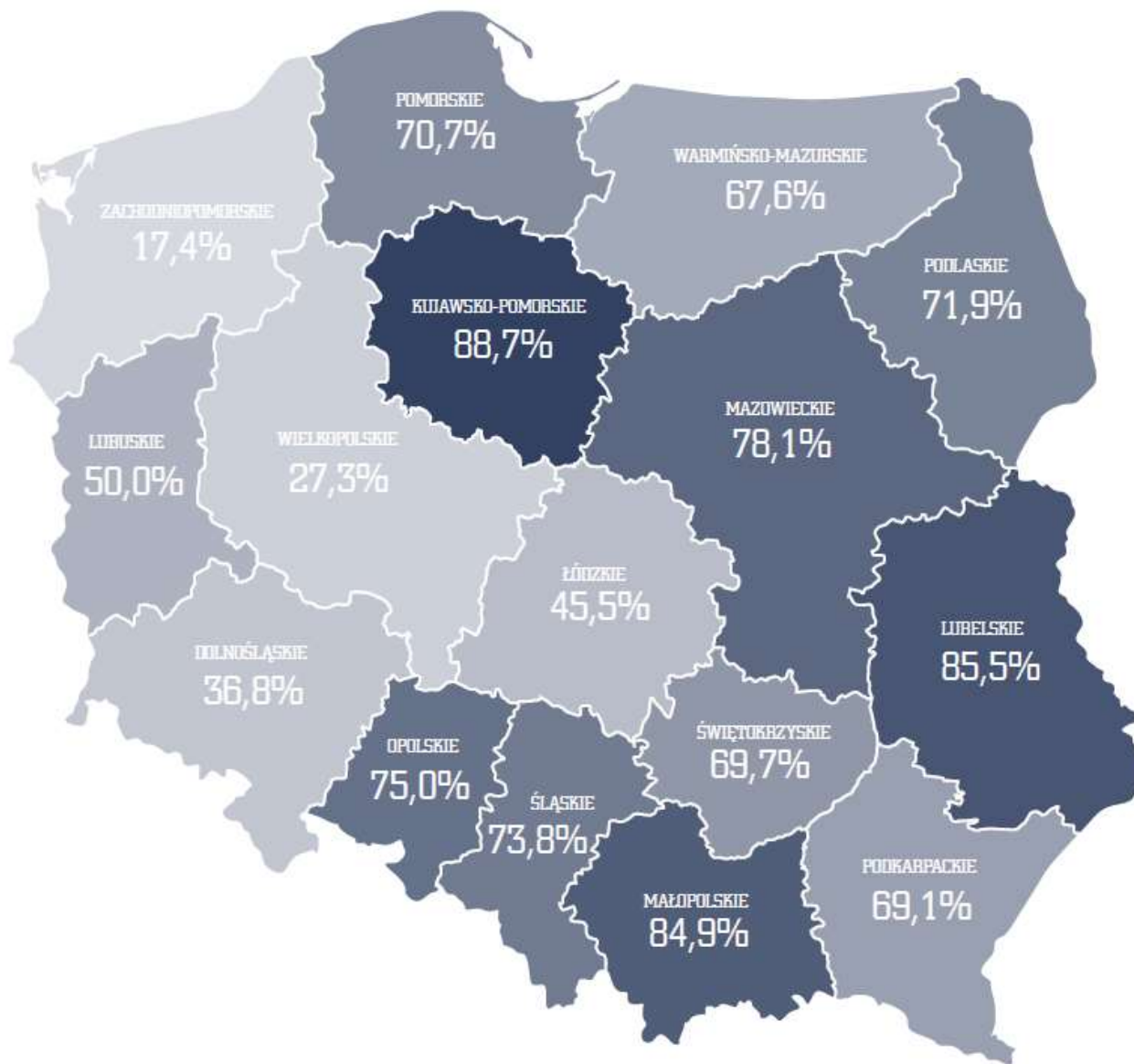
NUCLEAR ENERGY IN POLAND

PISM | POLSKI INSTYTUT SPRAW MIĘDZYNARODOWYCH
THE POLISH INSTITUTE OF INTERNATIONAL AFFAIRS



Support for nuclear plant construction

Influence of „greens“



Concern for independence
so far 100% based on coal



Just In My Backyard

- **We observe JIMB rather than NIMB (Not In My Backyard) effect**
- **60-70% would accept nuclear plant <100km from home**
- **~60% acceptance around selected sites**
- **People consider nuclear plant as a chance for prosperity of their region**
- **Safety is not a big issue:
fear of unemployment grater than fear of radiation**



Conclusions

- **Positions are only partially based on rational arguments and often have emotional character.**
- **There is a need for systematic public education.**
- **The word "nuclear" has very negative connotations. One needs to draw public attention to many achievements of nuclear technologies which are today widely used in medicine, industry, security, transportation, etc.**

**EVERYONE profits
from nuclear technologies in everyday life**

Radiation from reactors

- **1/3 of world's electricity**
- **Heat for houses, industry, desalination ...**
- **Radioisotope diagnostics: PECT, SPECT, scintigraphy ...**
- **Radioisotope therapy: brachytherapy, radioembolisation, BNCT, ...**
- **Material research: cavitation in Diesel fuel, giant magnetoresistance for HDD, ...**
- **Neutronography: archeology, art. history, technical applications, ...**

**Reactor MARIA produces ^{99}Mo
for 2 mln patients each year**

**NCBJ Polatom exports
radioisotopes to 80 countries**



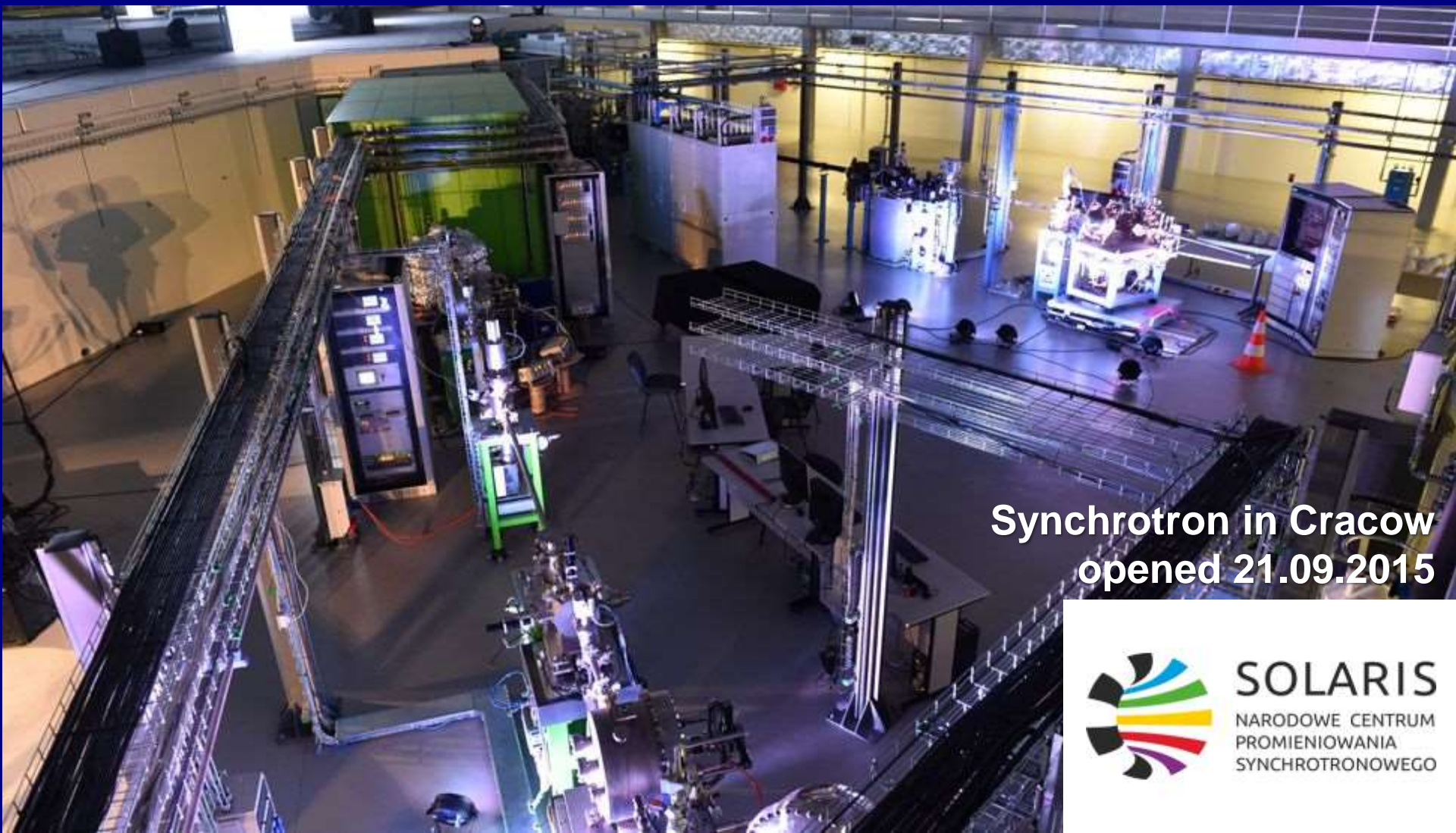
Radiation from accelerators

- Radiotherapy
- γ -ray radiography
- Homeland security
- Sterylisation of food and medical equipment/tissues
- Polymer cross-link



Radiation from synchrotrones

- Advances in molecular biology and medicine
- New materials ...



**Synchrotron in Cracow
opened 21.09.2015**



SOLARIS
NARODOWE CENTRUM
PROMIENIOWANIA
SYNCHROTRONOWEGO

„Byproducts” of nuclear research

WWW has been invented at CERN

– European Centre for NUCLEAR Research

to facilitate world wide collaboration on LHC experiments



The dream became true

The dream of Maria Skłodowska-Curie was to use radiation for the good of people, especially for health care



MARIA reactor

**Nuclear reactors
and accelerators
have made it true**

