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# **Creating Enterprise Centered Business & Quality Objectives**

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**Integrated Process & Quality**

GENERAL DYNAMICS  
Advanced Information Systems  
Greensboro, NC, USA

# Topics

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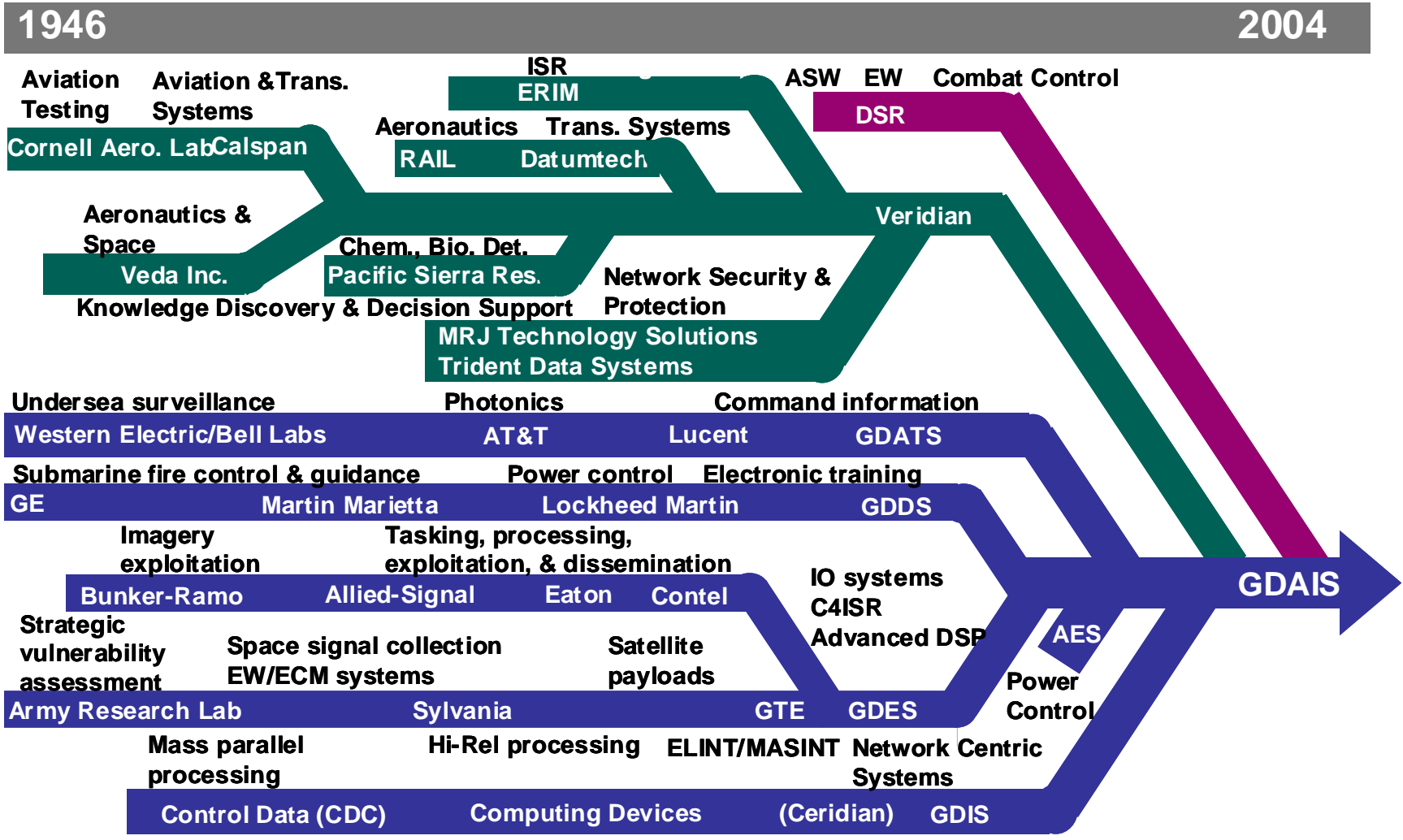
- Company Overview
- Common Process Framework Overview
- Development of Enterprise Business & Quality Objectives
- Lessons Learned
- Next Steps

# Company Overview

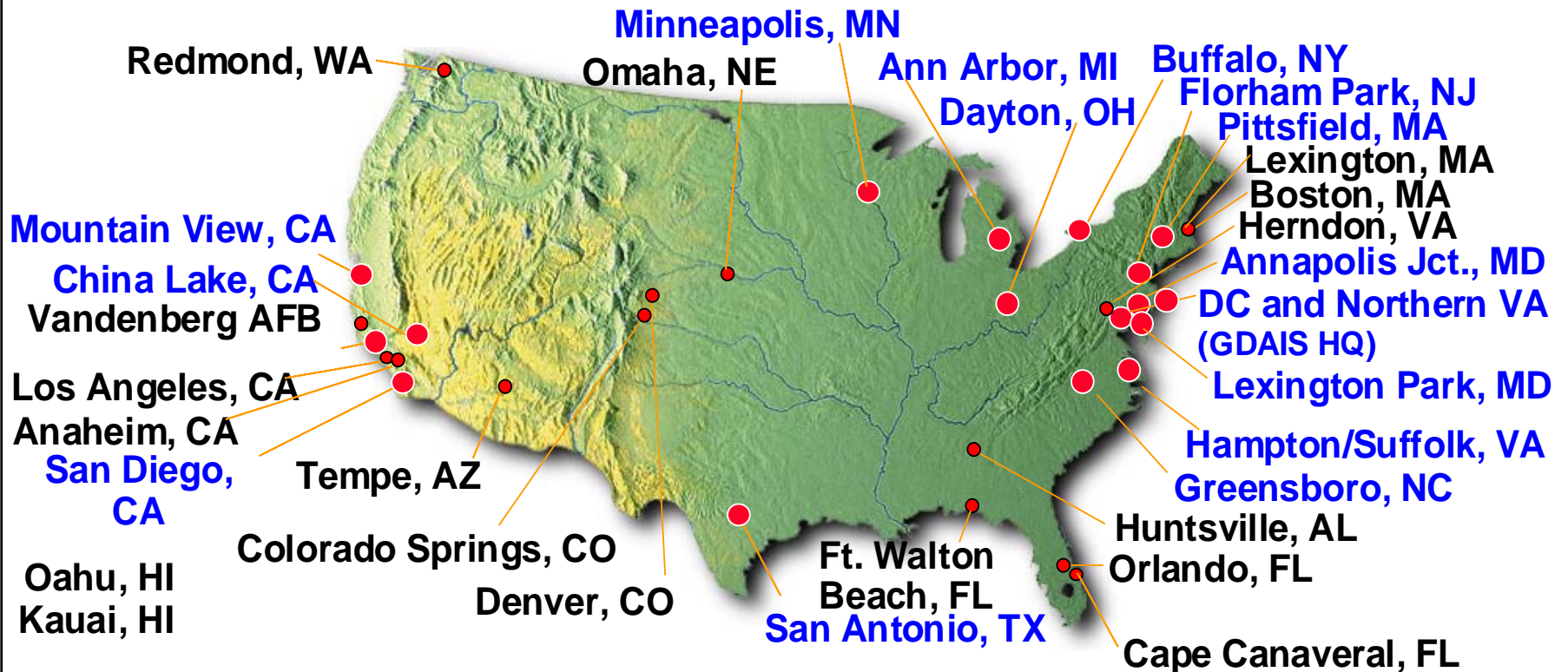
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- General Dynamics Advanced Information Systems (GDAIS), headquartered in Arlington, Va., is an operating unit of the [General Dynamics Corporation](#).
- We are a recognized as a leading provider of transformational mission solutions in command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR).
- General Dynamics has a rich heritage of providing government and commercial customers in the defense, intelligence and homeland security communities with superior customer satisfaction through flawless execution and continual improvement.

# Company Overview



# Company Overview



**Total Employees = 10,000+**

**City names in blue = more than 200 employees**

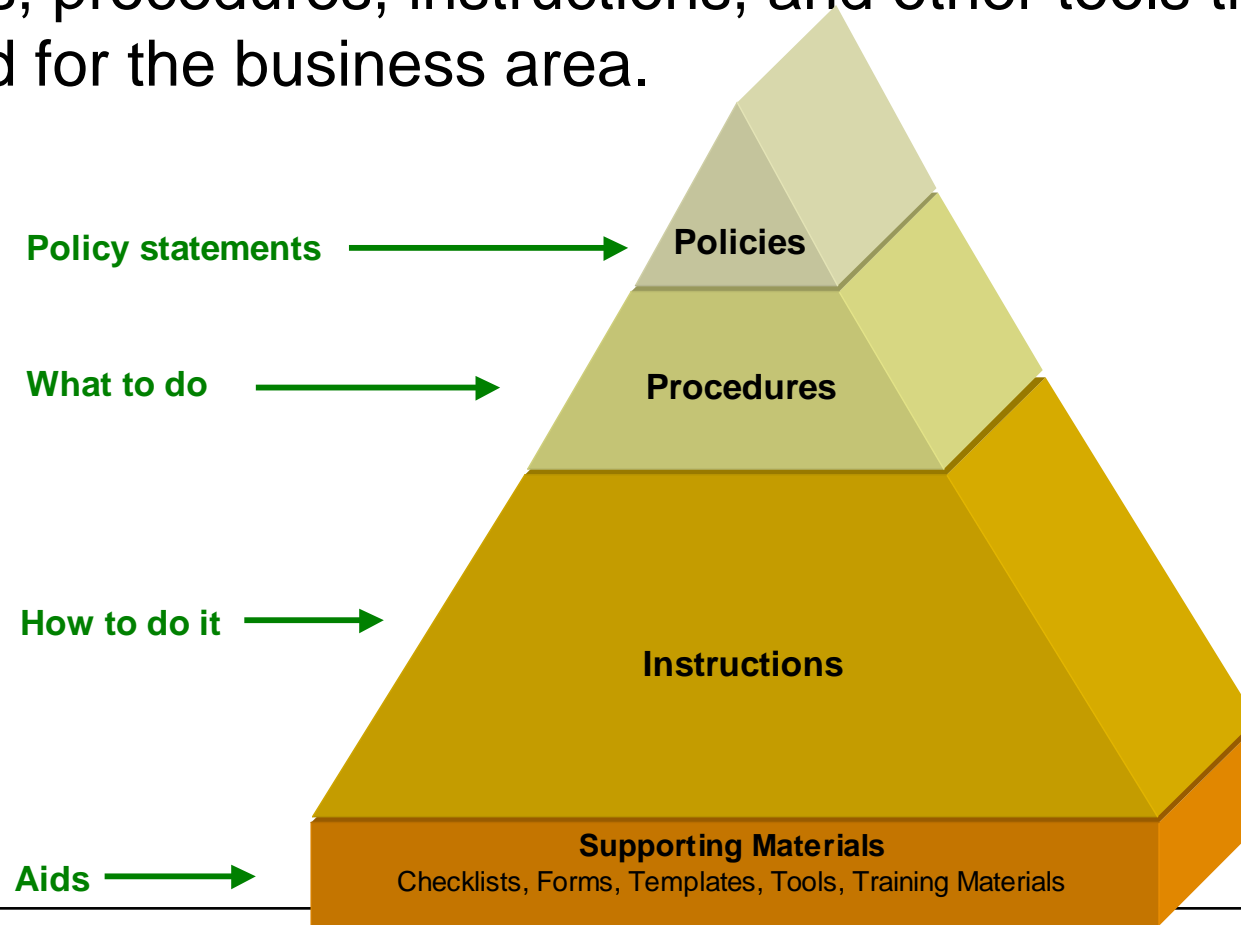
# Common Process Framework Overview

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- To manage such a large organization, GDAIS has defined twenty common business process areas and created a web based common process framework that defines each area.
  - **Business Strategic Planning**
  - **Business Performance, Quality, & Improvement**
  - **Business Development**
  - **Program Performance, Quality, & Improvement**
  - **Technology Development**
  - **Systems & Services Development**
  - **Production**
  - **Services**
  - **Communications**
  - **Contracts**
  - **Environmental, Health, & Safety**
  - **Ethics**
  - **Facilities & Real Estate**
  - **Finance**
  - **Human Resources**
  - **Information Technology**
  - **International Business (Exp/Imp)**
  - **Legal**
  - **Security**
  - **Supply Chain Mgmt**

# Common Process Framework Overview

- The common process framework defines all of the policies, procedures, instructions, and other tools that are needed for the business area.



# Common Process Framework Overview

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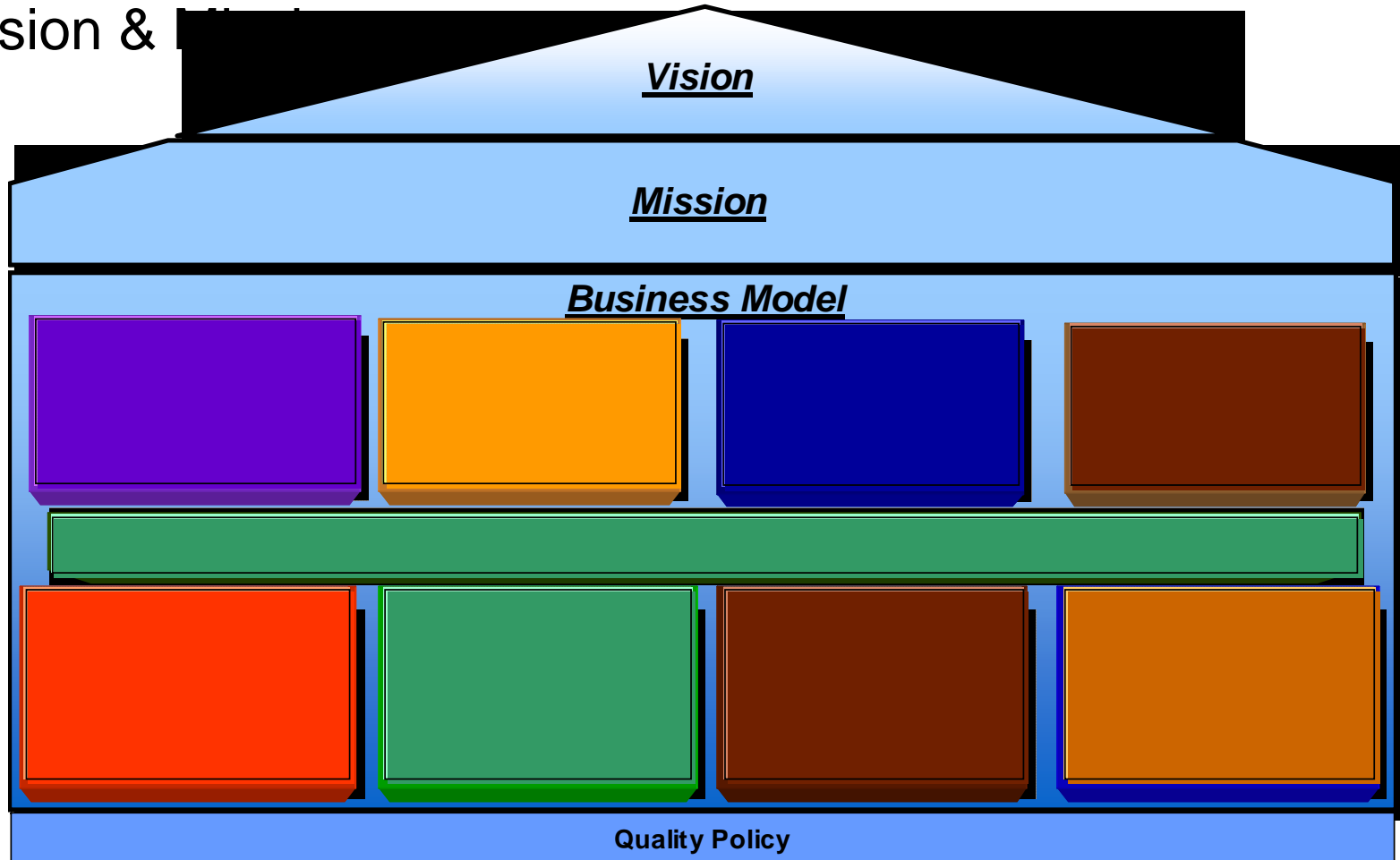
- Process improvement is not unique to any function or discipline.
- Measurement is key to process improvement at GDAIS
- All twenty of the business process areas have measures.
- This amounts to hundreds of measures across the company.
- How does executive management know that the company is on track to meet its goals?
- We need to select measures that are key indicators of the business.

***How are the appropriate Key Indicators selected?***



# Development of Enterprise Business & Quality Objectives

- A Business Model was developed to achieve the GDAIS Vision & Mission

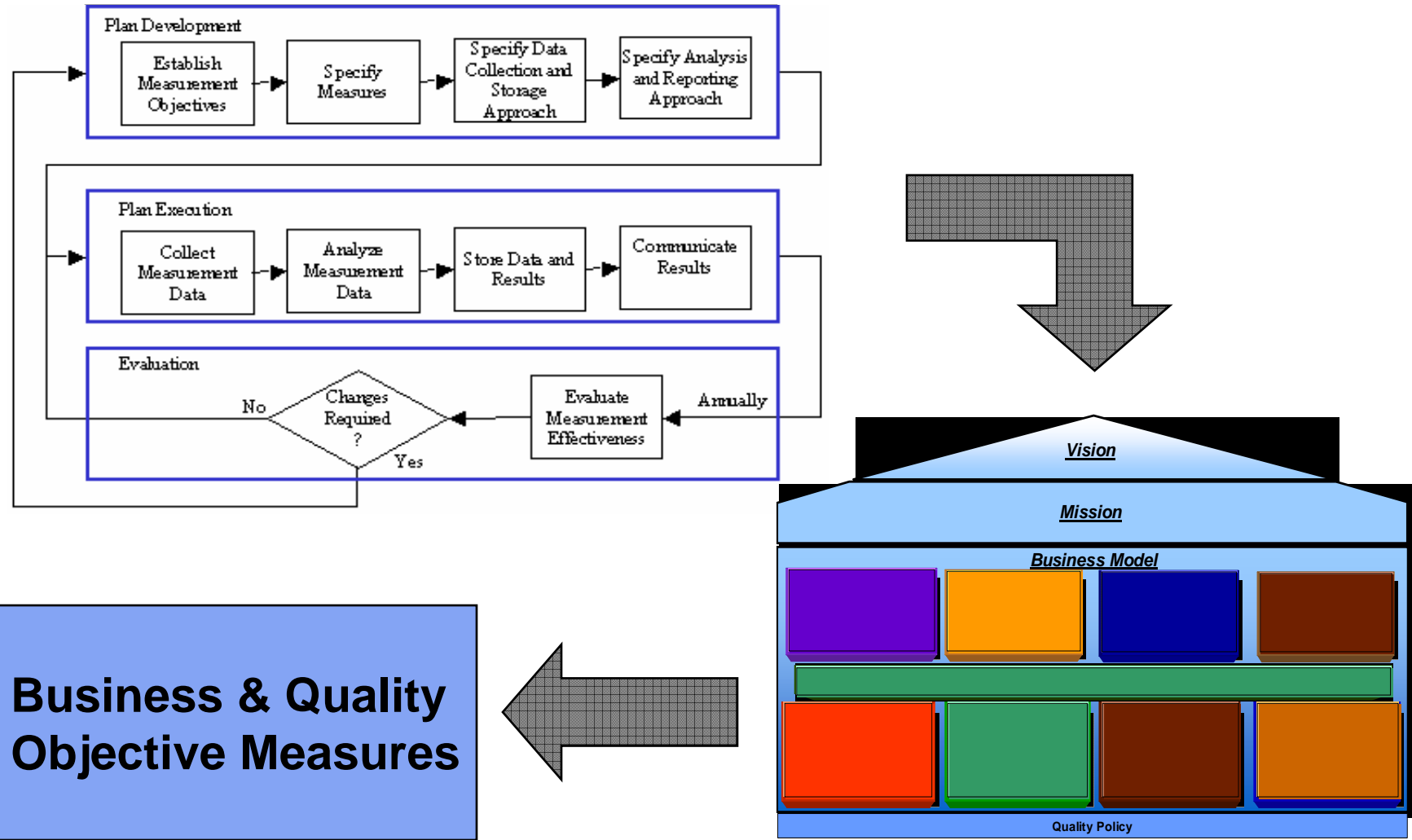


# Development of Enterprise Business & Quality Objectives

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- The GDAIS Vision and Mission rely on achieving the Business Model objectives.
- We have established measures for each of the Business Model objectives.
  - Measures are leveraged from functional measures already in place whenever possible
- A common enterprise measures process was applied to the Business Model to develop and maintain a set of business and quality measures.
  - Supports both ISO 9001:2000 and CMMI requirements
  - Based on the PSM approach

# Development of Enterprise Business & Quality Objectives



# Development of Enterprise Business & Quality Objectives (Example)

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“Continual  
Improvement”

- **Are we improving our operations?**
  - We can measure the indirect cost reductions.
- **Are we improving our processes?**
  - We can measure the external audit results (# & type of findings).
  - We can measure the internal audit schedule. We want to drive the right behavior, so we focus on schedule not the findings.
- **Are we improving our productivity?**
  - We can measure the productivity from the engineering disciplines (hardware, software, & systems)

# Development of Enterprise Business & Quality Objectives

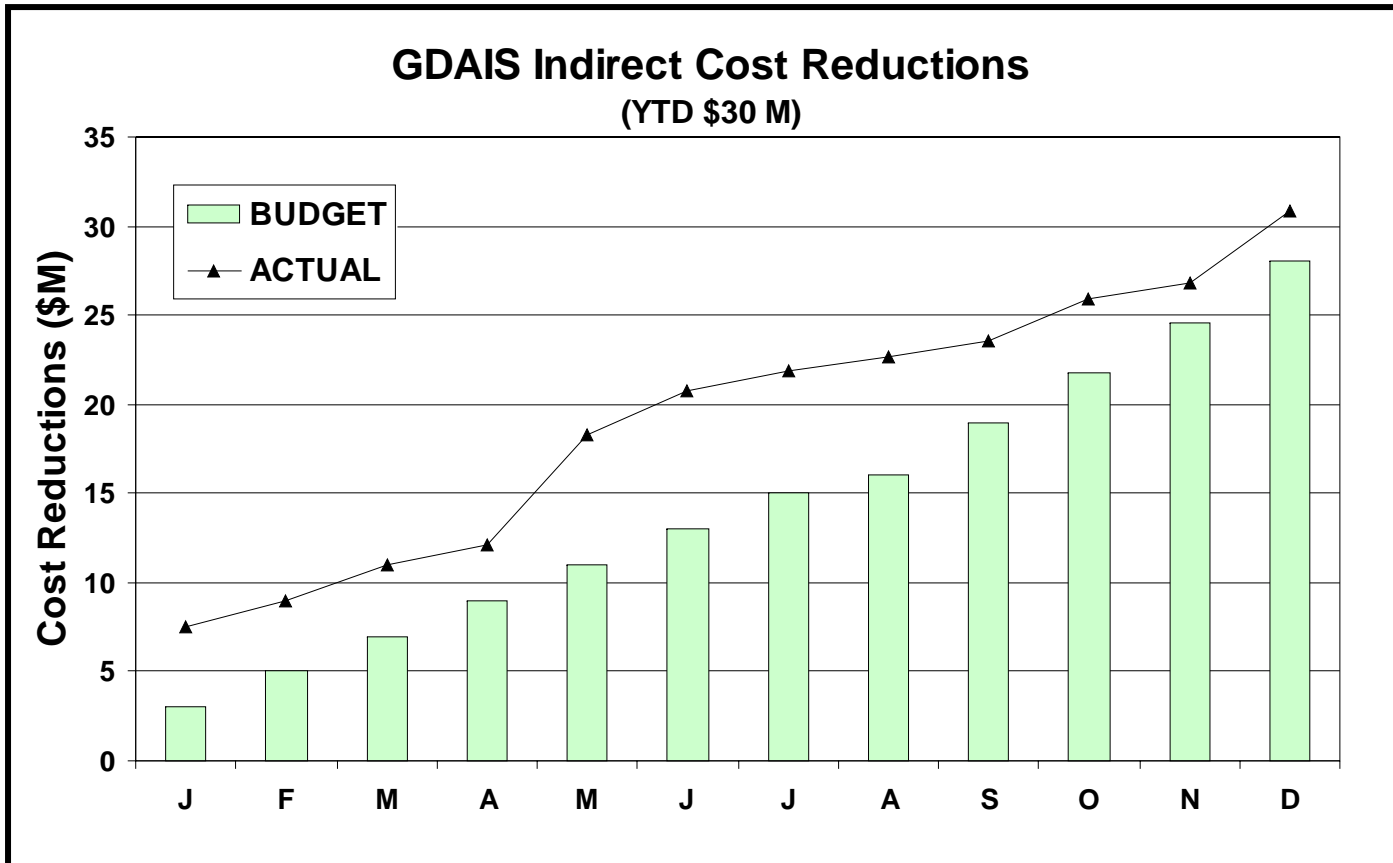
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- GDAIS currently has 37 Business & Quality Objective measures.
- These measures are tracked monthly and reported to executive management.
- The measures are displayed in a stoplight report with backup information on each measure.

Indicator		Owner	Jan	Feb	Mar	Data	Recovery Plan/Comments
<b>Enabler #1</b>							
1	Measure #1	VP/GMs				<a href="#">Data</a>	
<b>Enabler #2</b>							
2	Measure #1	Finance				<a href="#">Data</a>	
<b>Enabler #3</b>							
3	Measure #1	BD				<a href="#">Data</a>	
<b>Processes of Excellence</b>							
4	Indirect Cost Reductions	VP/GMs				<a href="#">Data</a>	
5	External Audit Results	Quality				<a href="#">Data</a>	
6	Internal Audit Schedule	Quality				<a href="#">Data</a>	
7	Hardware Engineering Productivity	Engineering				<a href="#">Data</a>	
8	Systems Engineering Productivity	Engineering				<a href="#">Data</a>	
9	Software Engineering Productivity	Engineering				<a href="#">Data</a>	
<b>Enabler #5</b>							
10	Measure #1	Ethics				<a href="#">Data</a>	
<b>Enabler #6</b>							
11	Measure #1	EHS				<a href="#">Data</a>	
<b>Enabler #7</b>							
12	Measure #1	HR				<a href="#">Data</a>	
<b>Enabler #8</b>							
13	Measure #1	BSP				<a href="#">Data</a>	
<b>Enabler #9</b>							
14	Measure #1	VP/GMs				<a href="#">Data</a>	

Data has been fabricated for illustrative purposes

Indicator	Owner	Measure	Green	Yellow	Red	Specification	AIS	EDIS	IES	MDS	SRS
Indirect Cost Reductions	VP/GM	Against Plan	>= 95%	94% to 90%	< 90%	IPD-INS-1.0.3	Roll-Up	VP/GM	VP/GM	VP/GM	VP/GM



**Return**

Data has been fabricated for illustrative purposes

# Lessons Learned

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- Don't start without support of top level management
- Provide support to organizations in specifying measures and collection methods.
- Expect resistance to documenting measures since it becomes a commitment by the organization to collect and report the information.
- Provide training on the process and how to use measures to improve organization performance.
- Many good program level indicators do not provide useful information when rolled up to the organizational level.
- It is difficult to manage without automation of data collection and analysis.



# Next Steps

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- Continue to develop and refine Business & Quality Objective Measures
  - They are reviewed on a regular basis
  - Several changes have been made – “dynamic”
  - New candidate measures are “prototyped” before becoming operational
- Continue to develop automated data collection and analysis methods
- Proof of utility is when the measures are being used to make operational decisions