

Assessment of GOES-R Product Potential Benefits using the NOAA Observing System Integrated Analysis II (NOSIA-II)

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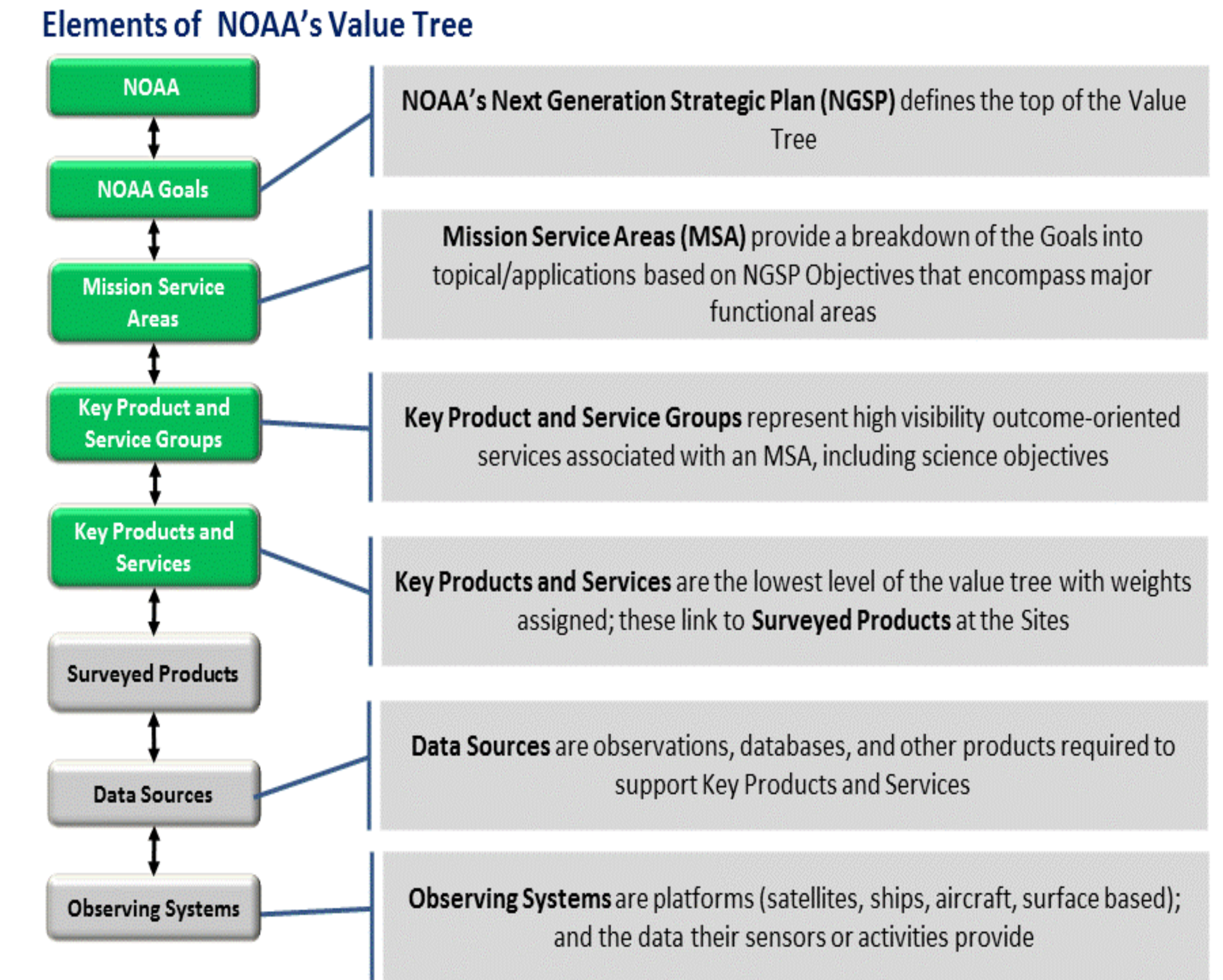
1. NOSIA - II

NOSIA is a complex model of NOAA's business practices used to affect outcomes

- 1 Year to complete data collection
- **1,100+ surveyed products at 72 survey sites**
- 500+ SME elicitations, highly variable
- **565 unique data sources each influencing up to 370 products**
- Up to 80 data sources for a product
- **Products prioritized and linked to NGSP objectives**
- 20,000 connecting nodes with 120,000 active connections among the nodes

2. NOSIA-II Value Tree

NOAA's Value Tree enable measurements of how observing systems benefit NOAA's Mission Service Areas via their SME-defined benefit to NOAA's products and services.



3. GOES R Assessment Approach

The Assessment process:

- Leverage NOSIA-II
- Translate incremental improvements in data sources for NOAA's key products and services into measurable benefits to each of NOAA's Mission Service Areas
- TPIO and GOES-R program offices collaborate to identify value tree changes in order to measure improvements specifically enabled by GOES-R

RESULTS:
Objective Measurement of GOES-R's benefit to NOAA's products and services and ultimately to NOAA's Mission Service Areas

4. Collaboration

Office	Key Roles
TPIO	NOSIA-based Assessment Multi-Period Value Tree Requirements Gap ReAssessments
GOES-R Program Office	SME Identification Platform/Program Information
GOES-R Proving Ground	New Products and their Sensitivity
Line Offices	New product priorities and linkages to NGSP Objectives



5. Model Assessment / Sensitivity Criteria

TASKS	
Legacy Sensors	Identify NOSIA-II surveyed products that GOES N/O/P sensors impact substantively.
	Map GOES N/O/P legacy sensors to GOES R sensors.
	Identify NOSIA-II surveyed product performance that may significantly change with the replacement of GOES N/O/P sensors with GOES R sensors.
	Map legacy platform specific derived products to GOES R follow-on products.
New Sensors	Identify new GOES R sensors
	Associate NOSIA-II observing capability groups with new GOES R sensors
	Identify NOSIA-II survey products expected to benefit from GOES R associated capability groups
	Assess how GOES R enhanced observing capabilities will change the relevance of data sources to a product
	Evaluate GOES R sensor data satisfaction metrics
	Identify GOES R derived follow-on products
Removed Sensors	Assess benefit of survey products to NOAA's mission service areas
	Identify new services/products planned as a consequence of new sensors and integrate them into the NOSIA-II Value Tree
	Identify products that discontinued sensors supported
	Identify replacement (non-legacy) sensors for the product dependent on discontinued sensors
Removed Sensors	Assess changes in product performance for those products dependent on discontinued sensors
	Assess impact of discontinued sensors throughout value tree.