

## The Process of Measurement

Return

Translating pure data into organized knowledge, and then into insight or direction.
Guiding decision-makers toward process improvement.

**Measurement Interpretation** 

Measurement **Installation** 

Collecting 1st run of data; testing procedures

Measurement <u>Design</u>

Identifying the context, the reason, and the need for process measurement. Looking ahead to the audience for the data, and their political circumstance. Fully characterize the process, picking the appropriate metric, and setting targets to anchor the analysis.

<u>Assessment</u>

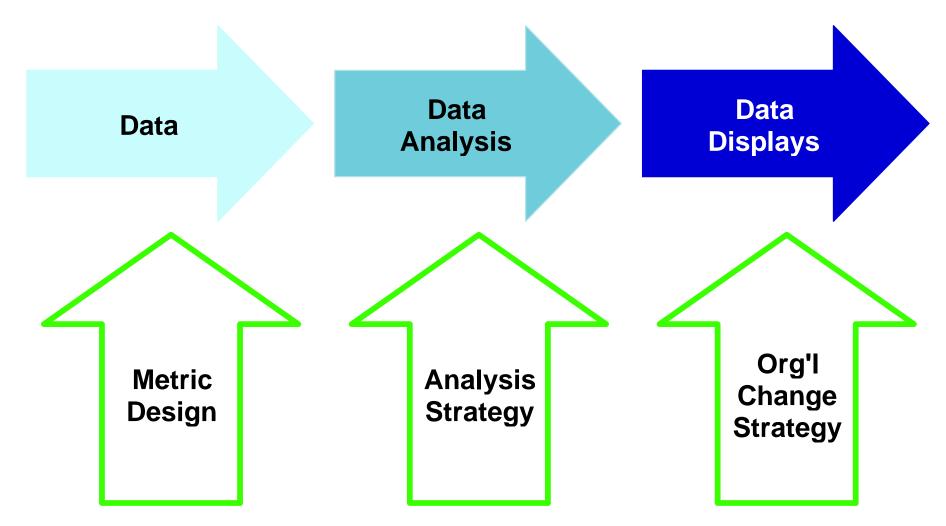
Measurement

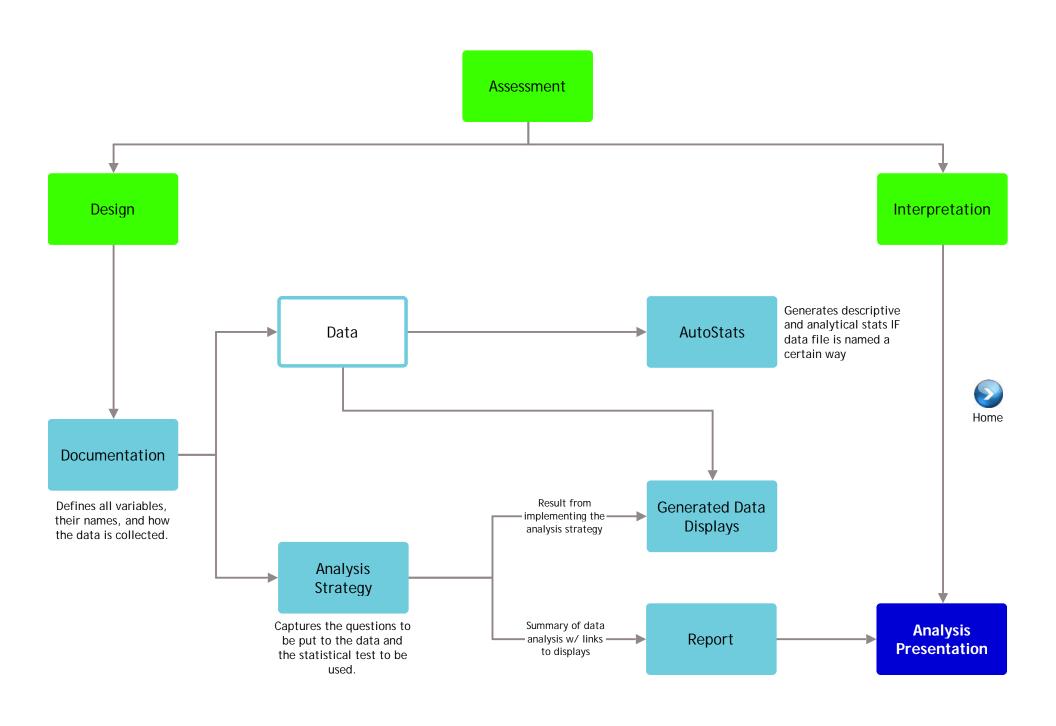
## **The Four Measurement Processes**

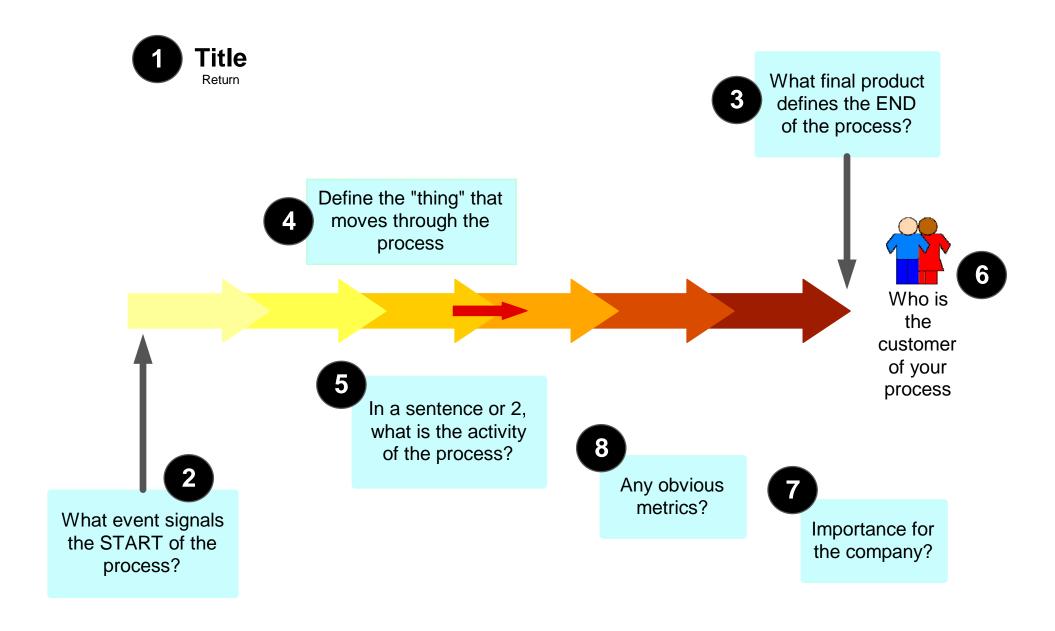
	Inputs	Def of Value	<b>Emotional Outcome</b>	Product Outcomes	Customer	Enabling Resources	
Assessment	• Definition of the process	<ul> <li>Broad support</li> <li>Scope of effort matched by resources available</li> </ul>	<ul> <li>Confidence in charter</li> <li>Safety from risk</li> <li>Trust in the use of data</li> </ul>	<ol> <li>Org'l reason for measurement</li> <li>Identification of the Decision</li> <li>Makers</li> <li>Locate the decision forum</li> </ol>	Metrics Designer		
Design	Familiarity with the process operation	<ul> <li>Reason for measurement</li> <li>Research standards</li> <li>Integration with enterprise level metrics</li> <li>Respects resource constraints</li> <li>Database has explanatory potential</li> <li>Respects the political environment</li> </ul>	<ul> <li>Optimism for implementation</li> <li>Motivation to achieve the defined target</li> </ul>	<ol> <li>Def of process customer</li> <li>Def of a single instance</li> <li>Defined metric(s)</li> <li>Procedures for data collection</li> <li>Proposed target level</li> <li>Data analysis strategy</li> </ol>	Process Operator	Company-wide protocols or conventions	
Installation	<ul><li> Metric definitions</li><li> Database definitions</li><li> Proposed target level</li></ul>	• Ease of use	Acceptance of procedures	Spreadsheet for containing, analyzing, and displaying data     Collection of full data set	Process Participants	Software tools     Company-wide conventions or protocols	
Interpretation	A reasonable run of real data	<ul> <li>Display draws people into decision-making</li> <li>Display is intelligible without statistical sophistication</li> </ul>	<ul><li>Feeling heard</li><li>Treated fairly and realistically</li></ul>	Decision about process improvement investment     Refinements to the metrics or the display     Adjustment in target	Process Owner	Cultural emphasis on being data-driven and thorough	

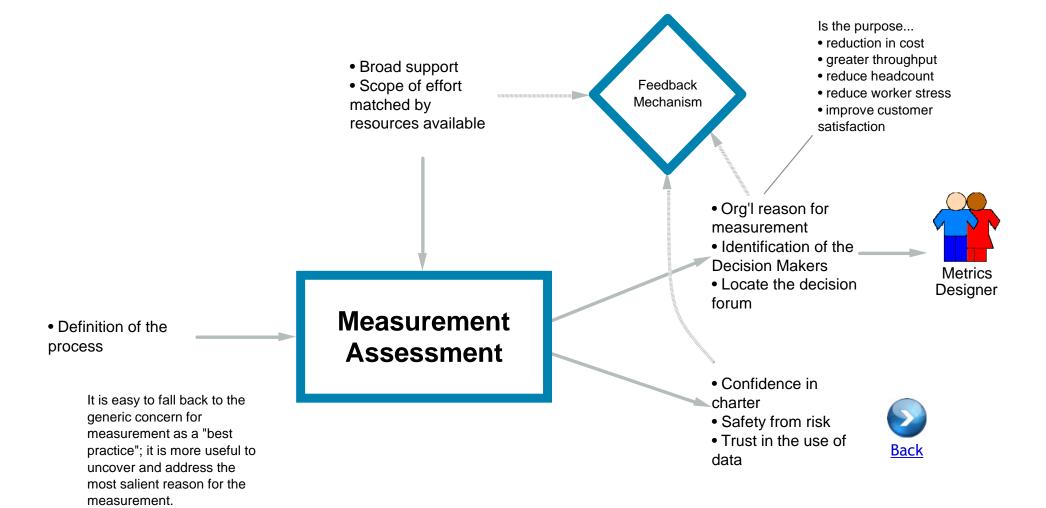
## **Your Course Assignment**

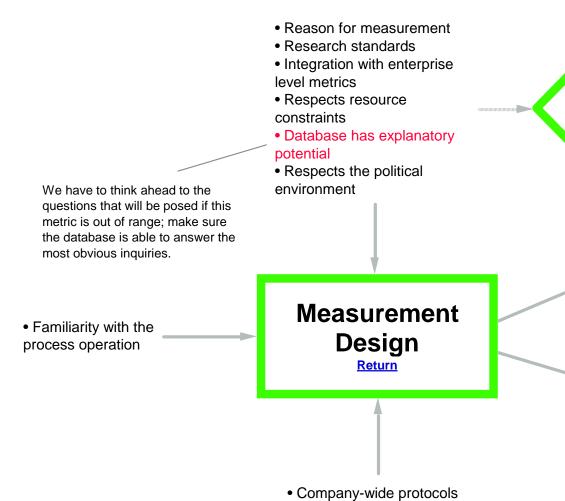
**Return** 











or conventions

These outcomes are typically conceptual or in

outline form only.

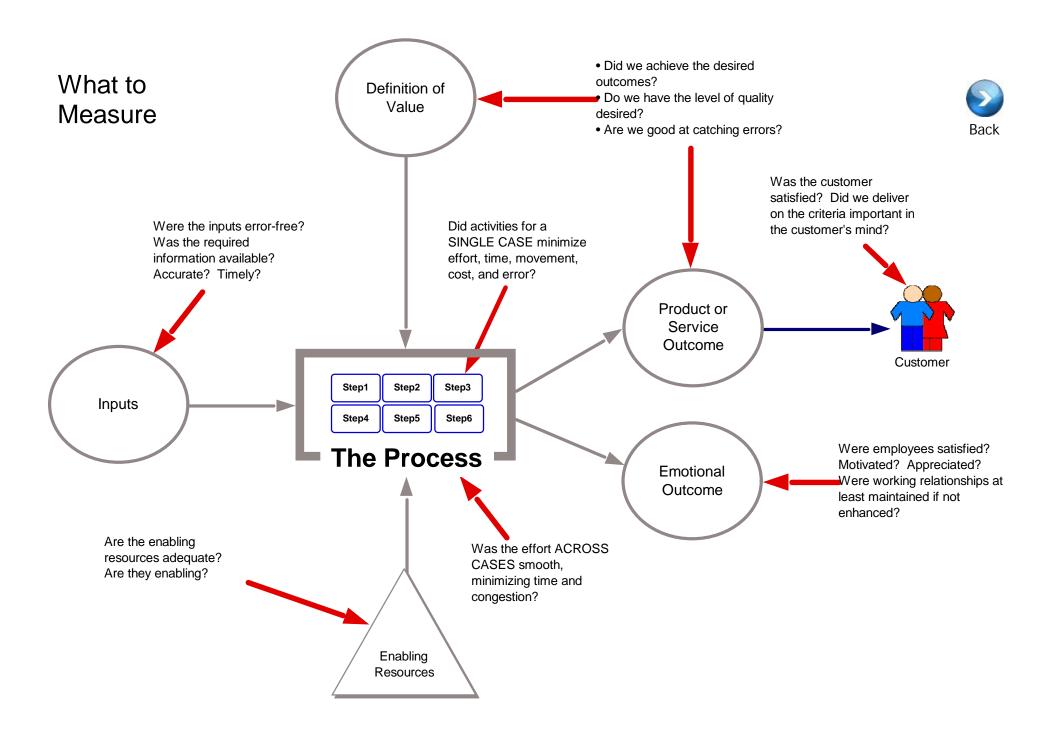
- Def of process customer
- Def of a single instance
- Defined metric(s)

Feedback Mechanism

- Procedures for data collection
- Proposed target level
- Data analysis strategy
- Optimism for implementation
- Motivation to achieve the defined target







## **Structure of Metrics Database**

	IDNUM	Demo1	Demo2	Demo3	Input1	Input2	Step 1	Step 2	Step N	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5
Type of Measure	Unique case identifier	Demographic #1	Demographic #2	Demographic #3	Input #1	Input #2	Process activities #1	Process activities #2	Process activities #N	Outcome Measure #1	Outcome Measure #2	Outcome Measure #3	Outcome Measure #4	Outcome Measure #5
What		Static variables about a case that may provide a way to better understand where errors are located. For example, project performance might be noticeably different for certified project managers vs. home grown managers.			, ·				Measures of the results of the process. Process metrics; measures of focal interest independent of process operations.					
Why	to blend in additional	the causes of process problems. If per		Can compror performance very beginnir	from the	These are the moments in the procedure where significant changes can be made.		published beyond the process team. They are more organiza		organization; th value of the pro	the metrics visible to the rest of the on; they reflect the purpose and e process. They will be referenced ag resources to improvement efforts.			
Examples	Order No, Case No, Visit No., etc.	Shift, worker product line, order, etc.			Erroneous da constantly ch requirements incomplete m	anging s, or	generating co payouts, reco data, assemb	verifying credit ourse content, onciling billings oling materials um content, et	calculating s, entering s, generating	Scrap, returns, stress	rework, worker		gs of quality; ove meliness, volum	

