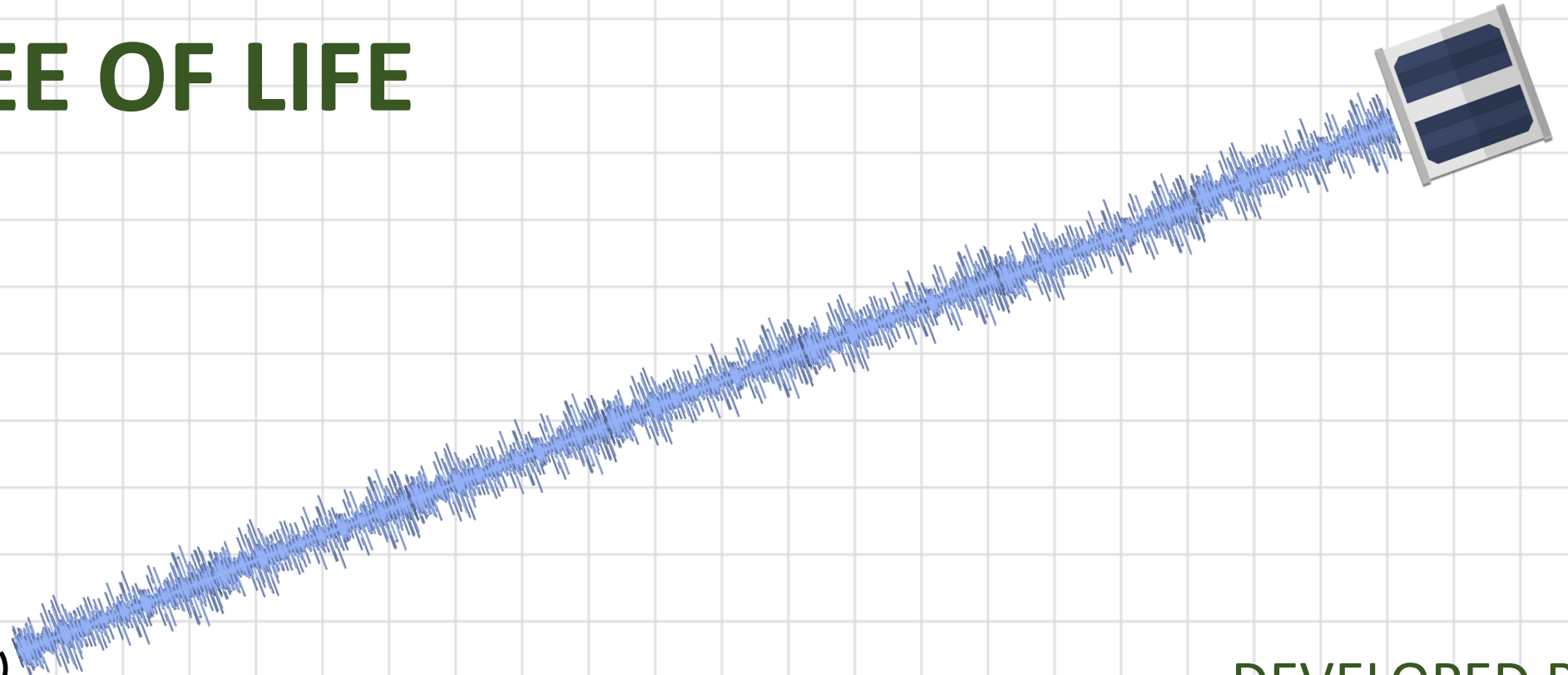
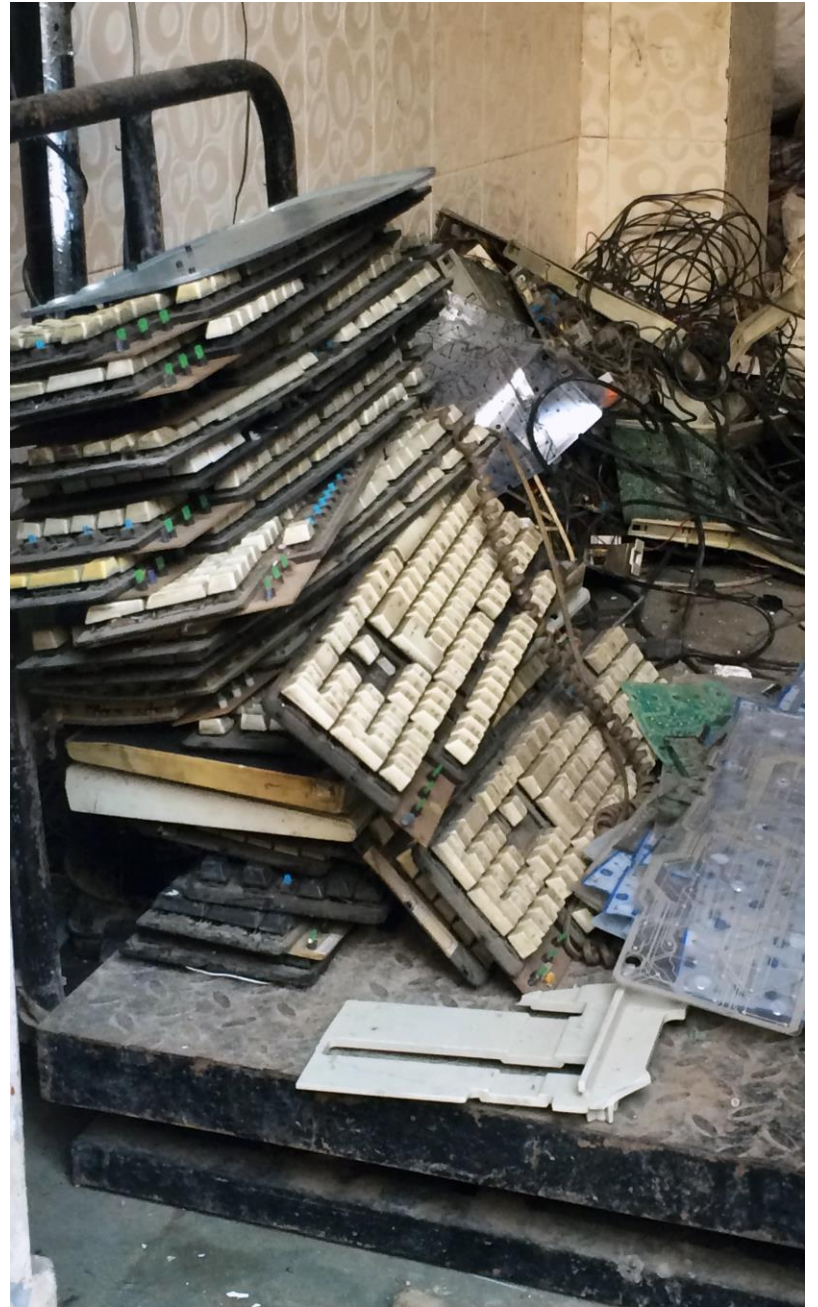


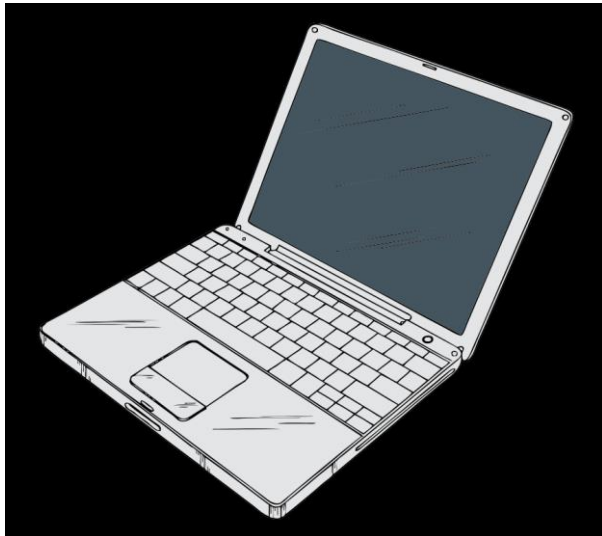
TREE OF LIFE

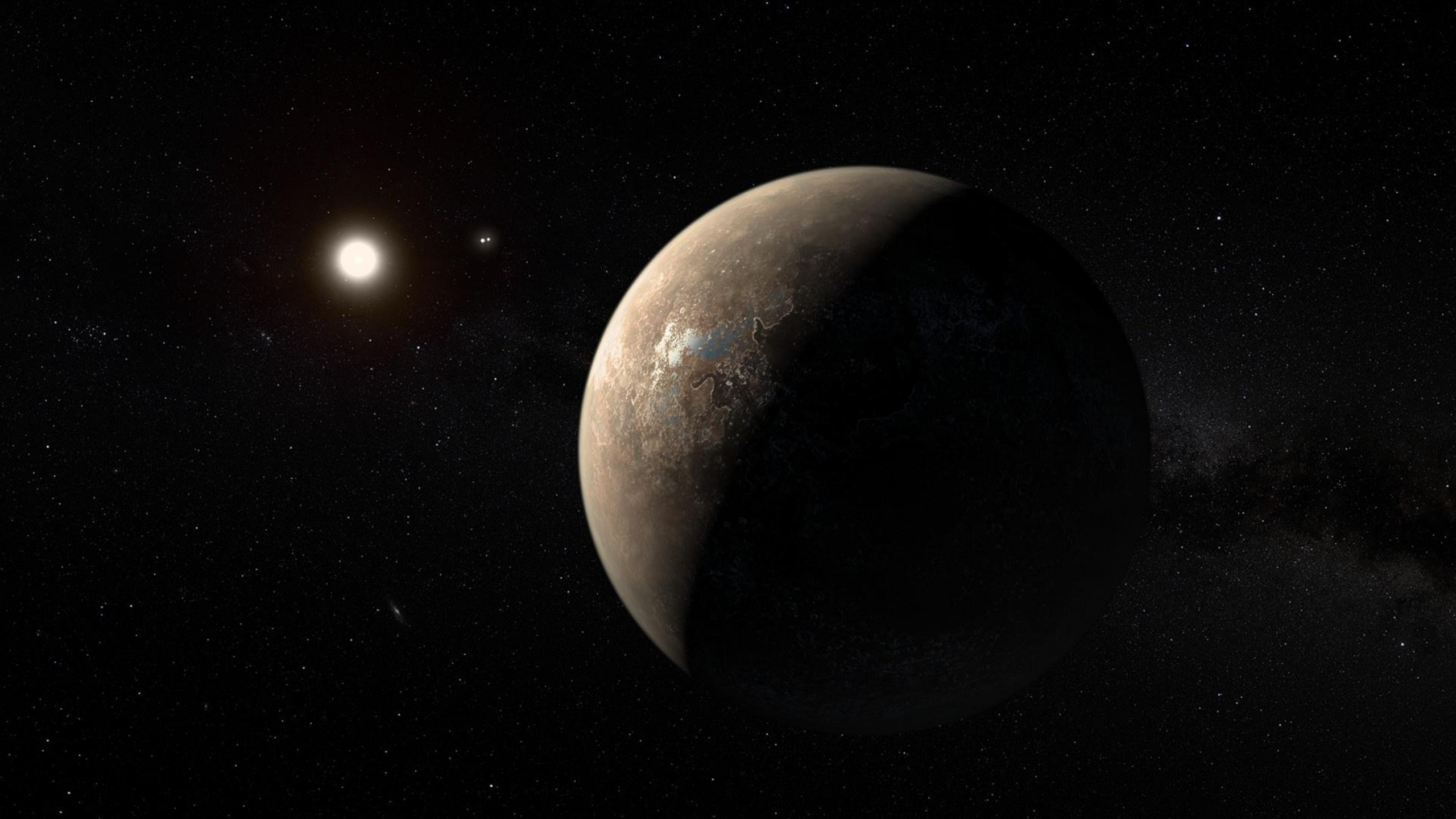


DEVELOPED BY
JULIA CHRISTENSEN +
A-TEAM @ JPL

JANUARY 16, 2020









PROXIMA B

CUBESAT

2069-2111

NOW

**CREATIVE
CULTURAL
SOCIETAL
ELEMENT**

- Propulsion
- Autonomy
- Interstellar Medium
- Longevity
- Upgrade issues
- Long-term public interest

LONGEVITY

**MOVING MEANING INTO THE FUTURE
IS DIFFERENT THAN
MOVING DATA**



1. Bristelcone Pine,
California, USA
5,067 years old

2. Methesula,
Bristlecone Pine,
California, USA
4,849 years old

3. Llangernyw Yew
Wales, UK
4,000-5,000 years old

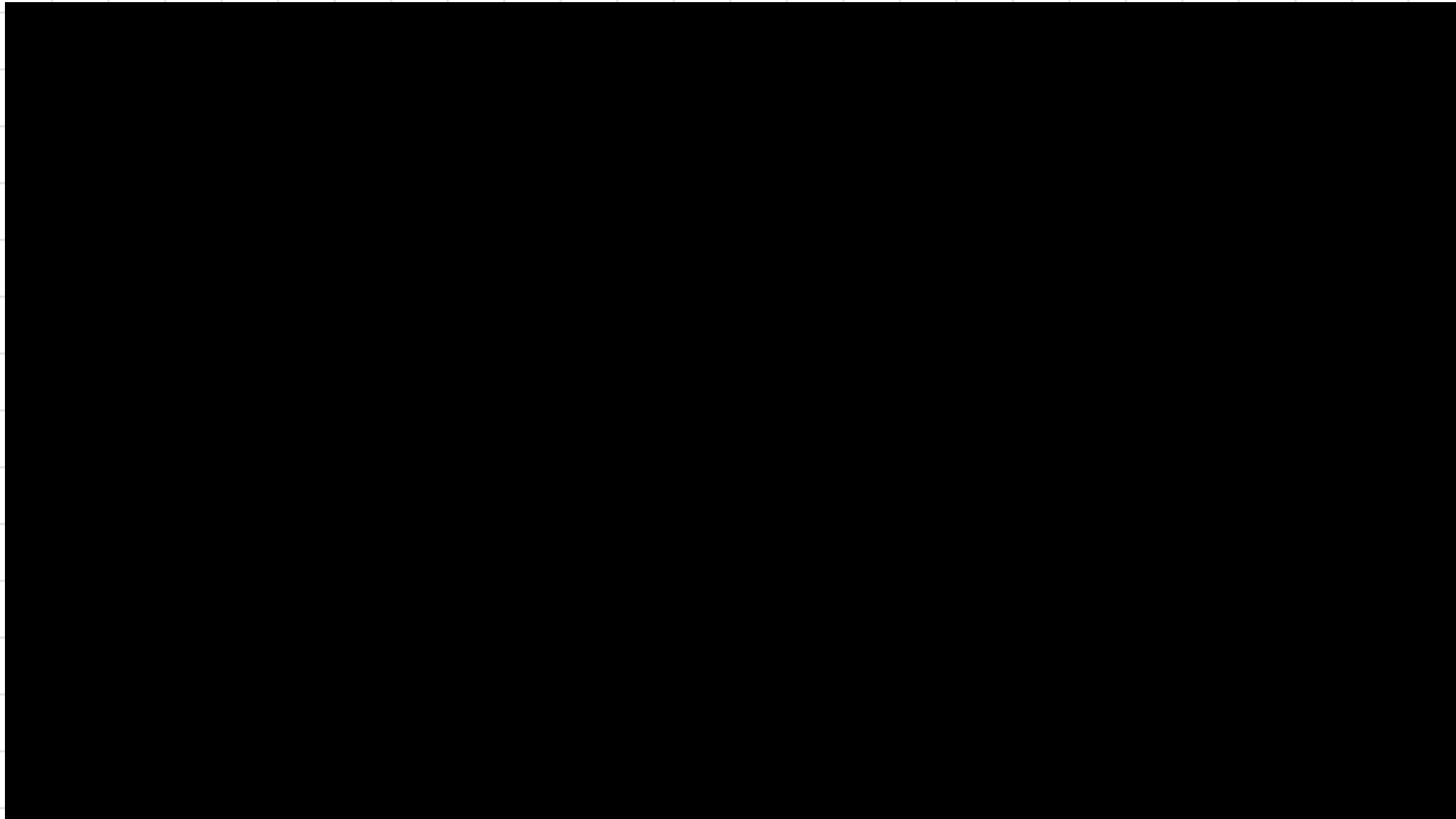


4. Sarv-e Abarkuh
Abarkuh, Iran
4,000-5,000 years old

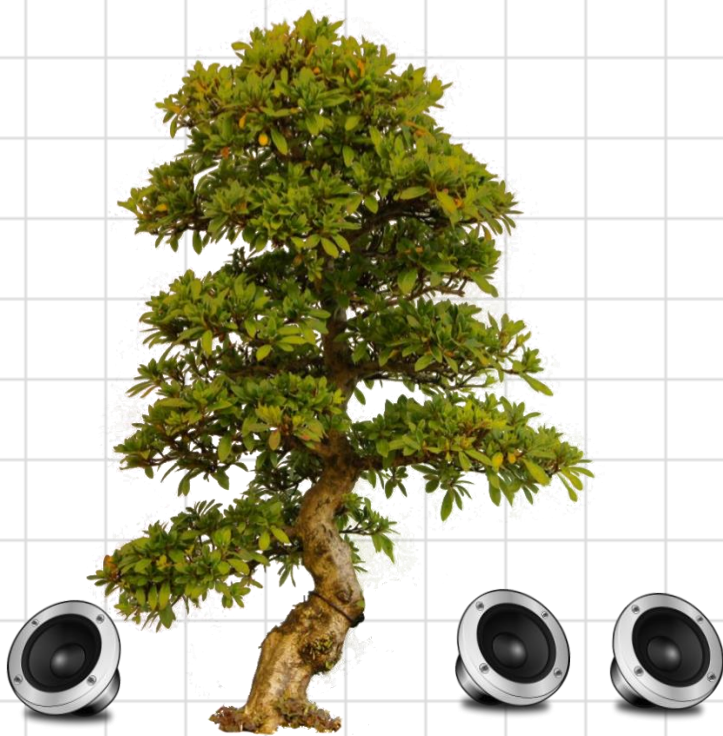


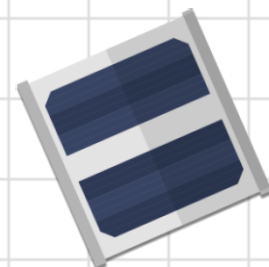
TREE SCIENCE FIGURES OF MERIT / A-TEAM, MAY 21, 2019

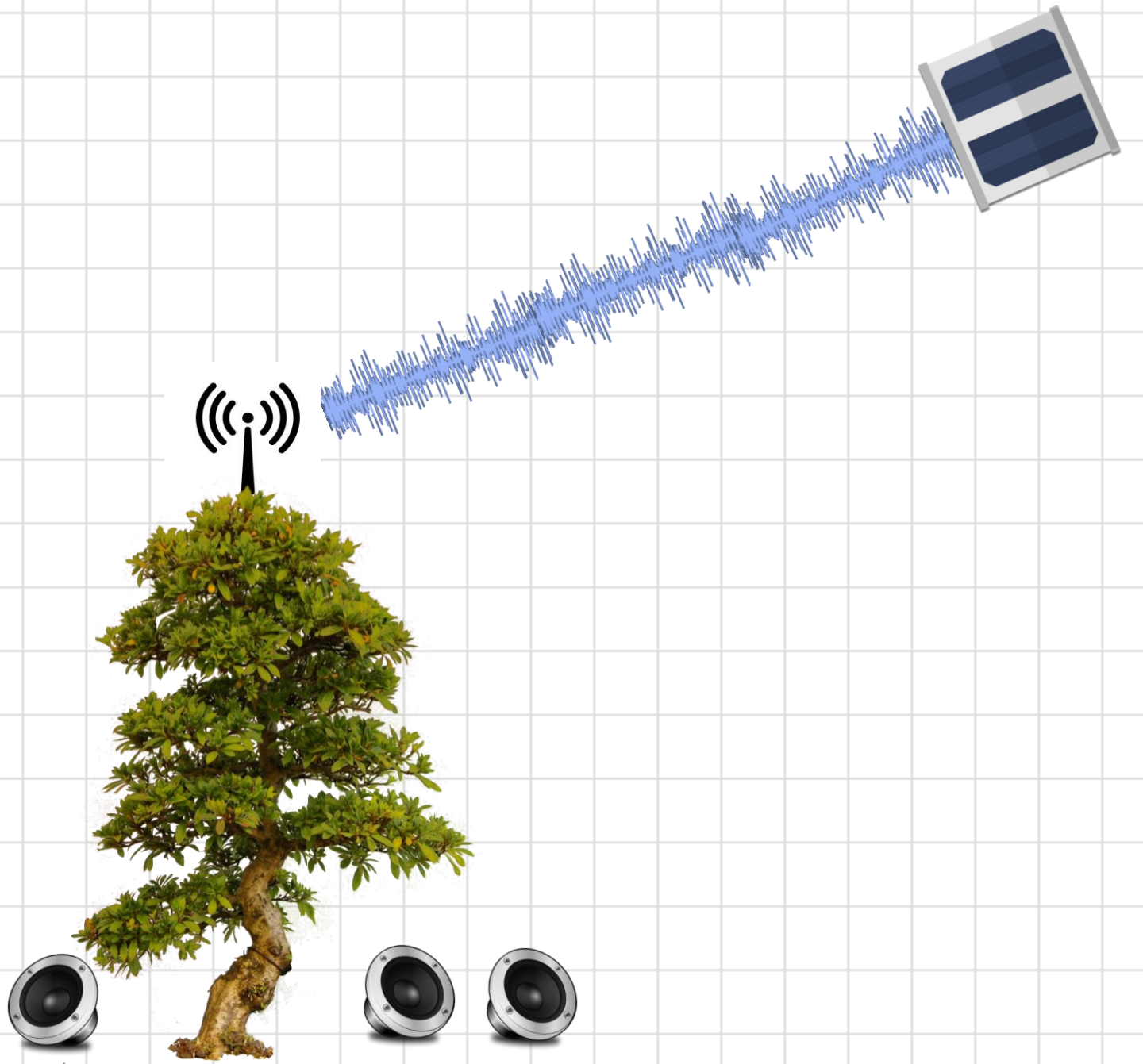
FOM	Tree growth (diameter)	Tree structure	Water content Xylem cavitation	Environmental parameters (temp, albedo, humidity)	Atmospheric changes carbon isotope
Dataset longevity	5	3	5	5	5
Tree health	4	4	5	3	2
Environmental stability	4	3	4	5	5
Interperability, flexibility, cultural relevance, fundamental, broad applications	5	3	5	5	4
TOTAL	18	13	19	18	16

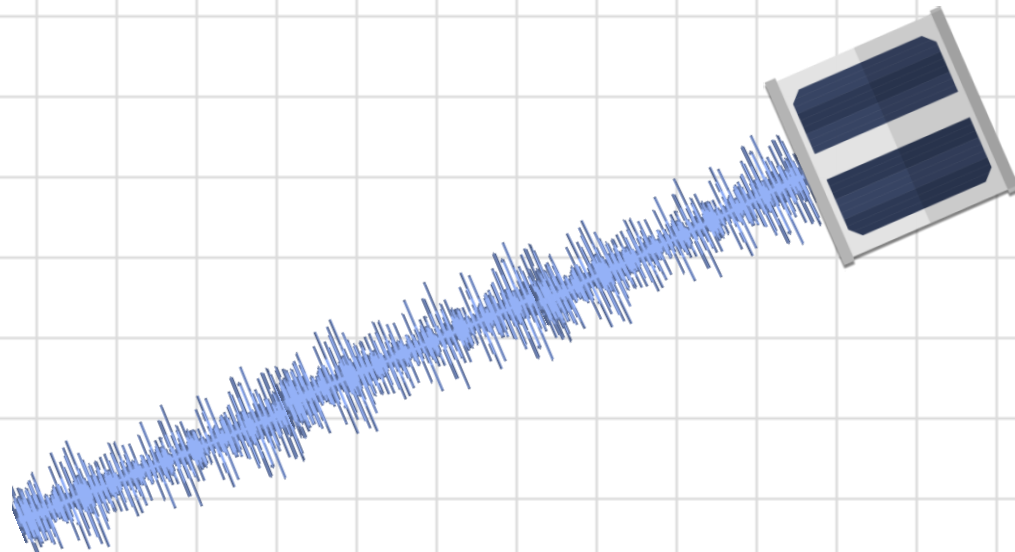


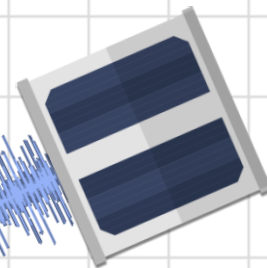
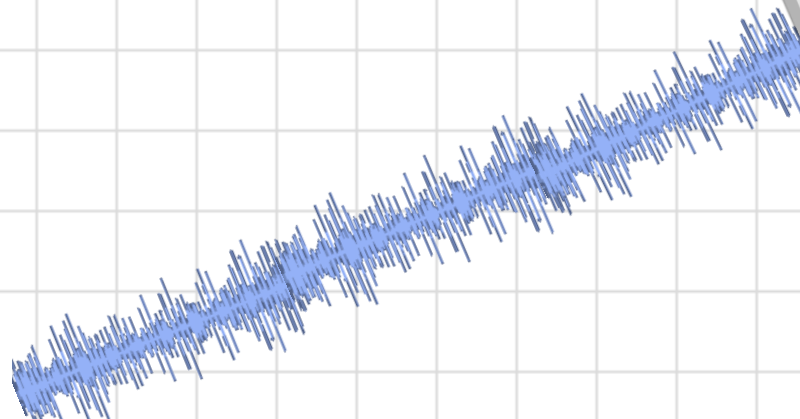












SHARED GOALS:

- **CHANGES IN EARTH'S SURFACE OVER A RANGE OF TIME SCALES (ESPECIALLY LONG-TERM).**
- **LONGEVITY OF SPACECRAFT OPERATION IN SPACE.**
- **SCIENCE AS A MEANS OF GENERATING SOCIETAL BENEFIT AND CULTURAL ENGAGEMENT.**
- **ART EMPHASISES THE CRITICAL IMPORTANCE OF THINKING LONG-TERM ABOUT DATA, TECHNOLOGY, SCIENCE, HUMANITY AND PLANET EARTH.**

BENEFITS OF T.O.L. INSTALLATION:

- MEASUREMENTS AT THE SITE OF TREES SONIFIED FOR PUBLIC CONSUMPTION, ALLOWING A CREATIVE ACCESS POINT TO DATA
- IN-SITU MEASUREMENTS AT TREE COULD PROVIDE DATA CALIBRATION FOR DATA GATHERED BY SPACE-BOUND VEHICLE.
- HARNESSING LIVING TREES TO CREATE A TERRESTRIAL ANTENNA NETWORK MERGES SCIENCE, TECHNOLOGY, AND THE PUBLIC IMAGINATION.
- THE SONG OF THE TREES WILL BE AVAILABLE ON-LINE, IN REAL TIME, FOR GENERATIVE PUBLIC CONSUMPTION + CREATIVITY.

LONGEVITY IS THE COIN OF THE REALM.



The background of the slide features a close-up, circular cross-section of a tree trunk, showing concentric growth rings in shades of light brown and tan. A thin, light-colored grid is overlaid on the entire image, creating a subtle pattern of squares.

TREE OF LIFE

JPL A-TEAM / JULIA CHRISTENSEN