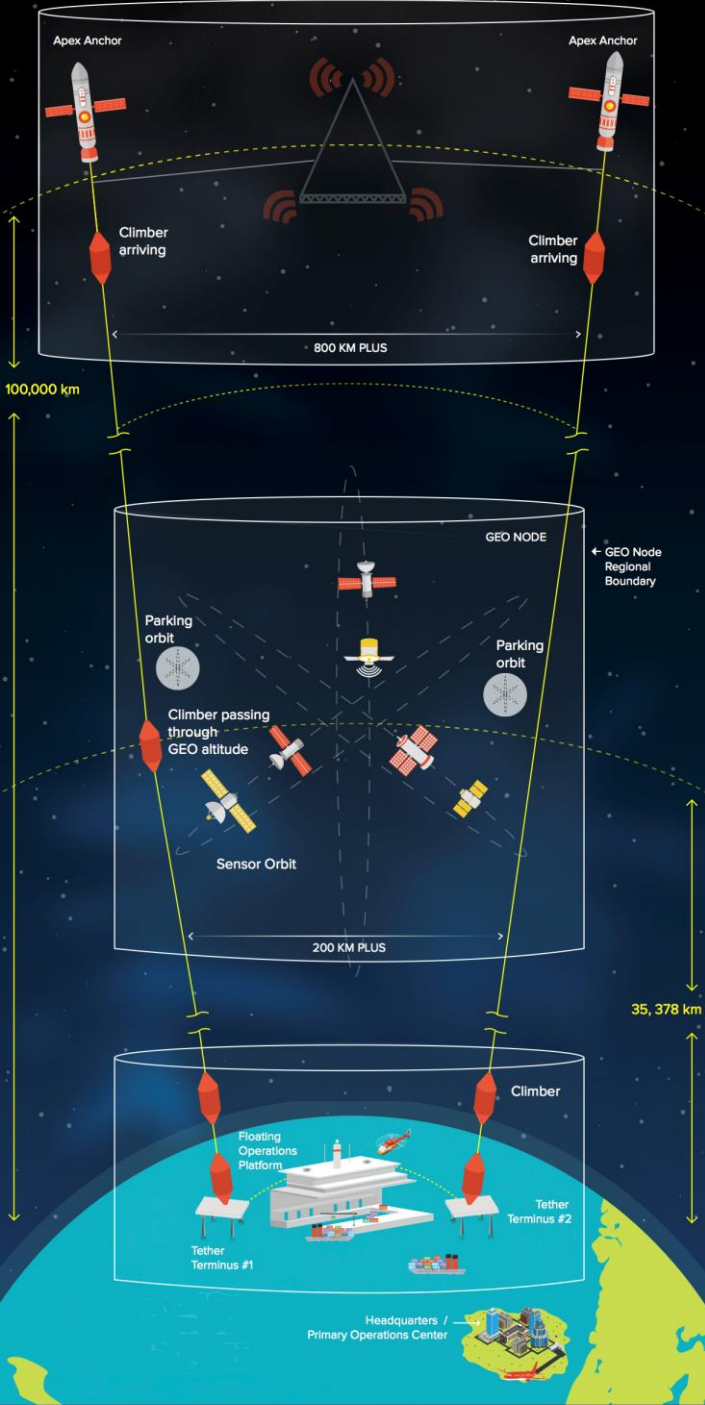


GALACTIC HARBOUR



ISEC President's Report

Peter A. Swan, Ph.D.
President, International Space
Elevator Consortium
Member, Board of Directors
Past Industry Professor
Technical University of Delft and
Stevens Institute of Technology
TSTI Emeritus Professor
Member, International
Academy of Astronautics
Member, National Space Society
Fellow, British Interplanetary Society
Fellow, American Institute of
Aeronautics and Astronautics

Note: become involved with your
Favorite organizations, both local
and international

Google's 8 innovation principles

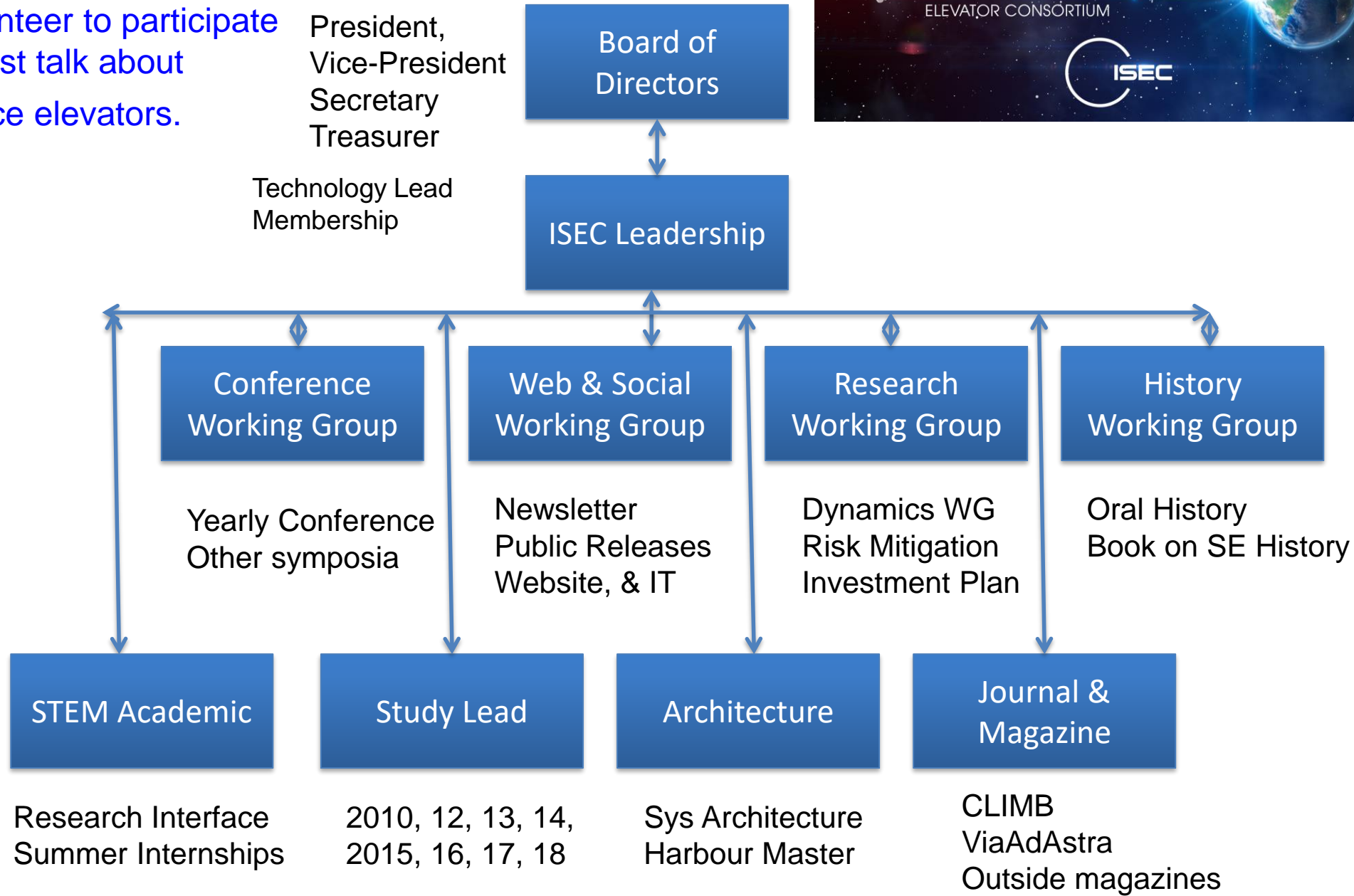
- Focus on the user
- Open will win
- Ideas can come from everywhere
- Think big, but start small
- Never fail to fail
- Spark with imagination, fuel with data
- Be a platform
- Have a mission that matters



ISEC's Vision: A world with inexpensive, safe, routine, and efficient access to space for the benefit of all mankind.

ISEC's Mission: The International Space Elevator Consortium (ISEC) promotes the development, construction and operation of a Space Elevator (SE) Infrastructure as a revolutionary and efficient way to space for all humanity.

Please approach any one of us to ask questions, volunteer to participate or just talk about space elevators.



Leadership Team



Peter Swan	President & MBoD
Dennis Wright	Vice President (Acting)
John Knapman	Chair, Research Committee & MBoD
Ted Semon	President Emeritus & Treasurer
David Horn	Chair, ISEC Conference & MBoD
Dennis Wright	Study Lead, Membership Chair & MBoD
Mark Dodrill	Webmaster & MBoD - Thru August
Douglas Ahlquist	New Webmaster
Fitzer Fitzgerald	Chief, Space Elevator Architect & MBoD
Martin Lades	European Representative & MBoD
Bryan Laubscher	Lead, Material Research & MBoD
Peter Glaskowsky	Contributing Editor Via Ad Astra
Anders Jorgensen	Editor CLIMB Journal
Peter Robinson	Lead, Dynamics Research
Matthew Farrell	Chair, History Committee
Kevin Forrest	Lead, Social Media
David Schillings	Lead, Conference and MoF Science Fest
	Note: MBoD: Member, Board of Directors

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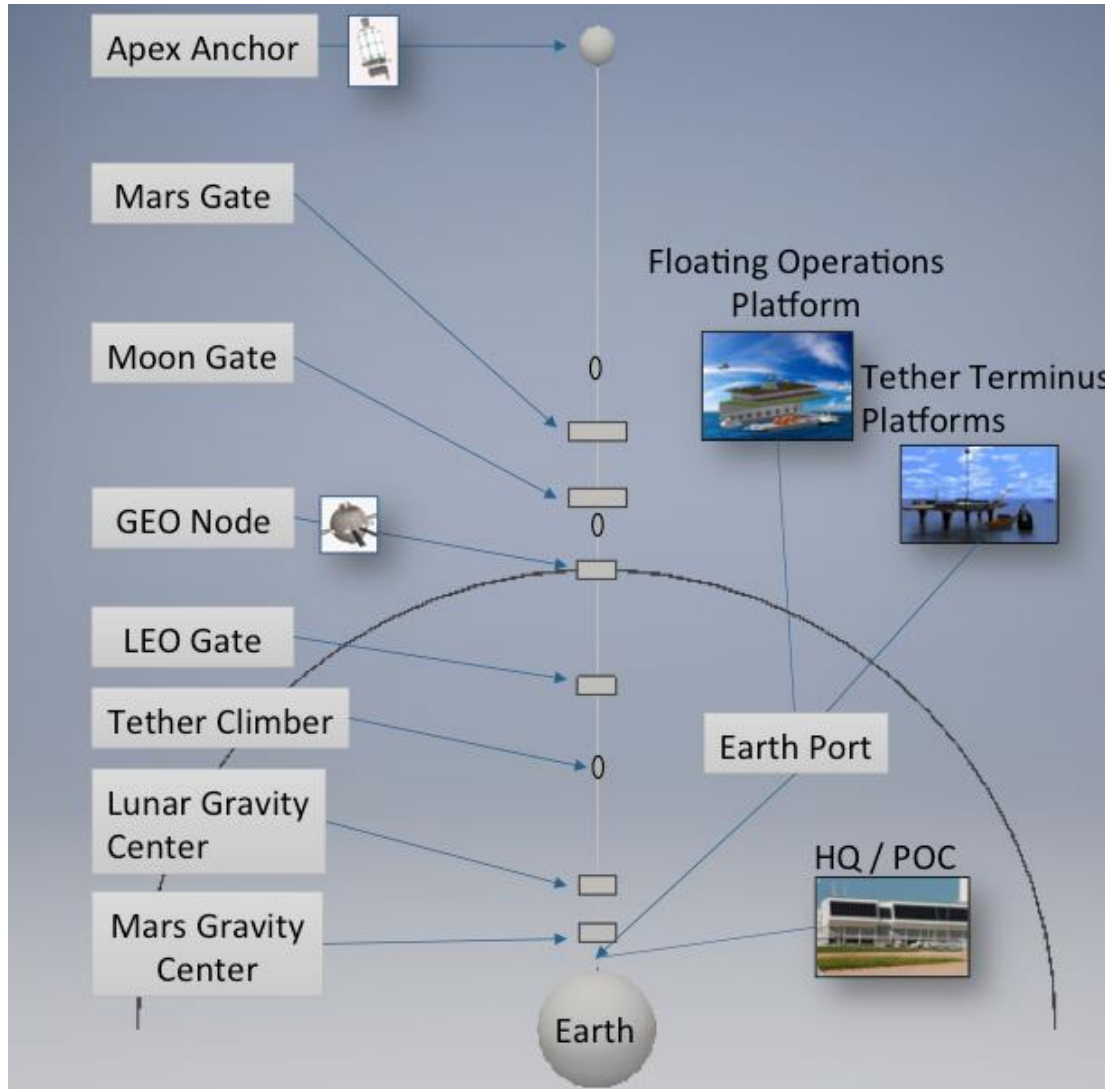
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8/25/1?

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Lexicon for a Space Elevator



Apex Anchor Node

Mars Gate

Moon Gate

GEO Node

LEO Gate

Lunar Gravity Center

Mars Gravity Center

Tether Climbers

Tether Structure

Earth Port

- Earth Terminus
- Floating Operations Platform

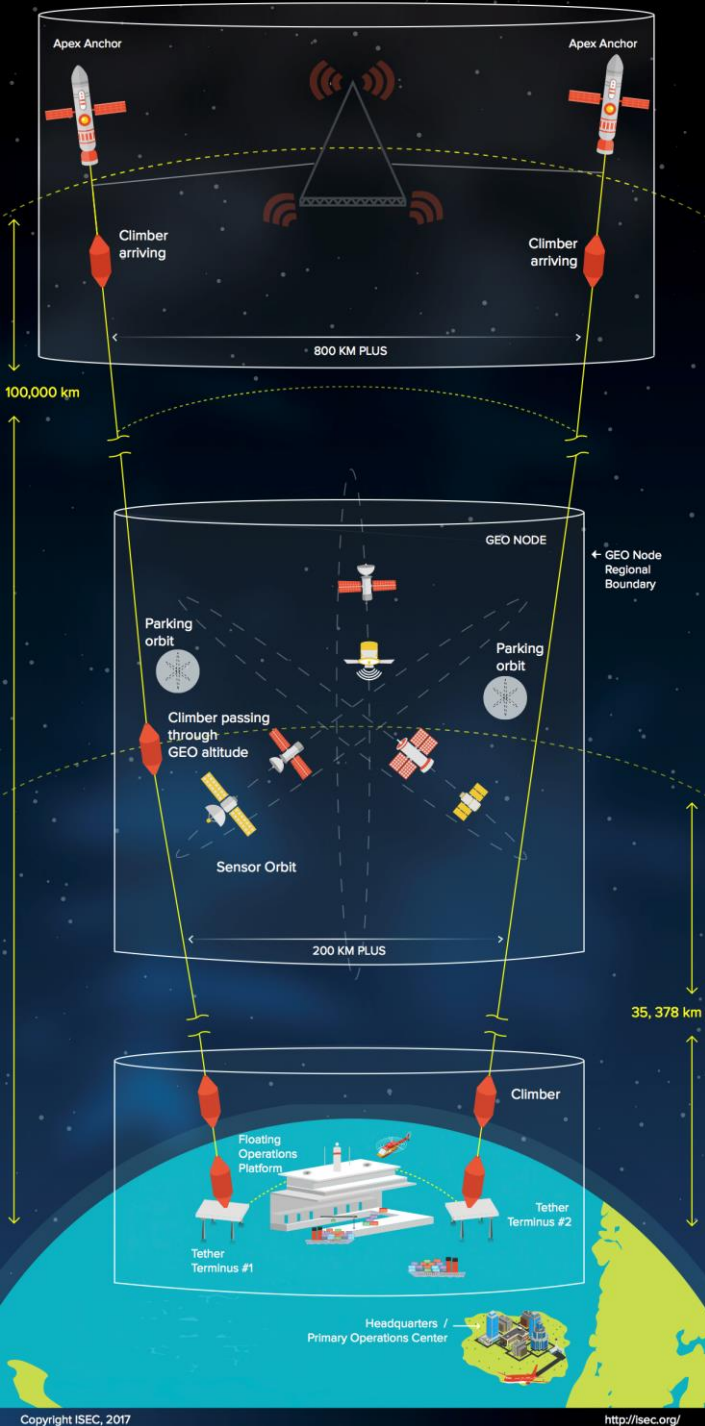
Headquarters and Primary Operations Center (HQ&POC)

Major centers of activity

Locations on tether

Tether Material in development

GALACTIC HARBOUR



Strategic Approach



Our Strategy is to link the Space Elevator Transportation System to the Space Elevator Enterprise; within a Unifying Vision – The Galactic Harbour.

Exciting Year for ISEC



- **New Member of the Board of Directors:**
Sandee Schaeffer, Editor Newsletter & Education Chair
- **Accomplishments this year [Aug 2017-18]:**
Successful Conference led by David Horn
Published “*Design Considerations for a Software Space Elevator Simulator*”
Transcribed many oral interviews for History Committee
Coordinated with International Activities
Space Elevator Track at National Space Society’s ISDC
- **Plans for next year [Aug 2018-19]:**
Successful Conference with Adrian Nixon speaking today
Complete Study on Multi-stage Space Elevators
Kick-off Study on ISEC Outreach Program with near-term Experimentation Concepts
Chase down funding for research
Conduct many more oral interviews

First View of the Fragile Earth
Credit: NASA



Recent and near term conferences



International Astronautical Congress [Sept/Oct]

2016 Guadalajara

2017 Adelaide

2018 Bremen

2019 Washington DC

National Space Society Conference [late May]

2017 St. Louis

2018 Los Angeles

2019 Washington DC

National Space Society Space Elevator Track



- 2:00 [Space Elevator 101](#), Status & Architectures.
Peter Swan (International Space Elevator Consortium)
- 2:25 [Lunar Space Elevators](#). Michael Laine (LiftPort)
- 3:00 [Galactic Harbour](#), A Strategic Vision Emerges.
Michael Fitzgerald (International Space Elevator Consortium)
- 3:30 Space Elevator [Earth Port](#).
Vern Hall (International Space Elevator Consortium)
- 4:00 [NSS/NASA Ames Student Space Settlement](#) Contest Presentation
- 4:10 Space Elevator [Research and Studies](#).
Dennis Wright (International Space Elevator Consortium)
- 4:30 ISEC [History Committee Activities](#).
Matthew Farrell (International Space Elevator Consortium)
- 4:45 [Questions and Answers](#) –
Fitzgerald & Swan (International Space Elevator Consortium)

26 May 2018, Los Angeles

ISEC Study Activities



Year	Study Theme
2018*	Design Considerations for Multi-Stage Space Elevator
2017	Design Considerations for Space Elevator Modeling and Simulation
2016	Design Considerations for GEO Node and Apex Anchor
2015	Design Considerations for Earth Port
2014	Space Elevator Architectures and Roadmaps
2013	Design Considerations for the Tether Climber
2012	Space Elevator Concept of Operations
2010	Space Elevator Survivability and Space Debris Mitigation

Notes: all completed studies on www.isec.org in pdf format for free
*Study being drafted

Continuing Activities



- Summer Internship
 - Had pathfinder program 2016
 - Initiated full program in 2017
 - Two international interns in 2018

\$500 + Certificate

<i>Name</i>	<i>School</i>	<i>Tasking [750 word paper]</i>	<i>Interviewee target</i>
Matthew Dupree	Univ. of California	Research into software and future technologies for space elevator simulation	Dennis Wright
Yuri Shimane	Imperial College London	Impact of the Moon Village on a Lunar Space Elevator	Mr. Ohno (ISEA) & Dr. Ishikawa

Mini-Workshops

2019 ISEC Outreach

2018 Design of Multi-Stage Space Elevator Technological Readiness Evaluations



Goal: Involve the attendees to stimulate thoughts and inputs on timely topics --.

Outputs: Summary Report to be posted on ISEC website within 60 days!

- Approach:**
- 1) 30 minute major talk on topic -
 - 2) 5 minutes of discussion on handout sheet [stimulation of ideas and areas to discuss]
 - 3) 10 minutes of brainstorming on topics to discuss
 - 4) 45 minutes of brainstorming in small groups
 - 5) 20 minutes of discussions by small groups to large audience on results of brainstorming
 - 6) 10 minute summary
 - 7) champion and helper will summarize the results and put on the web

History Working Group



- History Working Group with Matthew Farrell as Lead.
- Principle effort at the present time is to conduct Oral History Interviews. Please volunteer and dedicate an hour.
- Please review the three page history chronology on the web
- Suggest activities to enhance the space elevator history process
- Join the History Committee

ISEC's Needs



- Major Funds for Research
- Funds for Student Internships next summer
- Funds to support conference

Type	Level	Renewal (\$)
Individual	Junior (up to 18 years old)	20
Membership	Student (college)	25
	Professional	50
	Family (5 immediate relatives)	95
Individual	Ribbon Rider	500
Sponsorship	Builder	1,000
	Architect	5,000
Corporate	Small (50 or less)	800
Sponsorship	Medium (51-500)	2,500
	Large (>500)	6,500
	Note: any BoD member can collect	

Challenge

- We live and breath by volunteers. Thank you all for your past work! We would not be here without your contributions.
- However, we are now approaching an important time period. The world is breaking out of our Earth bound habitat and moving towards off-planet activities.
- Lets jump in and make that happen!

Musk doesn't just want to go to Mars: He wants to build a civilization there.

8/25/17



Recently the ISEC Chief Architect Nicely Described where we are:

.... seems a bit like we are
... "ready to begin to start"
... but indeed ... we ARE ready to begin to start

