{Insight how the current context developed, and existing trajectories. Clear and tangible depictions, leveraging effective visual depictions of critical processes and outcomes are particularly valuable here}

Problem:

| Measure/Descriptive Analysis (ﷺ)

(P1)

Predictive Analysis (ﷺ)(

P2

{Insight how the problem is perceived, including what performance improvements are desired; providing input into candidate Objectives for further consideration. Such Objectives are distinct from, but a step towards prescriptive goals.

ノ	Candidate Objectives	Current State Outcomes	Fundamental Bounds	Priority	Candidate Objectives	Current State Outcomes	Fundamental Bounds	Priority
•								

Current State Details:

{Insight into nature of about bounds, priorities, and any inter-relatedness/feedback among above. This should inform descriptive measures of candidate **<u>Utilities</u>** / levers.}







Candidate	Current State	Fundamental	Relative	Candidate	Current State	Fundamental	Relative	l
Utilities / Levers	Levels	Bounds	Impact	Utilities / Levers	Levels	Bounds	Impact	Fu
								{E
								լ⊏ Tr
								pc

Relational Connections:

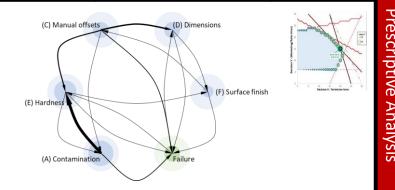
{Insight into the impact that candidate Utilities / Levers, have on the Priority 1 (focal) Objective; I.e. Connections. This should include descriptions of any non-linearities, uncertainty, effect lags and possible O-I feedback}



Root-Cause map	ping: Grinding	Material	Man	1
	Grinding t3 conditions	Surface finish t2	Grinding wheel setup	ķ
	Grinding wheel	Hardness t3	Contamination	Failure
x	Coolant concentration 12	Spindle	Manual offsets t2	Tanare
As per Blackbelt Ribbon Add-in	Wheel dressing ti	Clamp & locator	Dimensions	
Dr. Elliot Bendoly	Method	Machine	Metrics	

Manifested System Dynamics:

(Manifest a depiction of any nuanced interdependencies not yet captured, with emphasis on any critical levels of risk / uncertainty of impact, constraints, lags and feedback. Combined-issue constraints (e.g. fixed pie, critical ratios, etc.) often point to I-I and feedback mechanisms. Causal Loop Diagrams should be presented if I-I or O-I feedback mechanisms are critical}



Explicated Decisions / Actions / Countermeasures:

{Where possible, validate analytically (Explicate) optimal levels of key and leverageable Utility factors, outlined earlier; or specific countermeasure plans deemed relevant to shifting the system towards an improved state. Projected level of Priority 1 Objective upon ideal implementation of these}

Goal:

{A reiteration of where the Priority 1 Objective can rationally be taken. Description of timing, and short-vs. long-term expectations on the approach of that Goal in terms of changing operational conditions and possible non-linear returns to effort}

Future State:

(Expectations regarding the post-implementation state should go beyond just the approach towards the Priority f 1 Goal. Tradeoffs expected with regards to other candidate Objectives should be outlined, as well as shifts in process bottlenecks and possible unintended consequences suggested by inherent risk to proposed changes. Any anticipated next stage target Objectives, possibly part of the lower Priority set outlined here, can also be detailed; This is a key opportunity to Scrutinize the prescription posed, and can point to a return to some earlier assumptions }

Sustain / Requirements for Control:

(Once implemented, how will improvements be measured, and how will checks to the maintenance of these acquired gains be put in place? What safeguards supporting further continuous improvement will be implemented?}