

Space Economy For All

“Why Space to Think Space”

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The Space Economy

1. What is it?

- Has it been defined?
- How would you define it?

2. What does success look like?

- For a Nation, a company, academic institution, or a community or an individual.

3. How is it measured?

- Growth/GDP/Profit
- Employment
- New business
- National pride

Let's find out

Both the Challenge and
the Opportunity

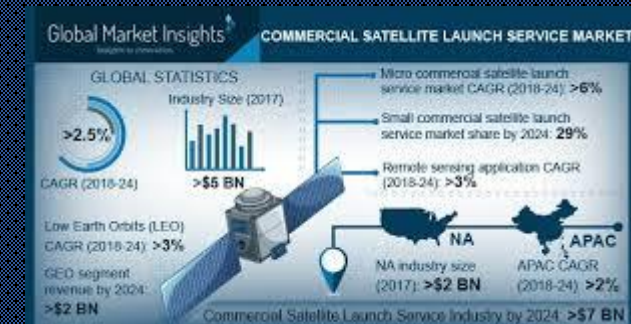
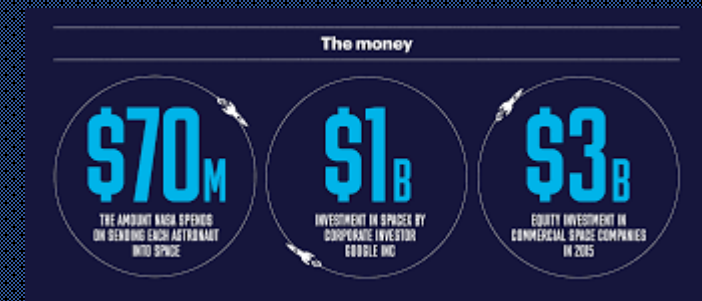
A Pioneering Moment

The Global Space Economy is real

2018 Space Foundation report revealed the 2017 global space economy totaled \$383.5 billion worldwide. Most of this is satellite related

Also during 2017:

- Seven countries/agencies spent more than \$1 billion on space.
- The US share of global governmental space spending was 57%.
- 7% increase in the number of orbital launch attempts worldwide.
- There was a 100% increase in the total number of spacecrafts deployed
- 200% increase in the number of commercial spacecrafts deployed.
- Investors provided record amounts of funding to start-up space companies in 2018.
 - 200 million more than the previous year.
- Investments in ground segment companies that link satellites back to Earth totaled \$110 million in 2018.



So why doesn't it feel more real?

- Post Space Shuttle
- Limited Access to Space
- Cost Prohibitive
- Life becomes increasingly busy

Airplane to Airlines

1903



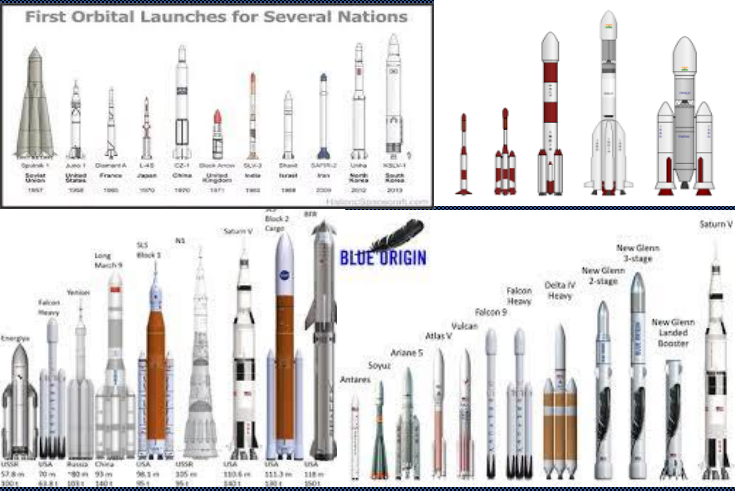
15 years



100 years



- 50 years of heavy regulation = Industry dominated by a few airline companies
- In 1970 see deregulation due to British airlines offering low cost trans-Atlantic flights forcing US airline companies having to lower costs to compete.
- Post deregulation = new carriers = new routes = greater access to the world.
- Fares dropped as competition and the number of customers increased



“Why Space to Think Space”

Founding The Space Team

Why Does Space Matter? = **Relevant**

Why Should I Care About Space? = **Relatable**

My Role

Design Engagement Pathways

Facilitate Process

Create Positive Experience

Build Champions

Success

Research Projects

Community Awareness and Engagement

Start-up Community

Accelerating The Space Economy

- Will require ongoing participation of government, commercial companies, international partners.
- Work towards political and international cooperation and collaboration, strategic partnerships.
- The Budgets of NASA along with most global space agencies, and even national governments is insufficient to sustainably fund the space economy and will need a range of public and private contributors to advance beyond the initial stages.
- Broad, robust, public support
- Tolerance for risk and bad times.
- Continue the grassroots efforts!!!
- Preparing , energizing, mobilizing the future generations!!!

 SUSTAINABLE DEVELOPMENT GOALS



UNITED NATIONS
Office for Outer Space Affairs

The Space Team

UPMC LIFE CHANGING MEDICINE

Thank you

John Donehoo, RPh.