



# University of Wales Trinity Saint Davis

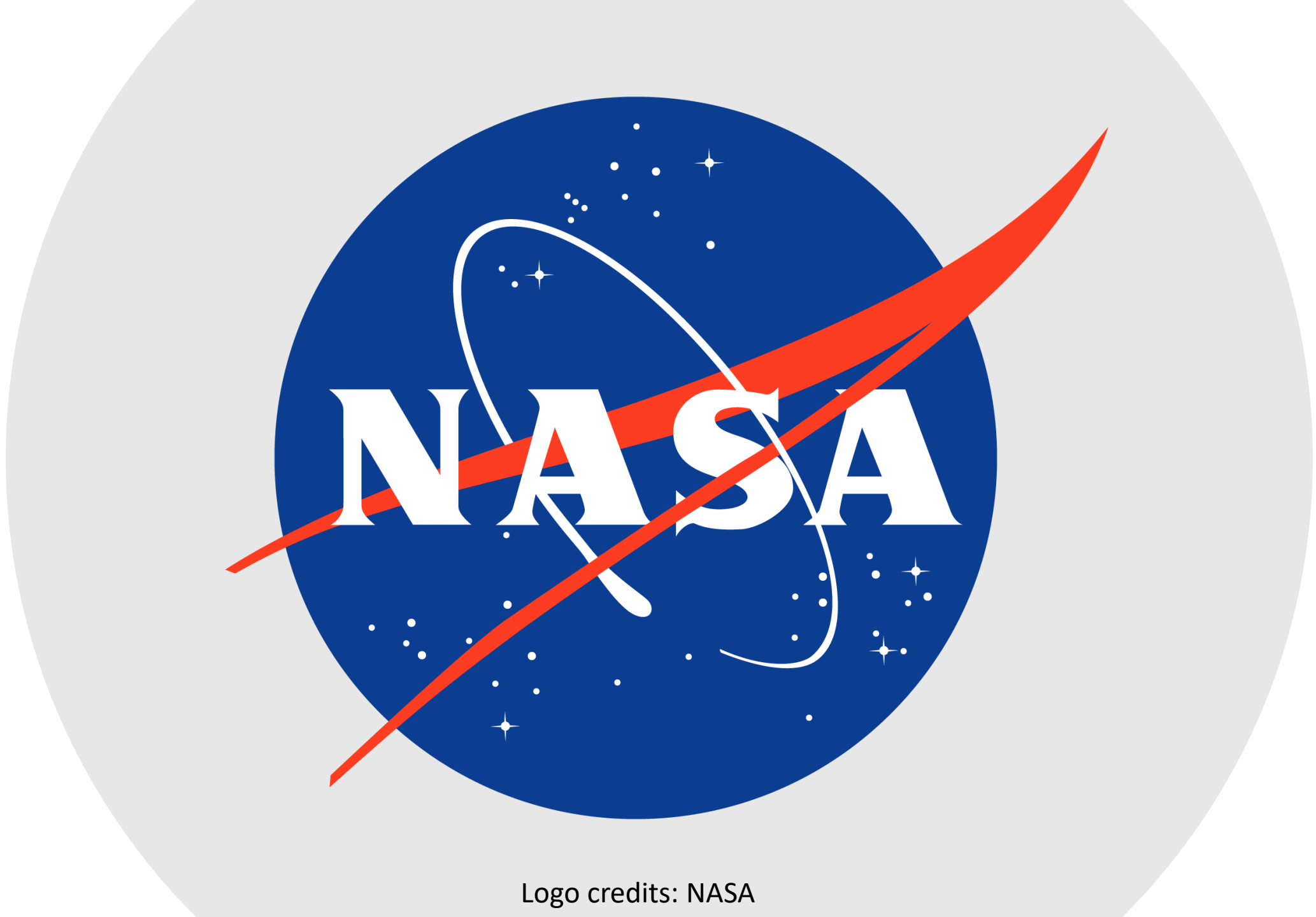
## Digital Skills and research methods (BMSW4003)

### Group 3 Presentation

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Logo credits: NASA



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# Overview and background

- Cleopatra Chirilesciu
- Gleidy Jimenez



# History

- NASA, stands for National Aeronautics and Space Administration.
- The agency, was founded on 1st of October 1958.
- Space programs



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# Leadership

- NASA is under the management of United State Federal Government.
- The Administrator is named by the President of United State.
- Usually, a new Administrator is nominated when the President changes parties



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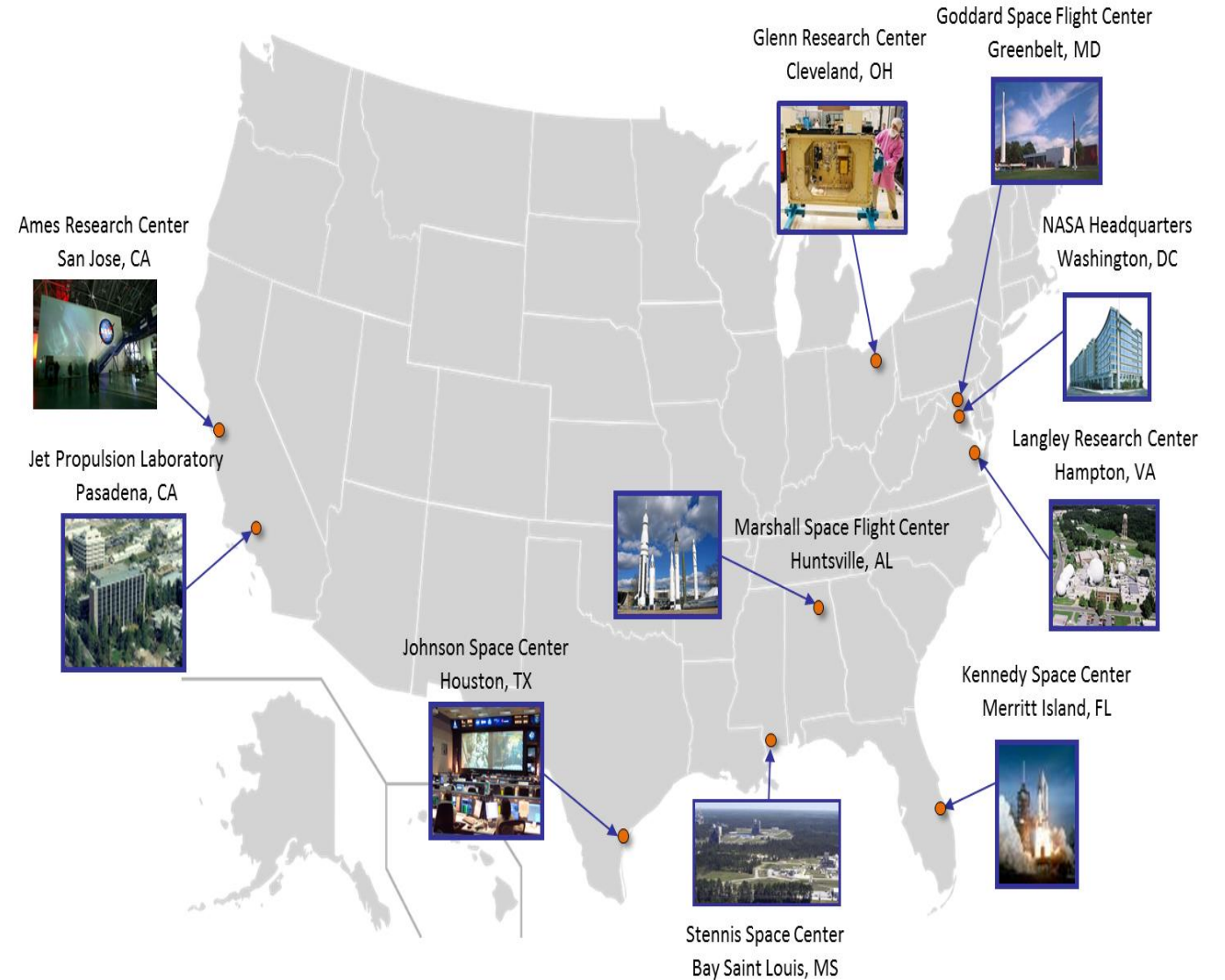
- The first Administrator of the agency was Thomas Keith Glennan.  
(19 Aug. 1958- 20 Jan.1961)
- The second successor was James Edwin Webb.  
(14 FEB. 1961- 7 Oct 1988)
- The Republican President Donald Trump nominated Frederick Bridenstine.  
( 1 Sep. 2017- Present )



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# Facilities

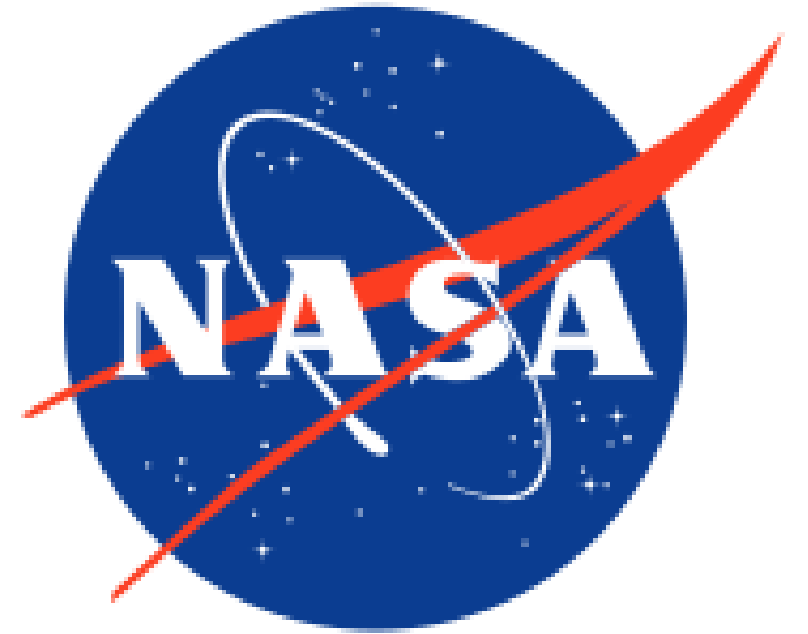
- There are NASA facilities across the United States and around the world.
- There are 10 NASA field centres, which provide leadership for work. All other facilities fall under the leadership of at least one of these centres.



# Goals

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- They study The Earth and the system to understand global change.
- To explore and expand human knowledge through discoveries.
- Extend human presence deeper into space.
- Address national challenges.



# Challenges before the introduction of modern technology

- Bryan Espinoza



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- It was created in the 20<sup>th</sup> century when technology started to grow and be more important.
- What they had in that period was single tasks machines.
- Work has to be done following the traditional way.



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- On the other side there were world problems as the Spanish flu pandemic, war conflicts and nuclear fears.
- Hidden war.
- Economic instability worldwide.
- Reduced budget, programs on hold.



# Insights to the modern technology introduced

- Hecyilian Puerta



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# Suits

- Exploration Extravehicular Mobility.
- High-Tech.
- Modular and Evolvable.
- Quick-swap visor



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# Satellite

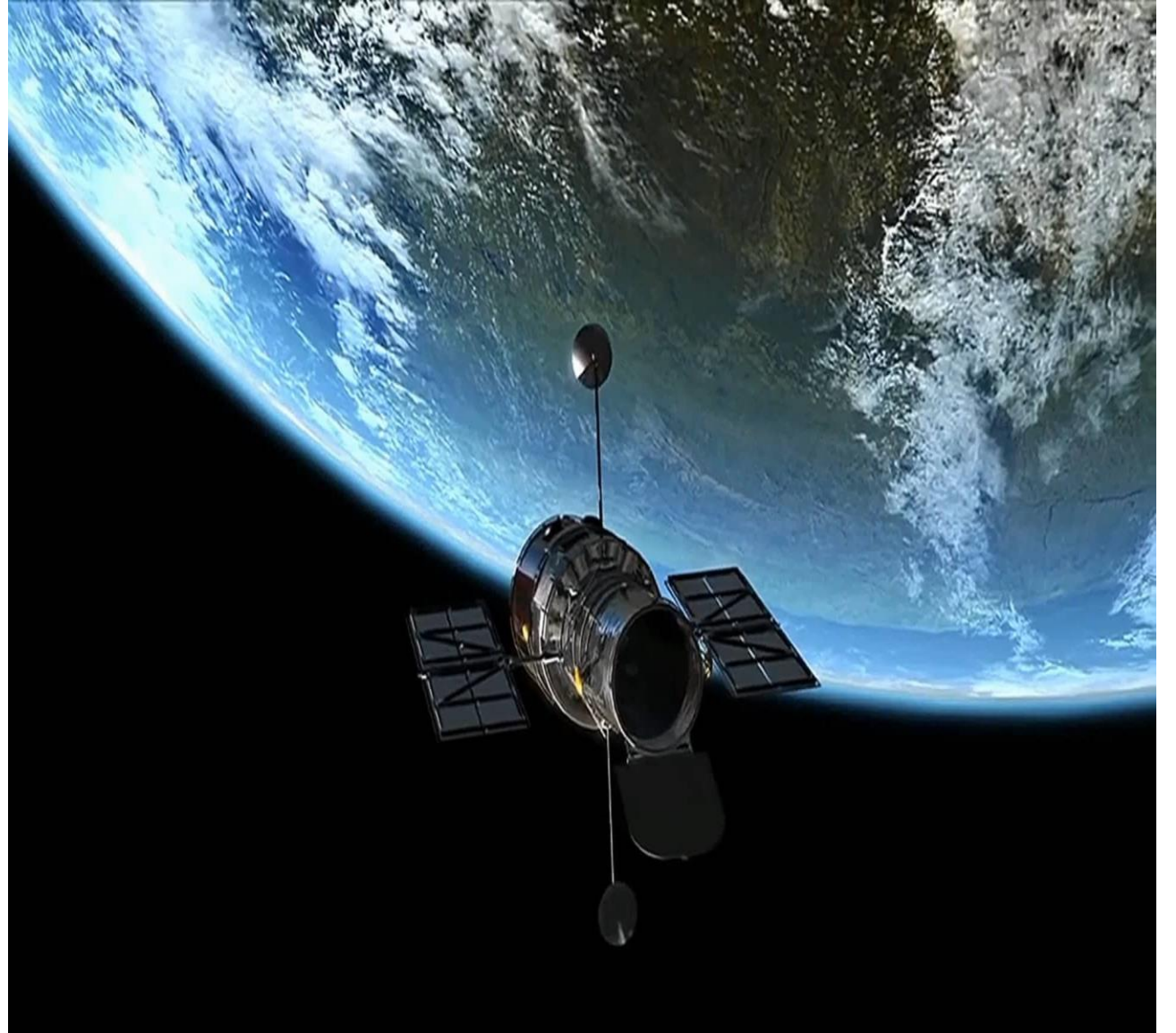
- Transmit data at rates 10 to 100 times better than radio systems.
- Lasers travel in a higher-frequency bandwidth.



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# The impact of the technology introduced

- Tatiana Mora Montoya



# Spacesuits

- Portable computers: Reduce mass and increase power.
- Firefighting equipment: Flame-retardant and heat-resistant suits.
- Scratch-resistant lenses: Same material of the helmets' visors.



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# Laser communications

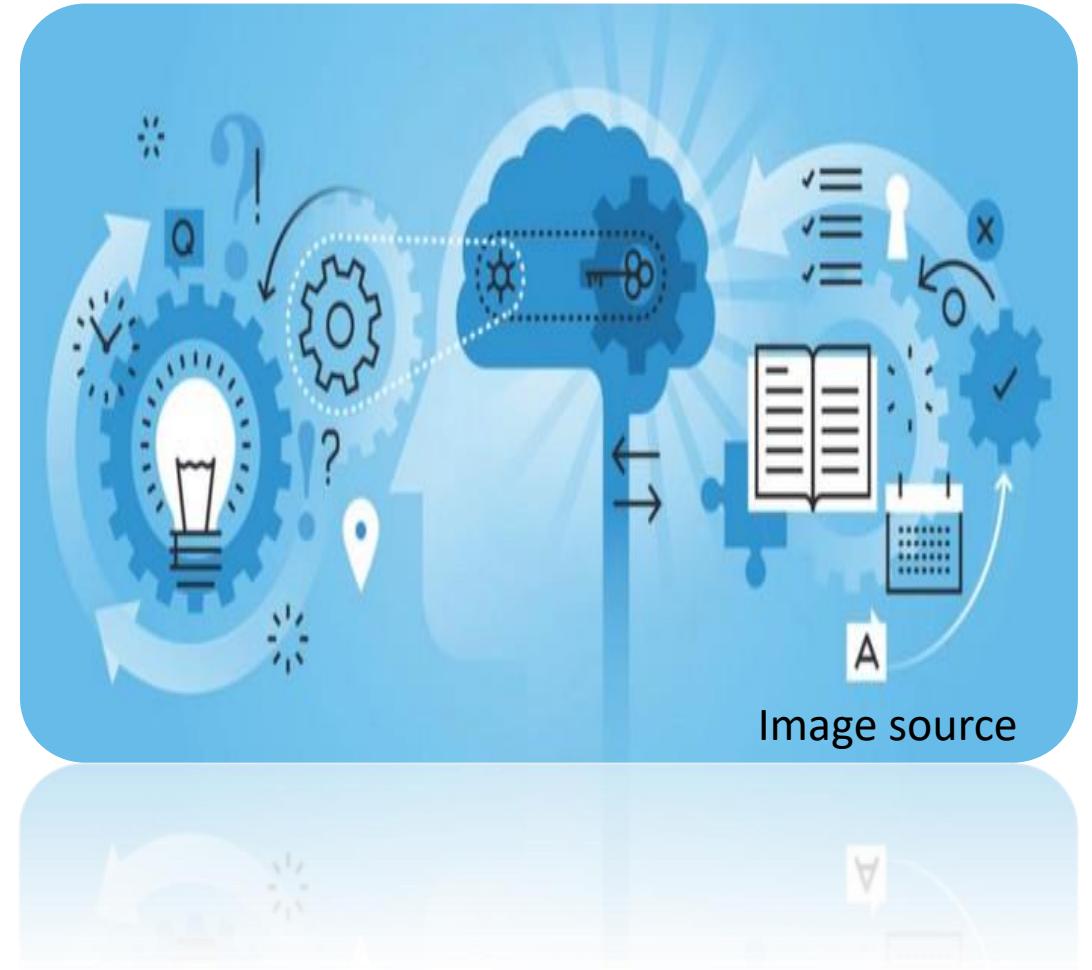
- Solar panels: High-efficiency multi-junction.
- Cameras: Small but efficient sensor. We have the same technology in our smartphone and computers.



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# Lessons that can be drawn from the case study

Corina Bistriceanu



# EARLY ACHIEVEMENTS

- NASA was endorsed by Space Act signed by US President Eisenhower in July 1958
- Early space-science research include observation of the solar system and space exploration
- Others, include developing technologies at the beginning of the 20th Century, promoting the Industrial Revolution
- Over a climate of unsettling general geo-political unrest, NASA stabilizes efforts in the Space Race Challenge against rival Soviet Union



# DEVELOPED TECHNOLOGY

- Over few decades, the Agency has perfected space-observing technologies and research
- Other applications were developed to serve in national defense and climate change study
- Technological discoveries revolutionized science, health, and high-tech developments
- Modern devices for public use originate in research-technologies designed for space-travel



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## CONTRIBUTIONS AND THE FUTURE

- From early inception to present, NASA shaped the face of research and technology applications outlook
- Ground-brake discoveries led to technologically superior devices, programs and products
- New ambitious initiatives promise to take Man on a new venture to Mars (by 2030)
- Meanwhile joining efforts with China and Russia to perfect the launch of intra-planetary commercial space travel

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Q&A

