

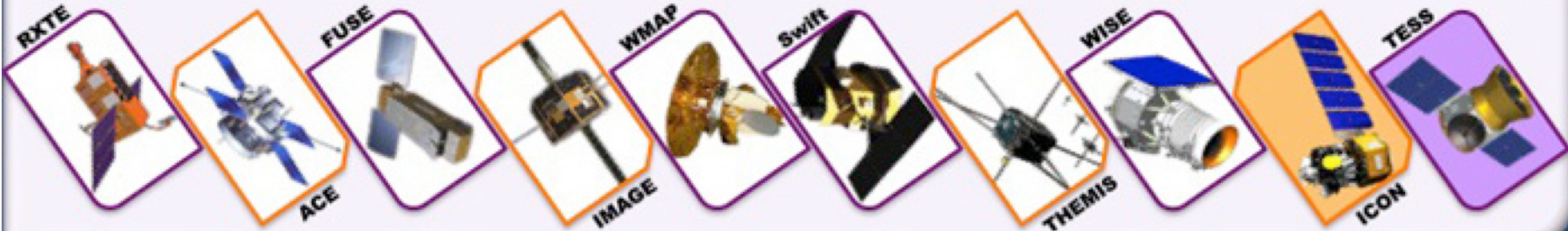
A new mission class?

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Astrophysics & Heliophysics Explorers Missions

MIDEX ≈\$300M – Inc. launch



SMEX ≈\$170M – Inc. launch

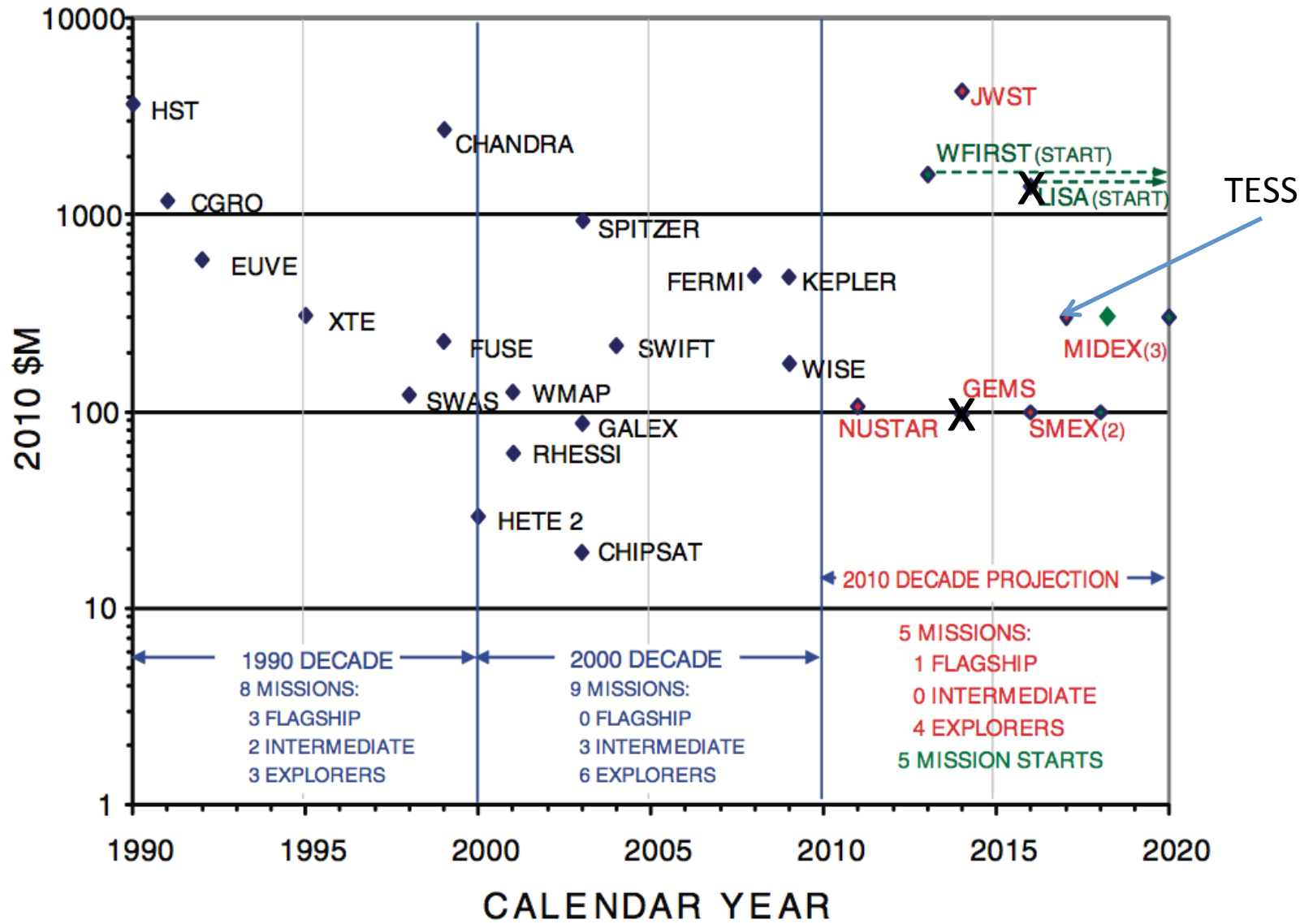


UNEX • MO • INTERNATIONALS



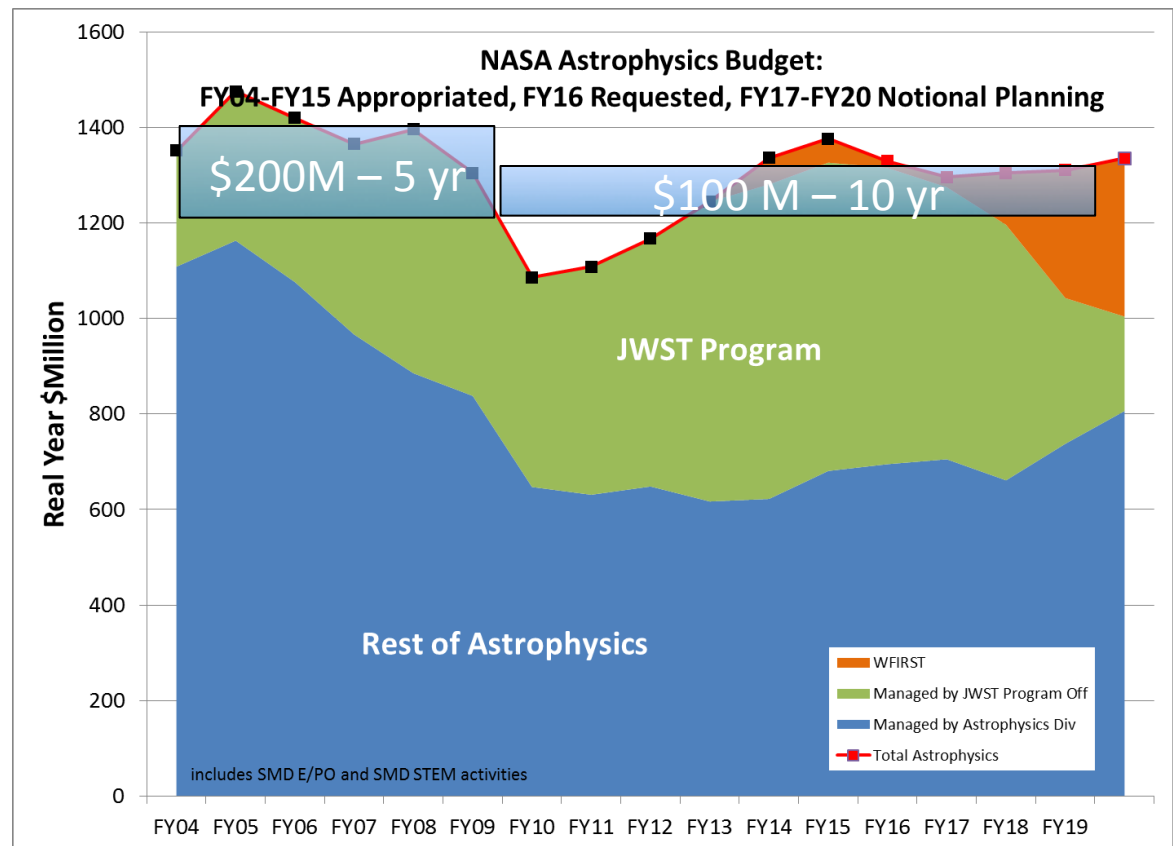
Astrophysics Missions
 Current Astrophysics Missions
 Heliophysics Missions
 Current Heliophysics Missions

<http://explorers.gsfc.nasa.gov/missions.html>



Discussion within Missions subcomm

- Clear consensus for a mission with a \approx \$800M cost cap, which, after including launch costs, results in \$1B.
- Long development times should be avoided
- Zero-sum game: Do you want to launch two midExes or a probe?



M. Perez talk

Where is the money coming from?

- Increased budget (Ha!)
- Develop partnerships
 - Other countries
 - Unless partnership is equitable, it may increase total cost
 - Public – Private partnerships: foundations, universities
 - Common in ground-based, yet to be tried in space

How to select them?

- Probably not PI direct call
- What was done 10 years ago?
 - Origins Probes Mission Concepts (2004)
 - ROSES call for quick (~9 month) paper concept studies
 - ~9 concepts selected in 2004; total funding ~\$1M (\$100K average)
 - Astrophysics Mission Concepts Study (AMCS; 2007)
 - ROSES call for ~1 year paper concept studies
 - Nineteen (+1) ASMC concepts selected in 2007; total funding \$13M (\$700K average)
- Each Flagship STDT will be challenged to identify one or more probe-class versions of their mission and to estimate the percentage of the original science case that can be achieved.