

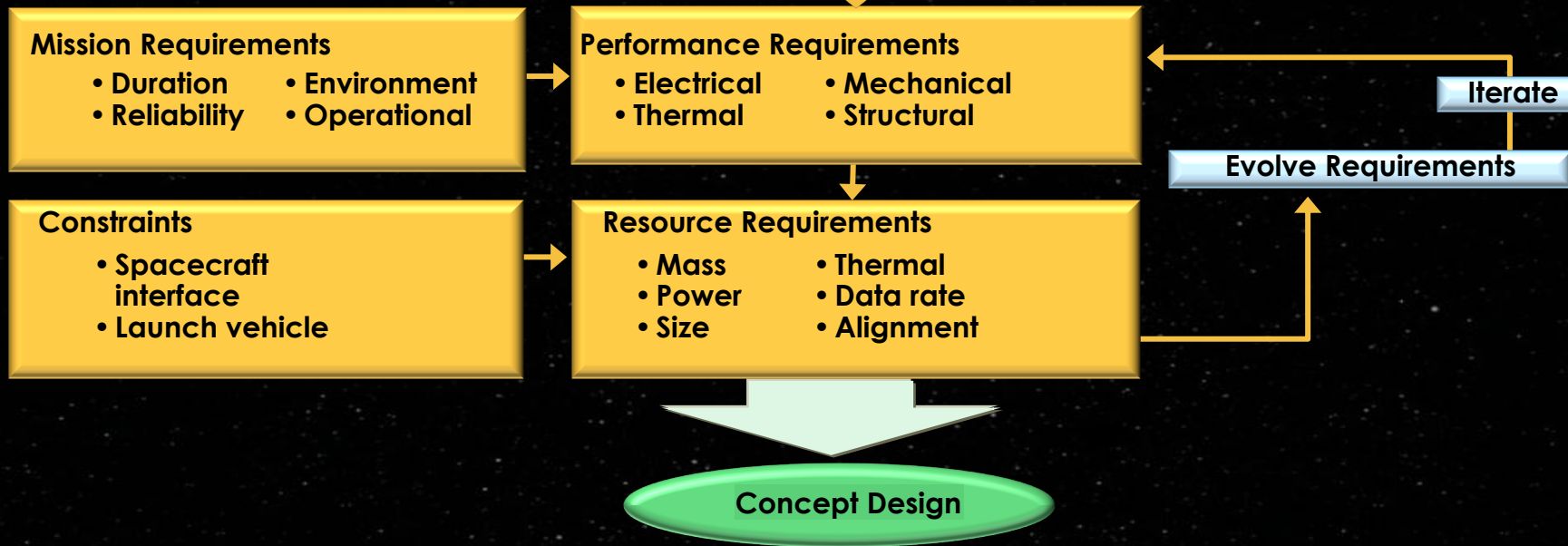
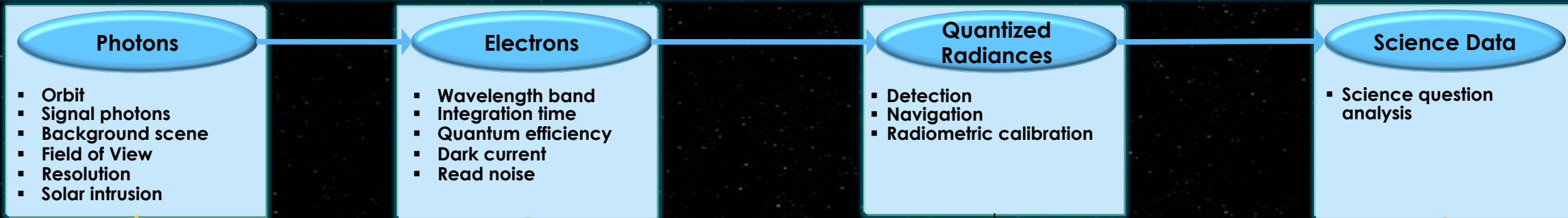
Lockheed Martin Space Advanced Programs

Requirements in NASA Science Missions



Performance and Operational Measurement Requirements

Emitted radiance → Detect photons; Convert to e⁻ → Calibrate Data → Science Data



Example Requirements Tree



Level 1

Program



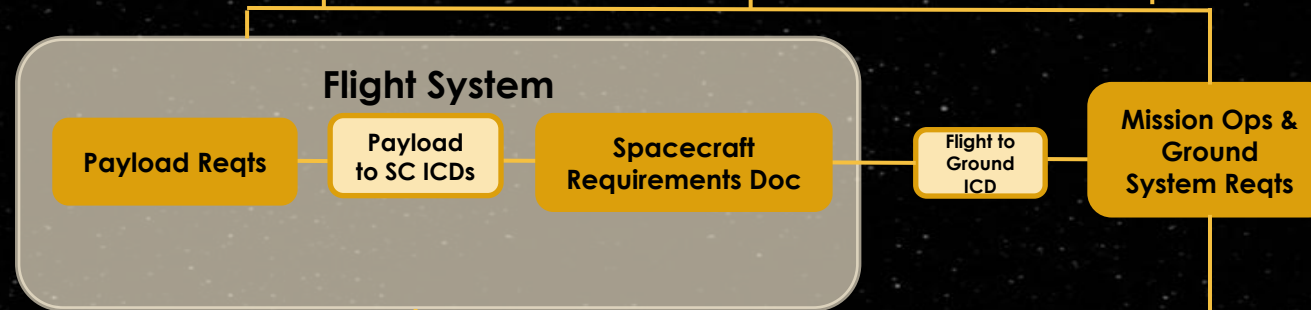
Level 2

Project



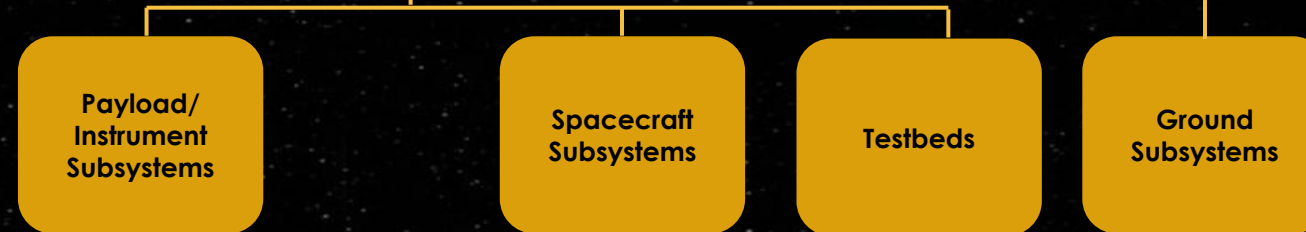
Level 3

Element-Developed,
Project Approved



Level 4

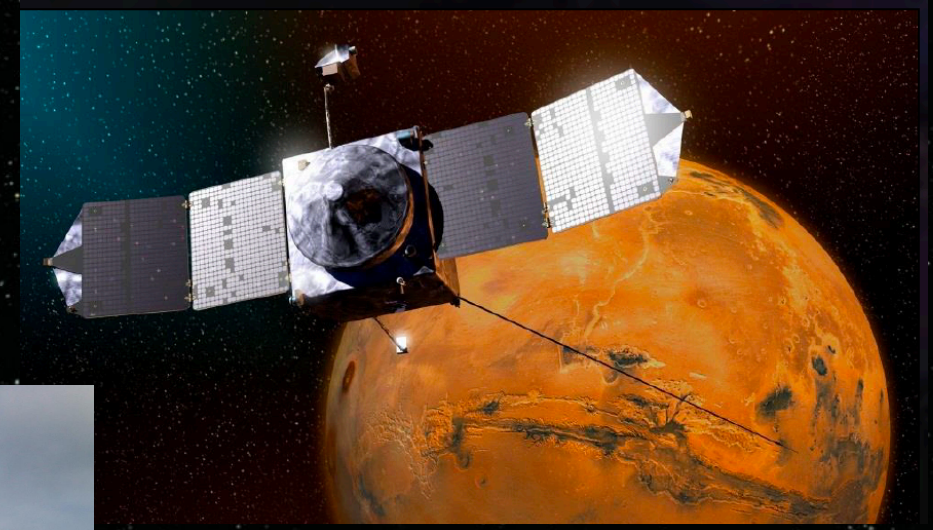
Element-Controlled



Mars Atmosphere and Volatile Evolution (MAVEN)



- ❖ Objective: Characterize Mars' atmospheric escape
- ❖ PI: Dr. Bruce Jakosky, CU LASP
- ❖ Implementing Institution: NASA Goddard Space Flight Center
- ❖ Spacecraft and Mission Ops: Lockheed Martin
- ❖ Instruments: UCB SSL, CU/LASP, NASA GSFC, CNES
- ❖ Mars relay: Jet Propulsion Laboratory



- ❖ Launched November 18th 2013
- ❖ MOI September 22nd 2014
- ❖ Currently in third mission extension

Science Missions Across the Solar System

