



Politechnika Wrocławska

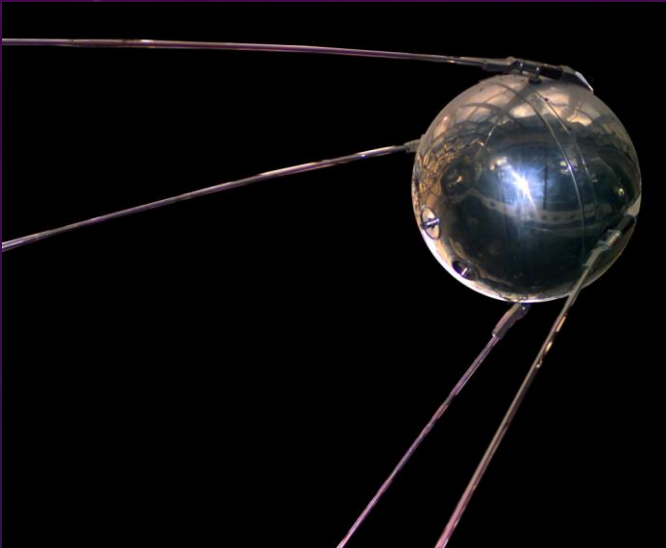


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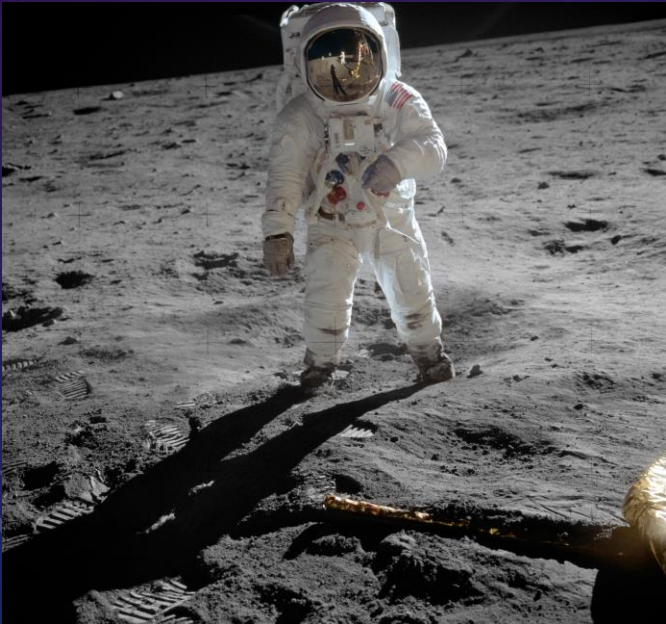
KN PWR IN SPACE

PWR  **INSPACE**

Second Space Race



50 years later...



Private Capital Heralds the Second Space Race

SpaceX, Blue Origin driving innovation in launch technology

SPACE

“Space, the final frontier” began the memorable title sequence from the “Star Trek” television series. After decades of stagnation and decreasing government funding following the Cold War, the U.S. space industry has found new life in recent years due to massive private financing and an increased interest from the young administration.

At the forefront of space launch is SpaceX, the Hawthorne, California-based private aerospace engineering and space transportation company founded by Elon Musk, a modern-day Howard Hughes figure, who also heads the electric-vehicle manufacturer Tesla Inc.

In Feb. 6, SpaceX successfully launched its Falcon Heavy booster rocket, the world’s most powerful rocket, using the same spacelift as NASA’s Apollo missions. The Falcon Heavy demonstrated that it could carry more payload at less expense than its competitors. With the ability to deliver its payloads to orbit, the Falcon Heavy could carry almost three times the payload of its closest competitor, the Delta IV Heavy built by the United Launch Alliance, according to SpaceX’s data. To top it off, the three first-stage boosters of the Falcon Heavy are designed to be reusable and reusable.

The real game-changer is cost. SpaceX estimates that the Falcon Heavy Heavy cost \$90 million per launch, which is a fraction of the \$300 million to \$400 million per launch charged by United Launch Alliance for the Delta IV Heavy.

The fact that SpaceX is bringing this technology to the market commercially is a game-changer. It is a private industry company, not a government agency, and it is not a monopoly.

Under development following the launch of Falcon Heavy is the Falcon Heavy Heavy, which is expected to be launched in 2017. The Falcon Heavy Heavy is a three-stage rocket, with the first stage being the Falcon Heavy Heavy, the second stage being the Falcon Heavy Heavy, and the third stage being the Falcon Heavy Heavy.

SpaceX is not the only company in the space launch industry. Other companies, such as Blue Origin, are also working on developing reusable rockets. Blue Origin’s New Glenn rocket is expected to be launched in 2020.

The space market is estimated to grow from \$10 billion in 2015 to \$100 billion in 2025, according to a report by the Space Foundation. This growth is driven by the increasing number of commercial satellites and the growing interest in space exploration.

The space industry is also seeing a surge in private investment. In 2015, private investment in the space industry was \$1.5 billion, up from \$1 billion in 2014. This investment is expected to continue to grow in the years ahead.

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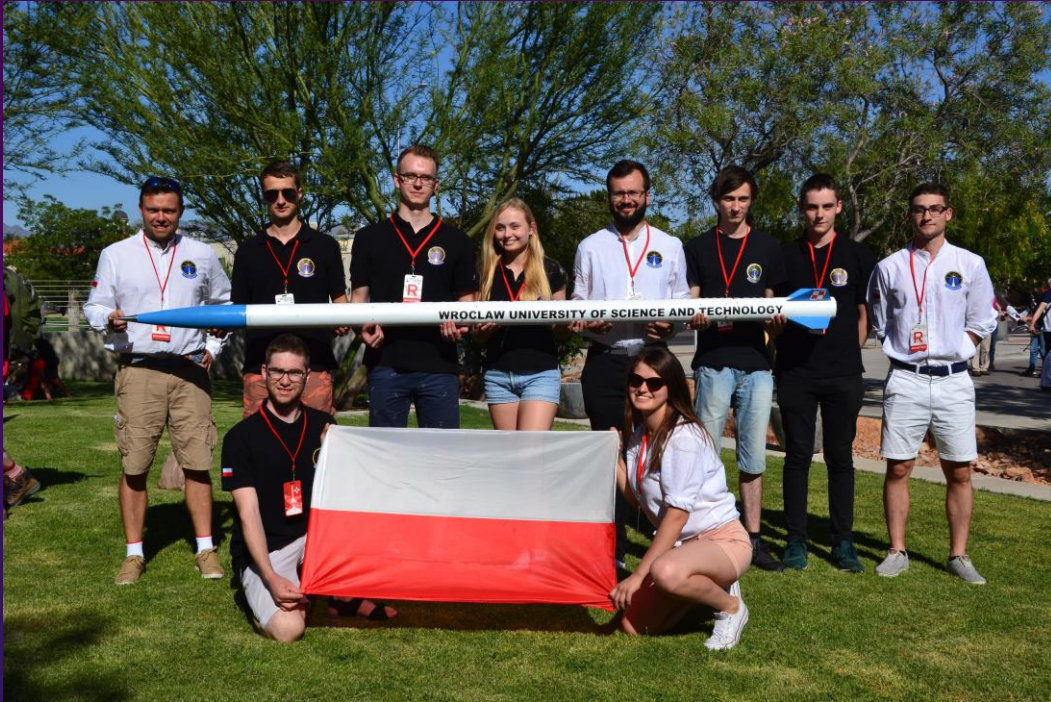
The space industry is also seeing a surge in international investment. In 2015, international investment in the space industry was \$1.5 billion, up from \$1 billion in 2014. This investment is expected to continue to grow in the years ahead.





PoliWrocket project < 2% of single
Falcon 9 Grid Fin

PoliWRocket Team



A few facts:

25 members (21 male, 4 female)

2 years of activity

3 accomplished rocket projects

5th place at Space Port America Cup 2019



Our aims:

Train people to work in space industry

- internship in SatRevolution company

- internship in Institute of Aviation Warsaw

Contribution to development of space technology

Research and Development:

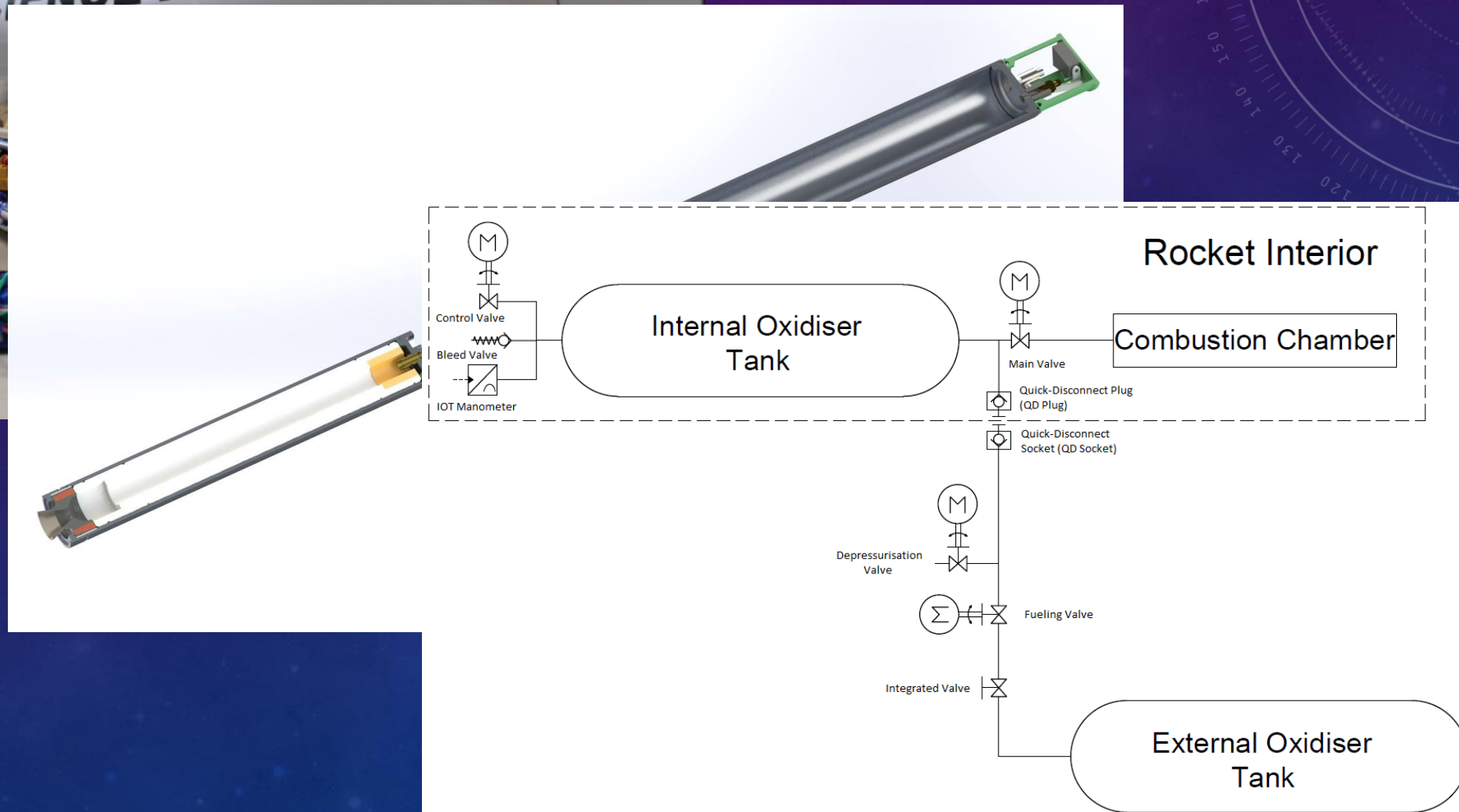
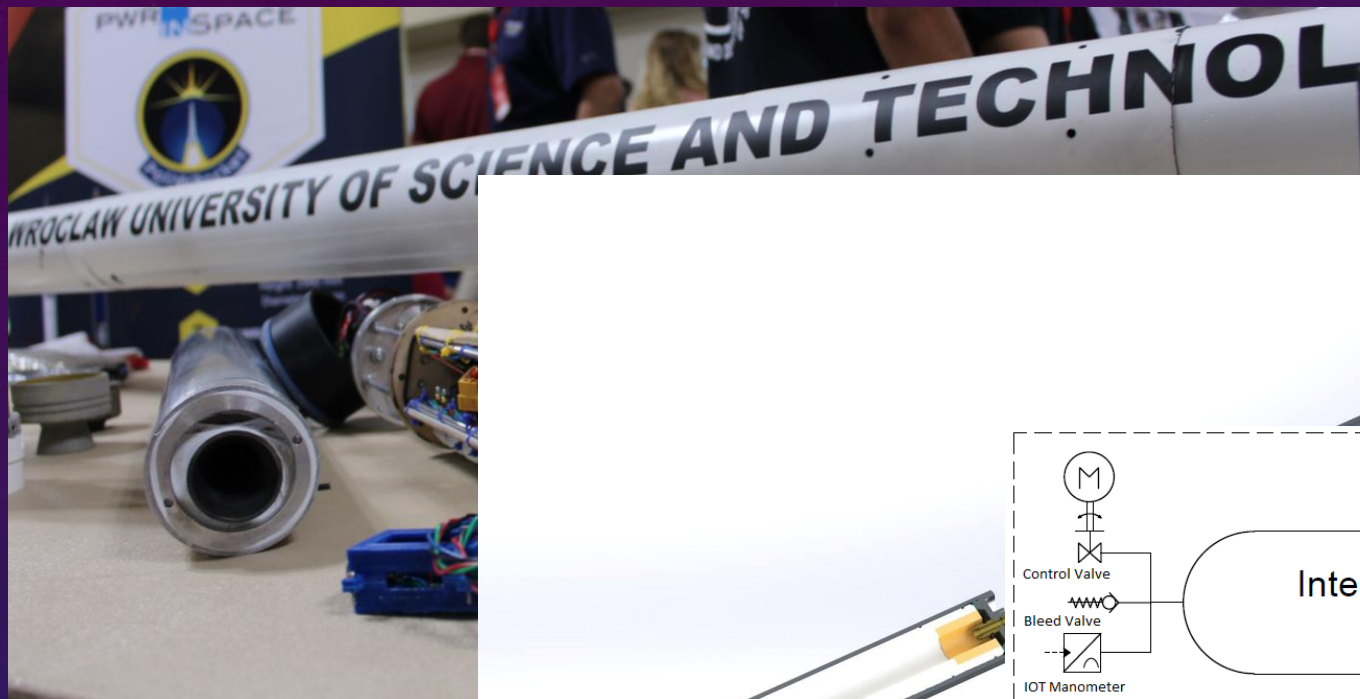
- New fuel types in hybrid rocket motor development

- High atmosphere research

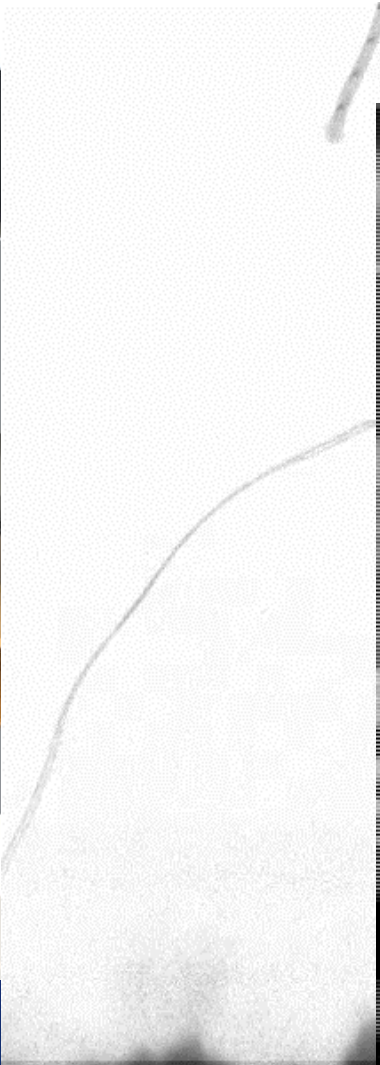
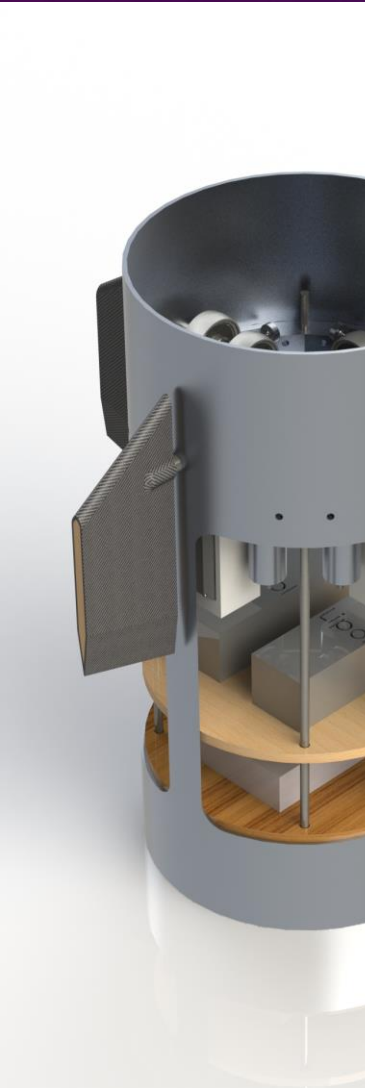
- New materials and structures in rocket technology



Our technology



Our technology



How it looks like?



Thank you for your attention !

