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Reflections on the Polish Education and Research System

- 1. Before any changes of the system should be conducted a good diagnosis, eg. SWOT analysis.
- 2. Evolution and not revolution. Fashion for pseudo-innovations everywhere.
- 3. System changes should be accompanied by an increase of financing.
- 4. The main product of universities are graduates. They are very successful.
- 5. A lot of low indicators of Polish education and research output could be increased by:
 - a) quantitative changes (more funds) without revolutionary qualitative changes of the system,
 - b) simplification of existing procedures (The Public Procurment Law, less project reporting, eg. only mid-term report).
- 6. There is a broad gap in Polish system of financing research. NCBR supports only application research in collaboration with industry. NCN offers grants only for basic research. Scientists (especially at universities of technology) need also funds for **research with long term application perspectives**.
- Polish universities need the 3rd stream of system financing for Technology Transfer related to the 3rd mission of universities. Statutory money for CTTs.
- 8. Rectors need statutory money addressed to universities for interfaculty research. In the past it was FPB-Fundusz Prac Własnych spent for rector's grants.
- Polish treasure are young, educated and creative young people. Many of them emigrate because our System cannot absorb them. Poland has very low indicator of researchers per population (in 2010 PL=0.74%, EU27=2.03%). PL budget in 2016 was:
 - a. HE = 0.84% GNP (OECD 1.5%)
- b. Research = 0.3% GNP + 0.45 % other sources = 0.75% GNP (EU27=2.03%) 10. The policy makers should keep in mind:
 - a. social importance of universities spread in the country for the local communities
 - b. educational role of research (even without commercialization)
- 11. The ratio of grant/statutory financing should be strongly correlated with the total budget spent for research. They should grow together.