I am CELISE

Sustainable production of Cellulose-based products and additives to be used in SMEs and rural areas
Funded from the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement **No 101007733**.

CELISE 2022 meeting
Quick Roundtable: WUT Warsaw University of Technology

Maria Kochaniec, e-mail: maria.kochaniec@pw.edu.pl ,
Warsaw University of Technology

7th December, 2022

I am CELISE

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- Warsaw University of Technology (WUT)
- Main expertise and capacities
- Interests in CELISE
- Key staff participating in CELISE

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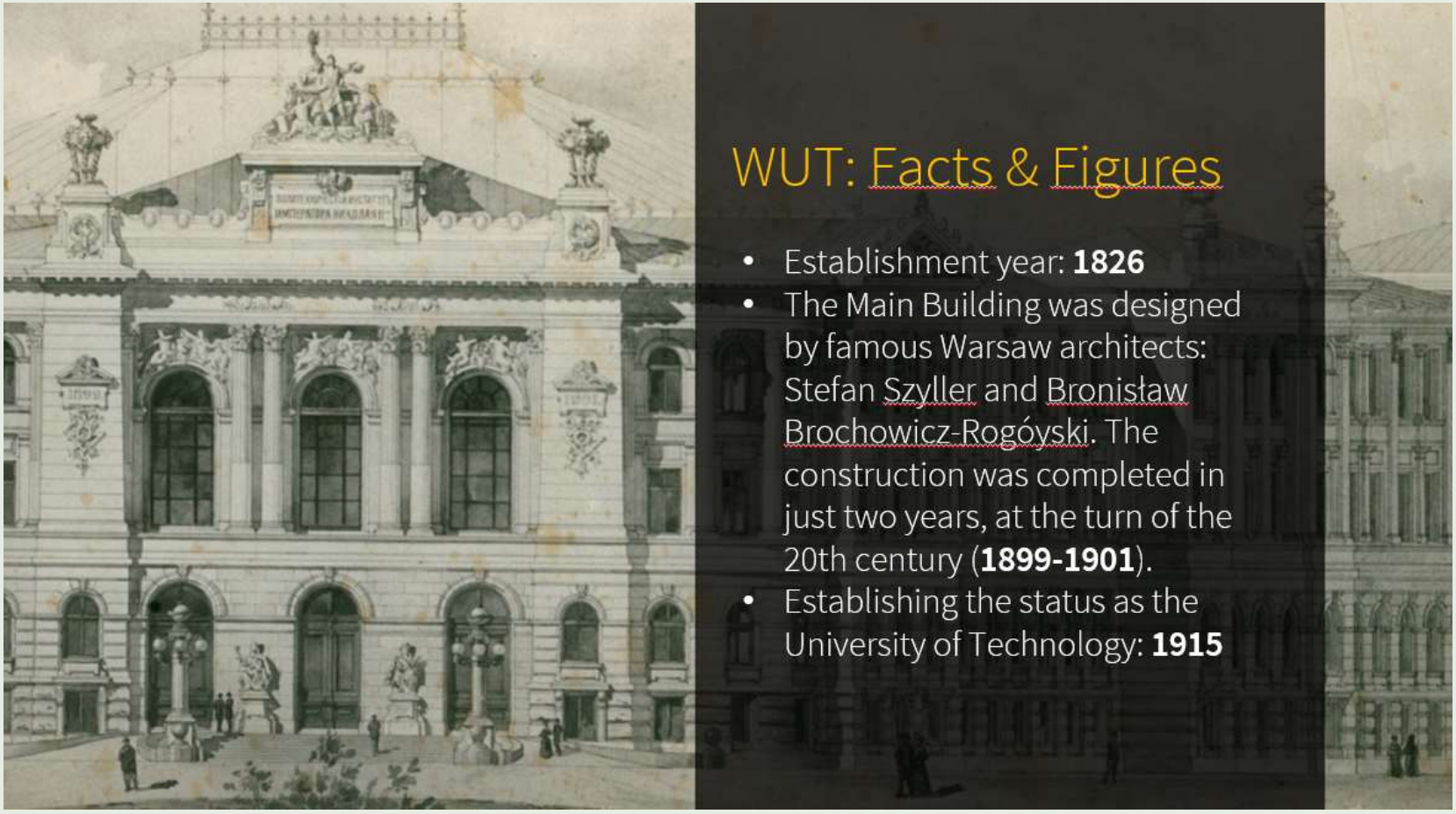
General Description



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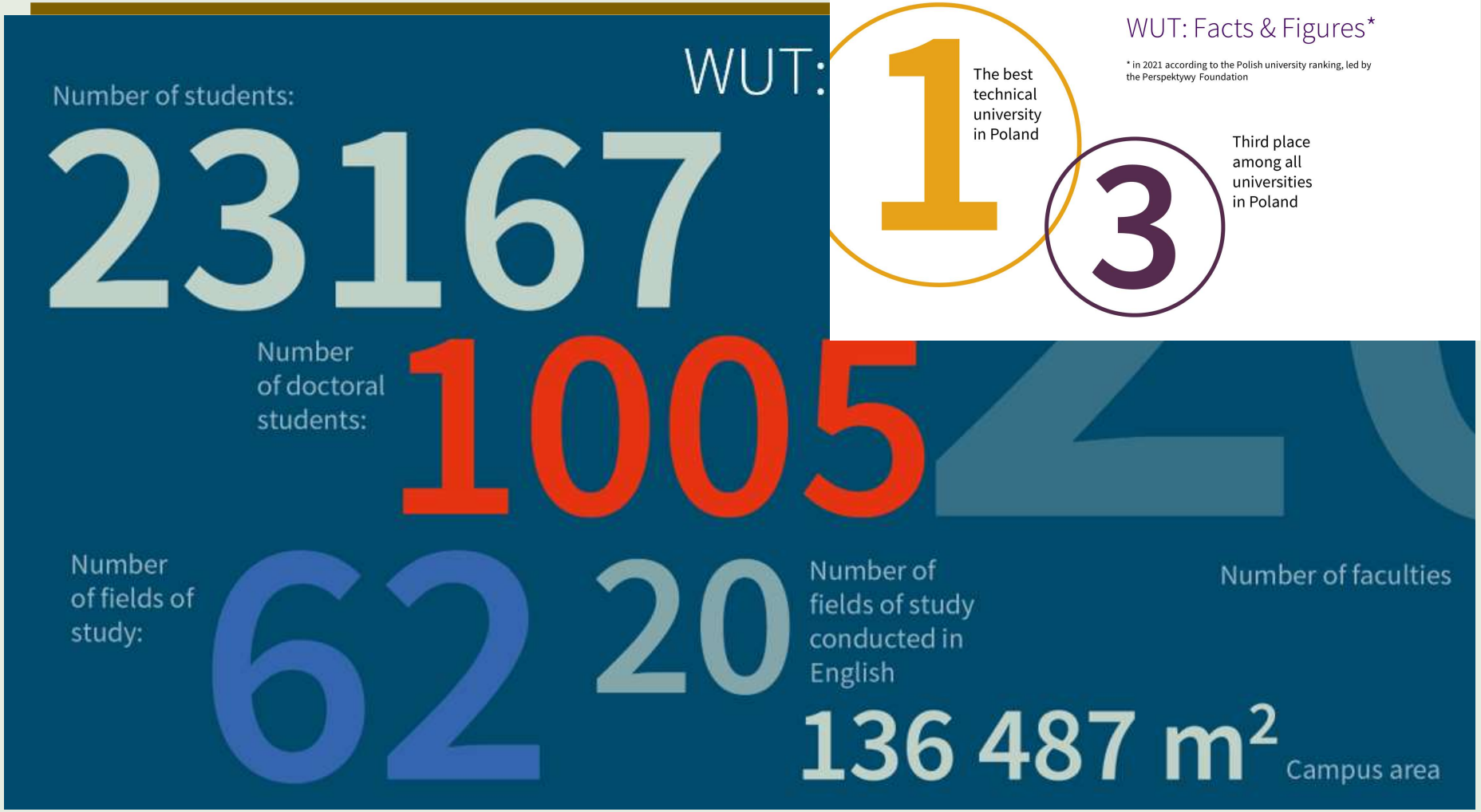

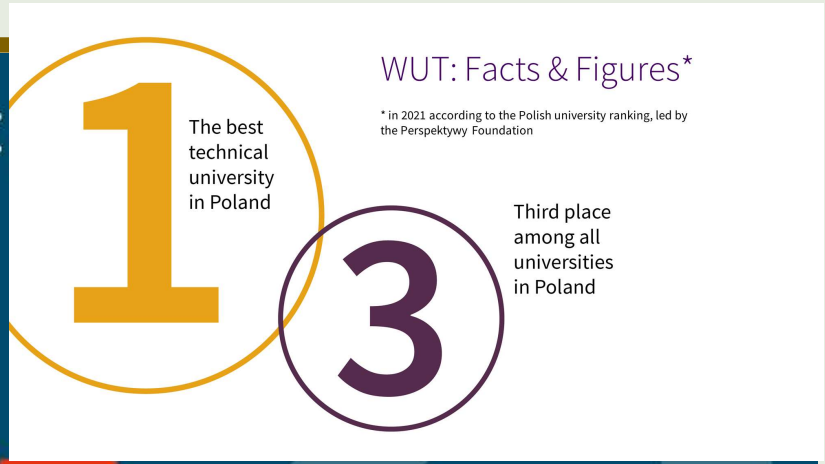

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General Description

Disciplines of science:

- architecture and urban planning,
- automation, electronic and electrical engineering, and space technologies,
- philosophy,
- information and communication technology,
- biomedical engineering,
- chemical engineering,
- civil engineering, geodesy and transport,
- materials engineering,
- mechanical engineering,
- environmental engineering, mining and energy,
- mathematics,
- chemical sciences,
- physical sciences,
- management and quality studies,
- law.

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Main expertise and capacities

- Biomass characterisation;
- Biochar from hydrothermal processes;
- Design of functional materials for sorbents and energy storage;
- Collaboration with several industrial companies.

- Visitors will have access to the host group facilities from Chemical Laboratory and to the other research infrastructure located at WUT.
- Biomass treatment and modifications will be performed using technological line for conducting hydrothermal reactions including carbonization and lab-scale reactors for lignocellulosic HTC treatment.

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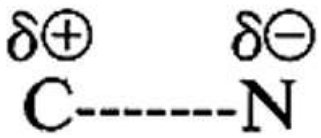
Interests in CELISE

Biowaste-based precursors

180-250 °C

carbonization under an inert atmosphere



Nitrogen dopants lead to the **interactions** between the nitrogen and the carbon species - **due to the electronegativity differences the electron density decreases in carbon atoms**

BIOFUELS

BIOCHEMICALS

ENERGY CONVERSION and STORAGE

SORBENTS

CATALYSTS

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Key staff participating in CELISE

- **Dr. Maria Kochaniec**

(Adjunct Professor, 14 papers, 441 citations, h-index 9).

Research activities focus on synthesis of new sustainable materials using wastes, their characterization and application for environmental and chemical engineering