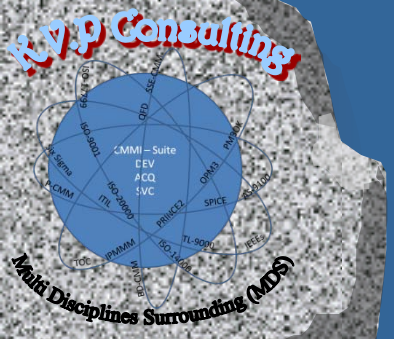
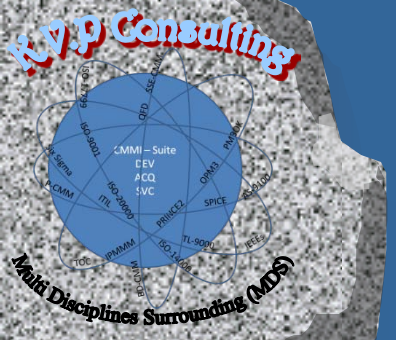


Lesson Learned from Pilot Implementation of Organizational Performance Management (OPM) Process Area

Monday Half-Day Tutorial



Specific Goal and Practice Summary

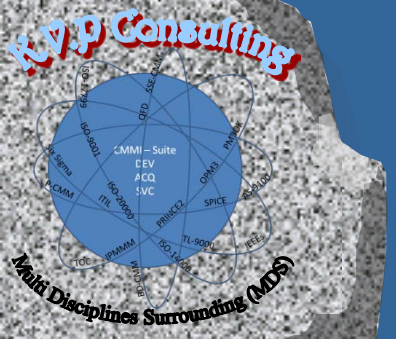
- SG 1 Manage Business Performance
  - SP 1.1 Maintain Business Objectives
  - SP 1.2 Analyze Process Performance Data
  - SP 1.3 Identify Potential Areas for Improvement
- SG 2 Select Improvements
  - SP 2.1 Elicit Suggested Improvements
  - SP 2.2 Analyze Suggested Improvements
  - SP 2.3 Validate Improvements
  - SP 2.4 Select and Implement Improvements for Deployment
- SG 3 Deploy Improvements
  - SP 3.1 Plan the Deployment
  - SP 3.2 Manage the Deployment
  - SP 3.3 Evaluate Improvement Effects

Tutorial Leading Concept

Organizational Performance Management (OPM) purpose is to proactively manage the organization's performance to meet its business objectives. In Maturity Level 5 the organization is expected to continually improve its processes (methods) and deliverables (systems, software, services and acquisitions) based on a quantitative understanding of its business objectives and performance needs.

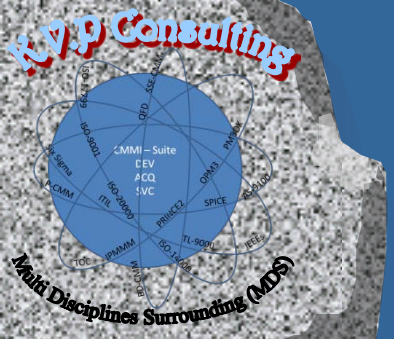
Some Questions
(from first case study)

- Can we justify a tool with OPM
- How to do it

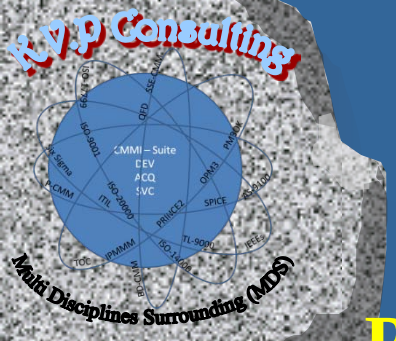


Some Questions
(from second case study)

- We have only financial business objectives
- Our PPMs dose not provide PMs practical insights
- We are lacking a system level insights
- We don't know how to map and connect our objectives to quantitative targets at process / deliverable level



Case Study #1
Requirements Analysis and Management



Process ROI

Project Idea and Proposal Preposition Development

- If an average developer day cost is ~7000
- The total Program effort was 10220 day (100%)
- The testing phase was 1480 day (14.5%)
- Defect that are the result of documentation are 69% of all defects

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- However to add 100 review days in the static tests and another 20 of code inspection will end with the cost of 2100000

- And still we have saved at least 3080000 (440 days)
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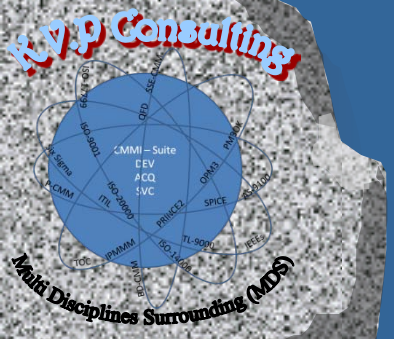
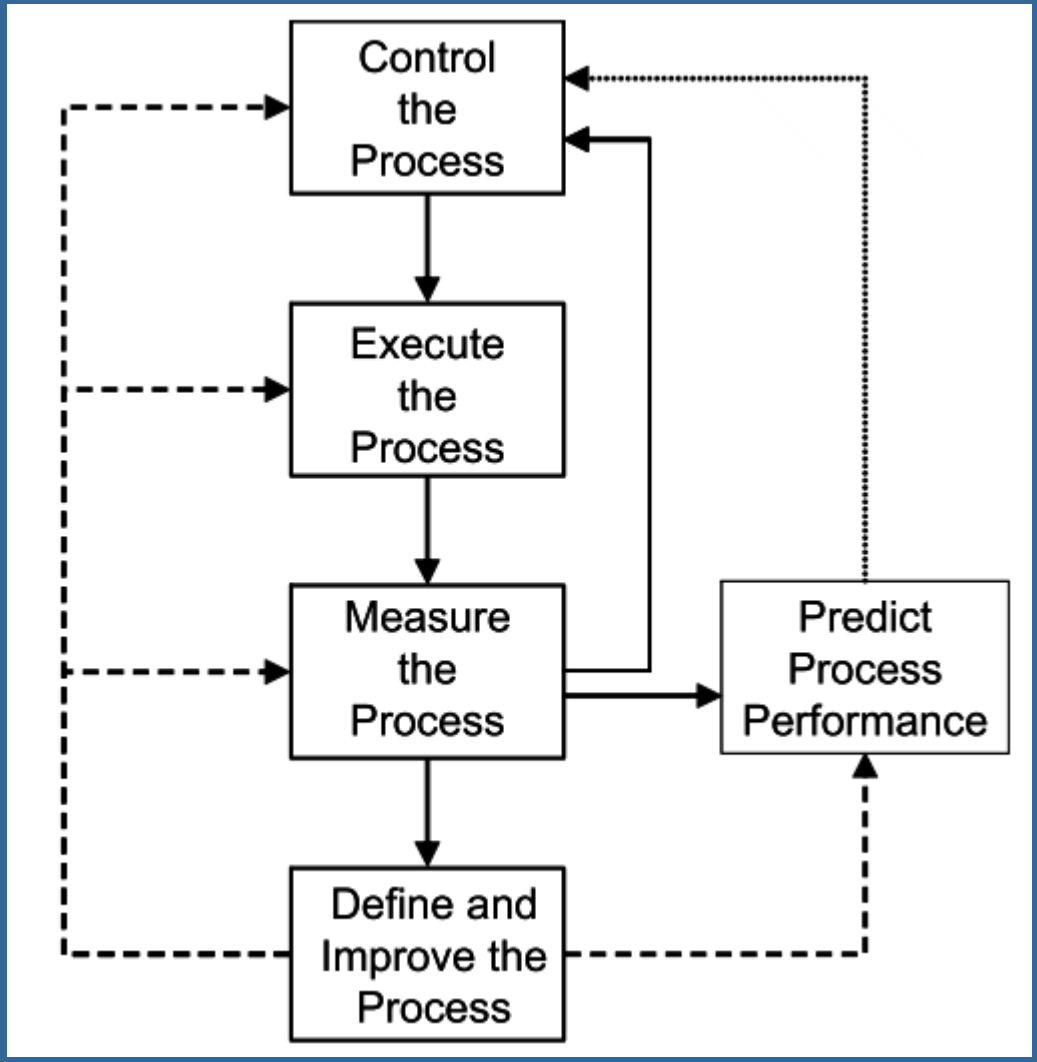


Definition of Process

- A set of interrelated activities, which transform inputs into outputs, to achieve a given purpose.

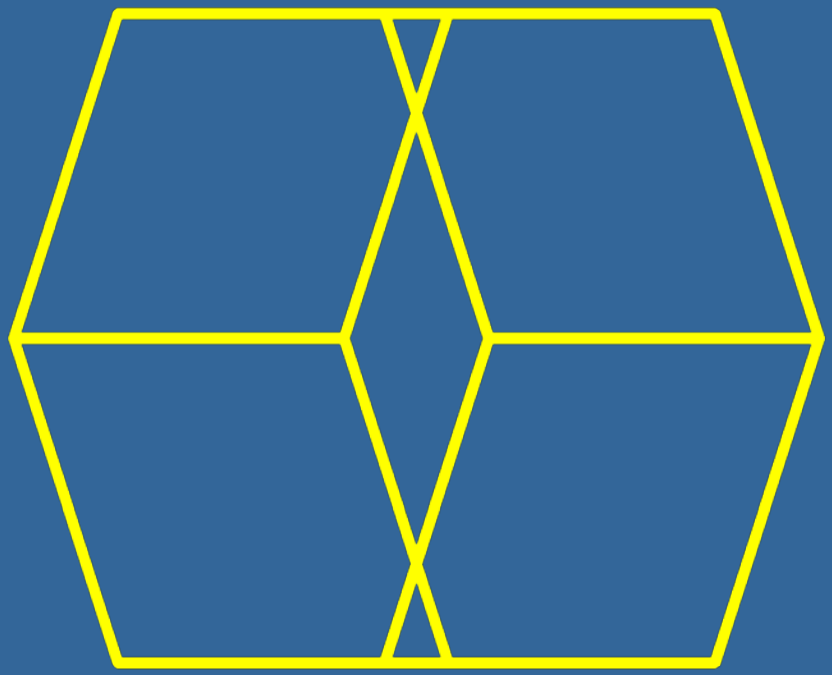
Process Control



Process Levels and Dimensions

Architected and Improved Process

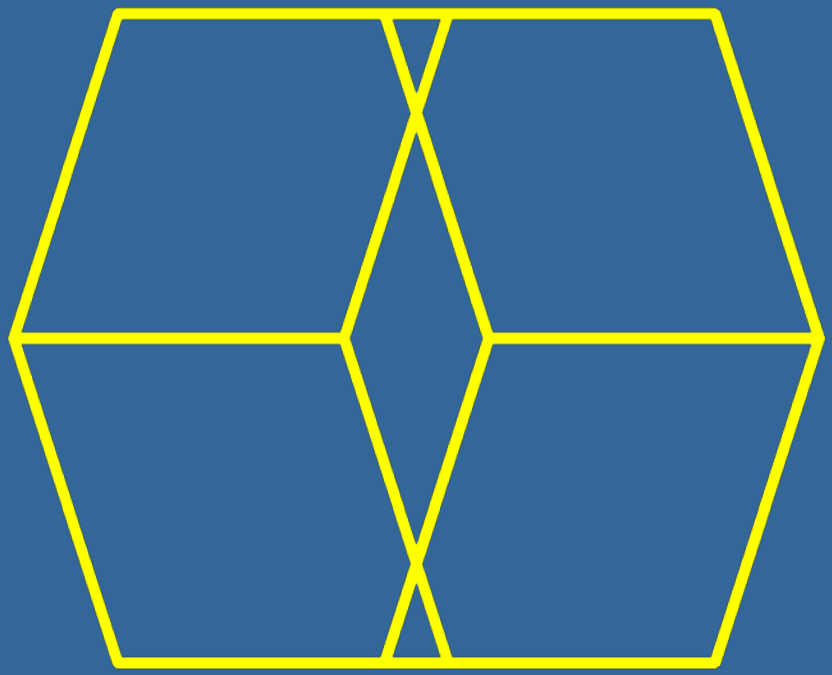
- Objectives
- Structured
- Monitored / Measured
- Effective / Efficient
- Process Interfaces and Integration in Lifecycle
- Prioritize and Balance Resource Utilization within Larger Context



Suggested Measures

Architected and Improved Process

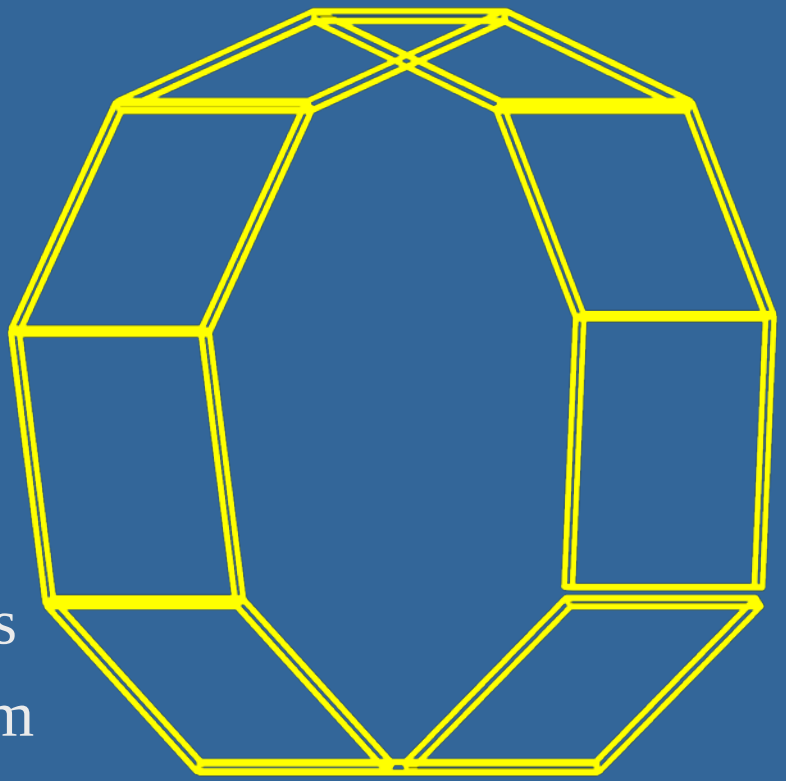
- Process productivity
- Process resources utilization effectiveness
- Process resources utilization efficiency
- Meeting the process objectives
- Other processes interfaces efficiency
- Process related defects density



Process Levels and Dimensions

Operationally Optimized Process

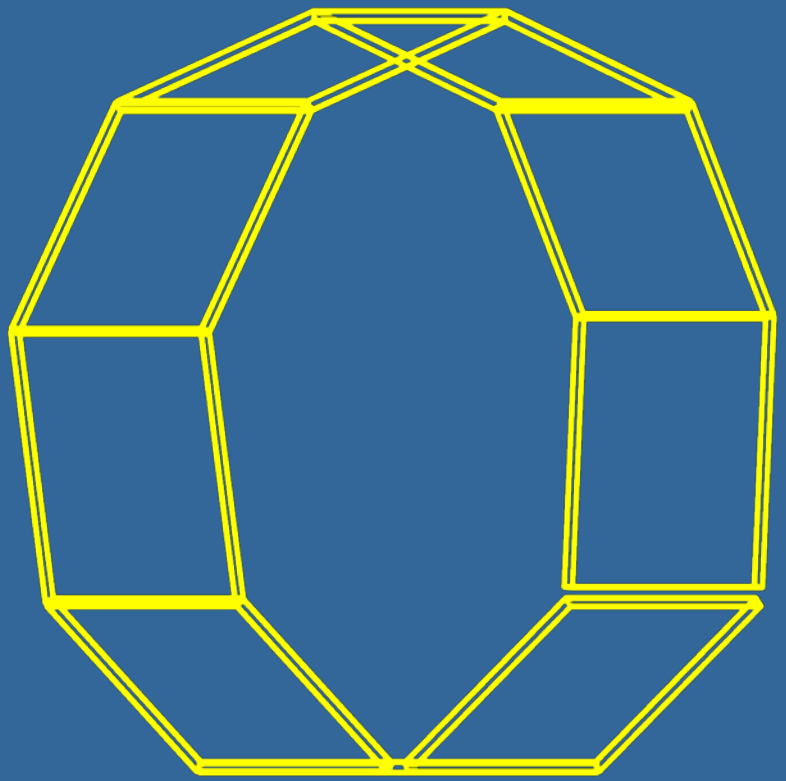
- Known Capability and Stable
- Defined Ingredients
- Known Critical Elements
- Meeting Objectives
- Controlled Interfaces
- Responsive / Modifiable
- Resilience / “Agile”
- Relevant ‘What If’s Scenarios
- Accepted Tolerance / Freedom Boundaries
- Predictable Outcomes

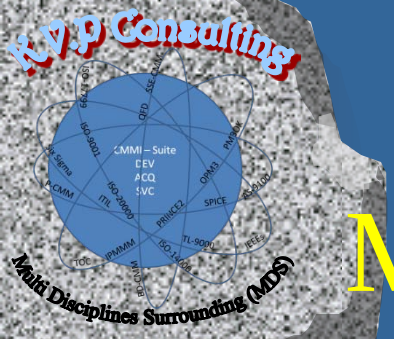


Suggested Measures

Operationally Optimized Process

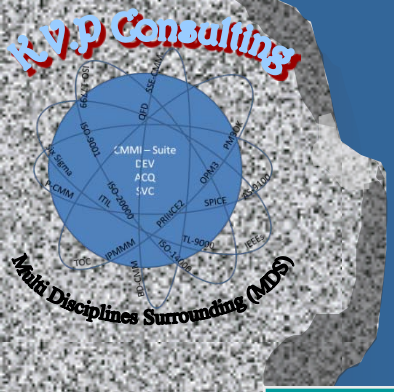
- Influence of Critical Elements on process output
- Process resources utilization ‘What If’s Scenarios
- Process elements capability
- Quantitative definition of process ingredients





Measuring Process Performance

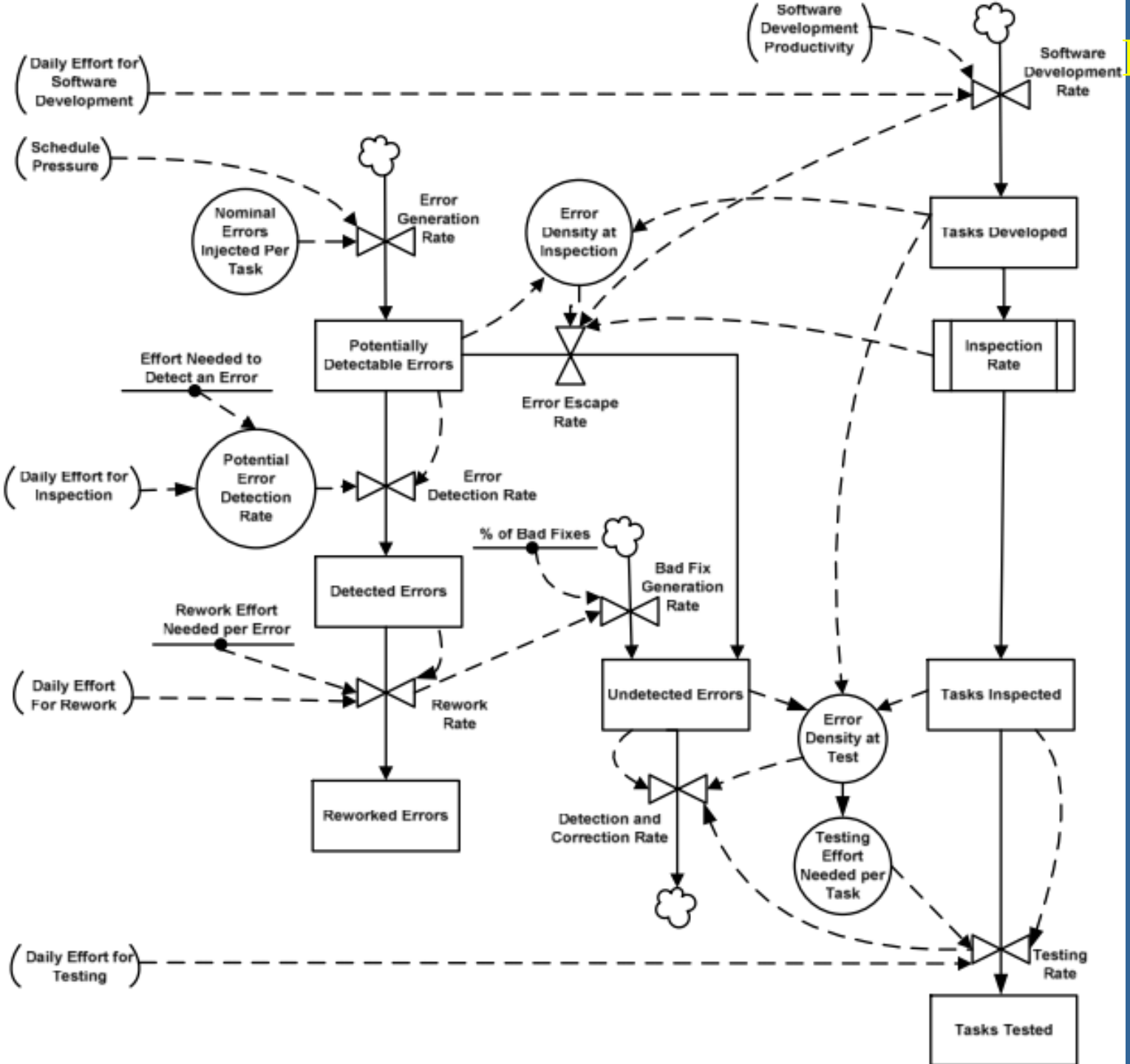
- Key Questions
  - What is the current performance?
  - Is this value "good"?
  - Is it changing?
  - How can I make the value “better”?
- Candidate Attributes
  - Definition (completeness, compatibility)
  - Usage (compliance, consistency)
  - Stability (repeatability, variability)
  - Effectiveness (capability)
  - Efficiency (productivity, affordability)
  - Predictive Ability (accuracy, effects of tailoring and improvements)

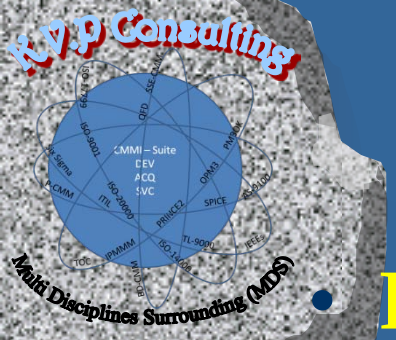


Some Examples

Goal	Measure
Completeness	The number of process elements added, changed, and deleted during tailoring.
Compliance	Number of discrepancy reports generated by Quality Assurance audits
Stability (volatility)	The number of process elements changed within a specified time interval.
Effectiveness	Product quality
Effectiveness	Defect leakage to subsequent phases
Efficiency	Productivity (or production coefficient)
Efficiency	Rework as a fraction of total effort
Predictability	Probability distribution for an estimated quantity or related population statistics

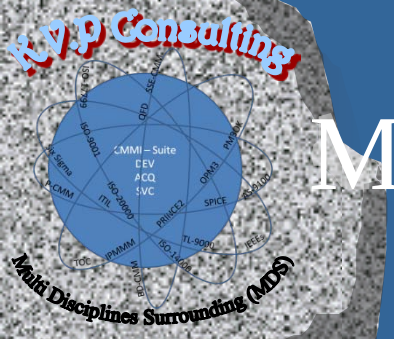
Relationships for CoQ





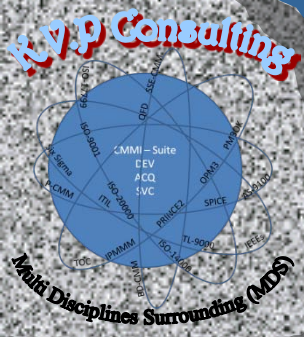
Process Quality Audits and Progress Check Calibration

- As for today the organization is managing its programs as large and complex programs and need to comply with more than just one quality standards in many disciplines (e.g. HW, optics, software) and use large groups of internal and external assessors that perform implementation checks, progress checks, readiness reviews and formal appraisals.
- These assessment teams are typically composed from groups of very experienced and professional individuals that have the best knowledge in their professional domain but not necessarily on how to conduct an efficient and effective appraisal which provide meaningful results
- The combination of the effort and expected resources increase the risks on qualification of auditors, domain knowledge, and calibration of results and findings effectiveness



Main Steps for Process Improvement

- During our analysis and planning, we were able to identify improvement targets in main lifecycle areas such as
  - operations,
  - information,
  - governance,
  - people
  - organizational structure,
  - portfolios,
  - project execution,
  - finance.
- And as in core process that are critical to the system success such as stakeholder management, technical interfaces and integration.

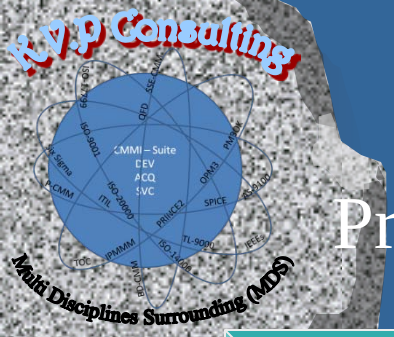


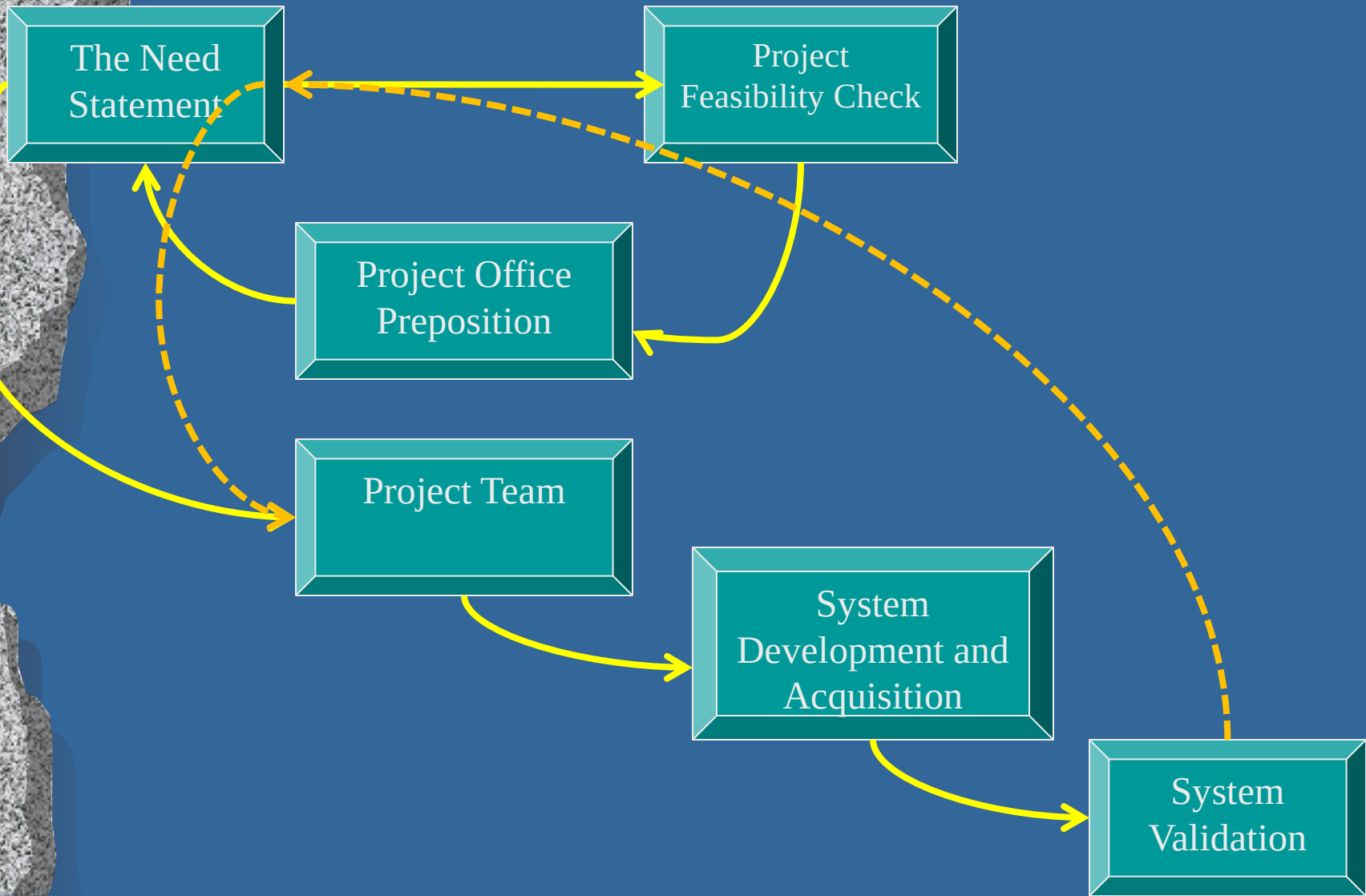
Organizational Background and Process ROI

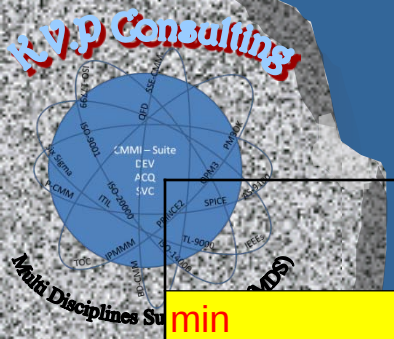
- **Quality Audits and Progress Check Calibration**
  - By measuring the following attributes, we were able to increase usability of the process and progress checks by 47%, and quality of deliverables by 37%
    - Role based profile and criteria
    - Calibration mechanism and criteria
    - Evaluation mechanism and criteria
    - Leveling the different quality engineers and ‘auditors’
    - Flowing specific trainings (on different levels) as personal development and qualification criteria
    - Listing specific performances as indicators for leveling justifications
    - Structuring the different audits and reporting guidelines in a single mandatory to follow process,

Process

Project Idea and Proposal Preposition Development





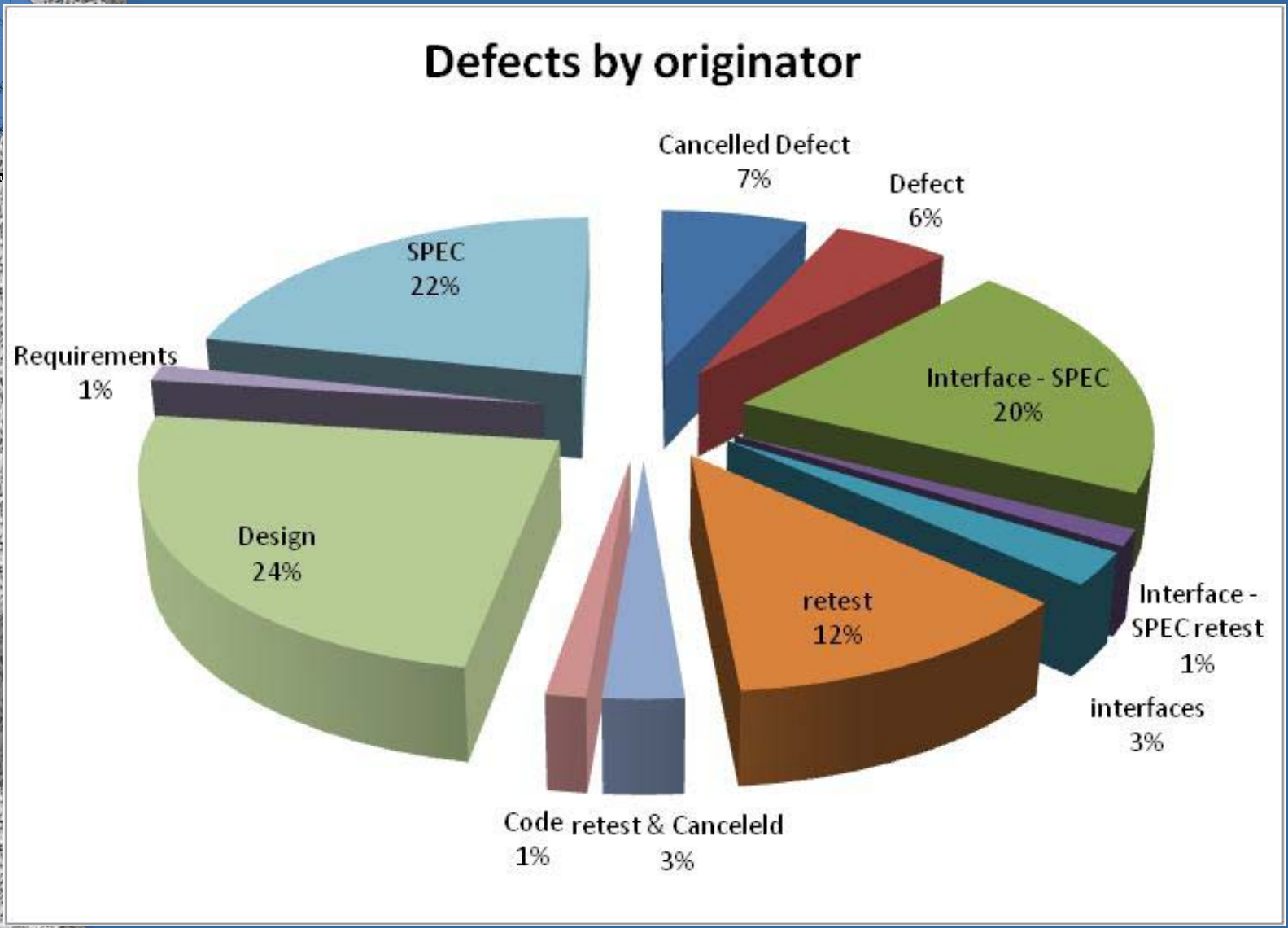


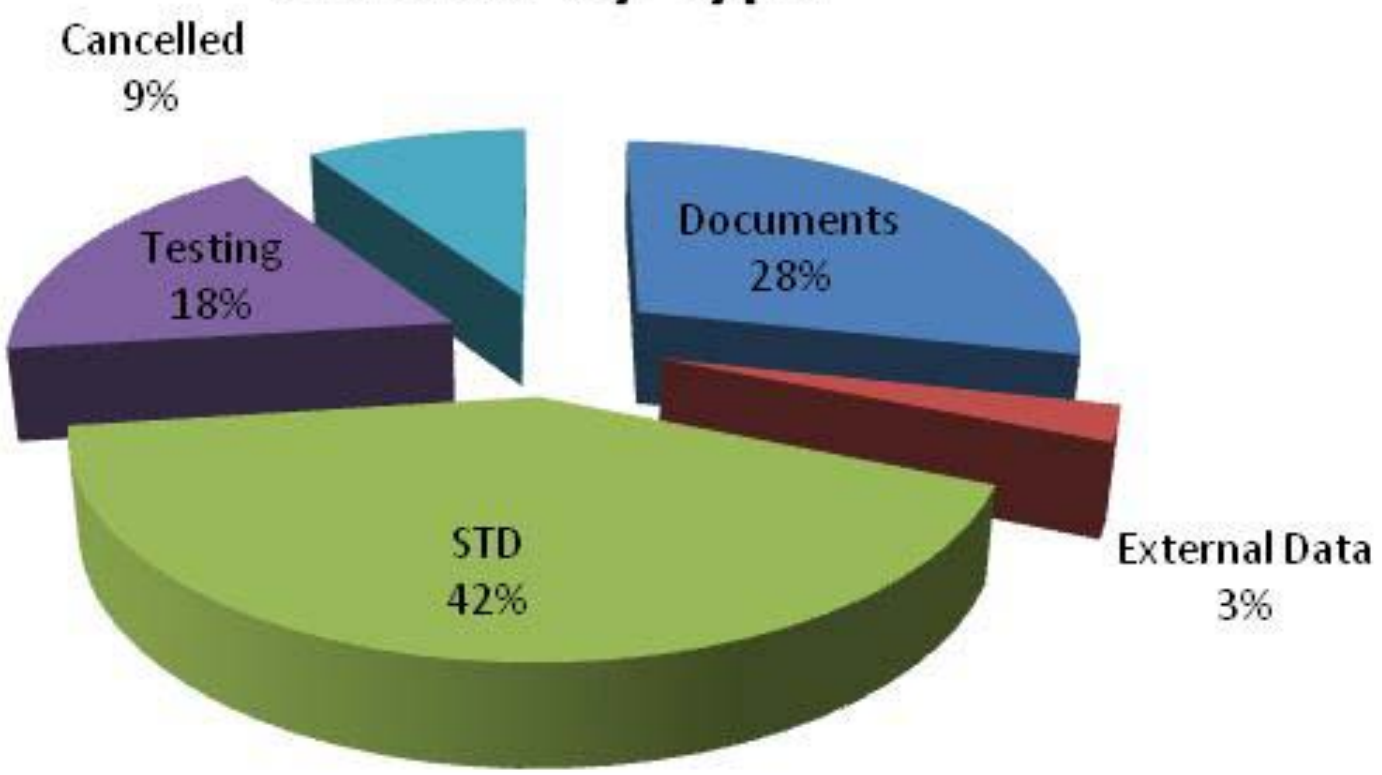
Center	
min	0%
max	100%
ave	50%
sample Projects	104
% From ORG	100.00%
Sample Practices	19629
% From Sample	100.00%
is 0	2649
% of is 0	13.50%
>4	9147
% of >4	46.60%
<4	7828
% of <4	39.88%
is 4	2654
% of is 4	13.52%
>6	4818
% of ≥6	24.55%
mean	#NUM!
median	4
mode	8
VAR	7.279

Areas

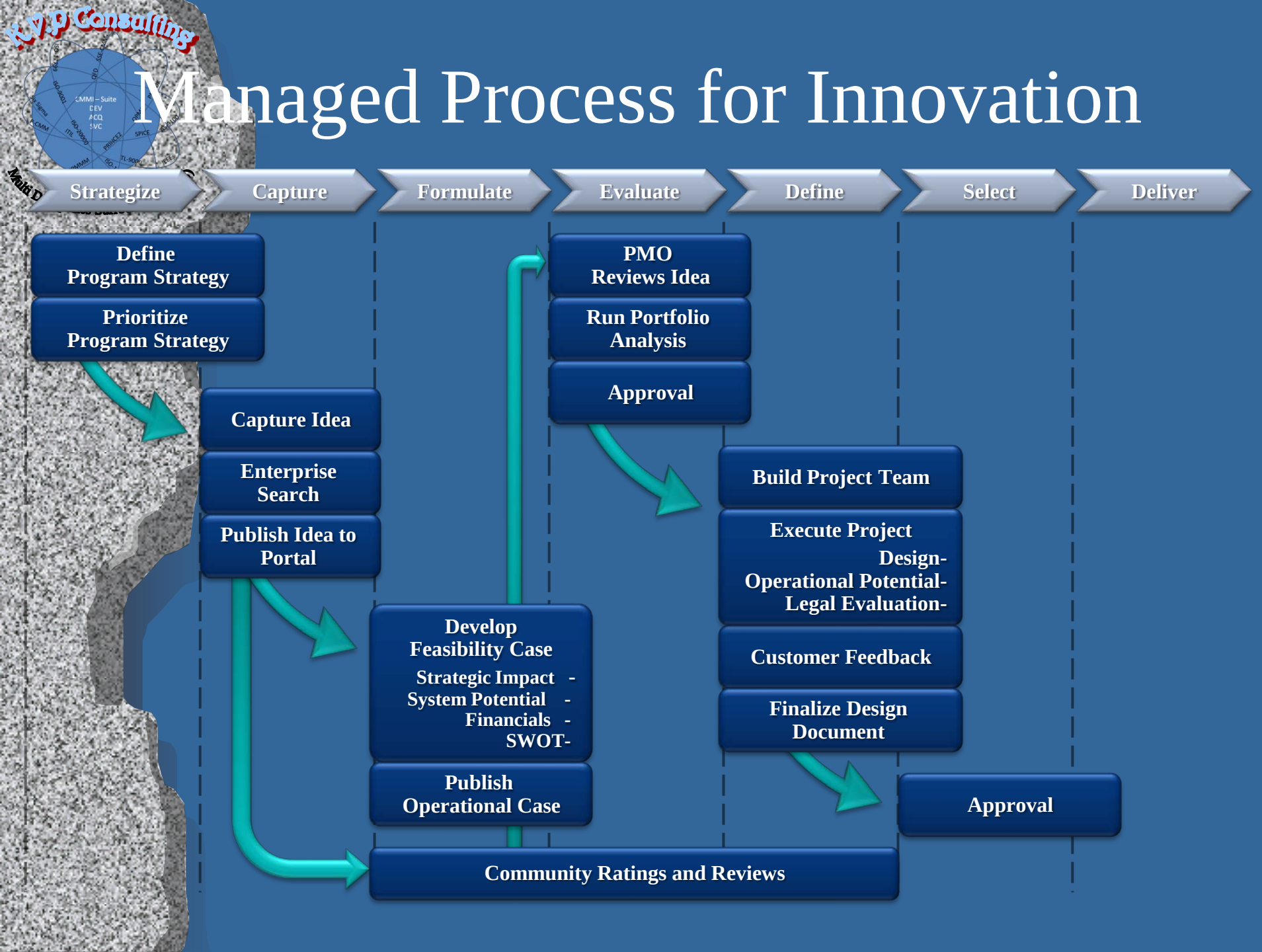
	A1	A2	A3	A4	A5	A6	A7
min	0%	0%	0%	0%	0%	0%	0%
max	100%	100%	100%	100%	100%	100%	100%
ave	50%	50%	37.5%	62.5%	50%	50%	75%
sample Projects	22	6	3	13	23	13	24
% From ORG	21.15%	5.77%	2.88%	12.50%	22.12%	12.50%	23.08%
Sample Practices	3733	957	647	2069	4961	2914	4348
% From Sample	19.02%	4.88%	3.30%	10.54%	25.27%	14.85%	22.15%
is 0	526	127	154	195	914	378	355
% of is 0	14.09%	13.27%	23.80%	9.42%	18.42%	12.97%	8.16%
>4	1575	476	213	1092	1850	1413	2528
% of >4	42.19%	49.74%	32.92%	52.78%	37.29%	48.49%	58.14%
<4	1626	347	322	705	2358	1165	1305
% of <4	43.56%	36.26%	49.77%	34.07%	47.53%	39.98%	30.01%
is 4	532	134	112	272	753	336	515
% of is 4	14.25%	14.00%	17.31%	13.15%	15.18%	11.53%	11.84%
>6	779	211	82	579	775	733	1659
% of >6	20.87%	22.05%	12.67%	27.98%	15.62%	25.15%	38.16%
mean	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
median	4	4	4	5	4	4	6
mode	2	6	0	6	0	6	8
VAR	7.058	6.898	6.750	6.853	6.654	7.142	7.265

A.N.P Consulting
Multi Disciplines Sum

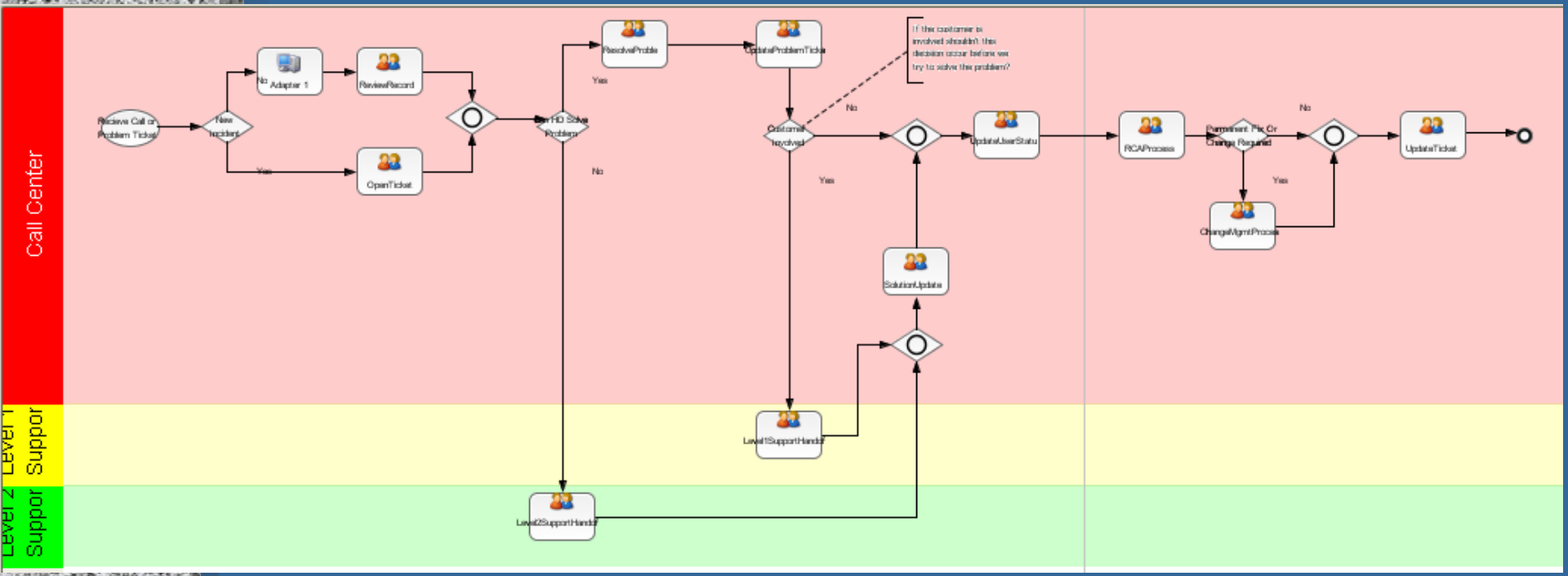



Defects by Type
Cancelled
9%
Testing
18%
Documents
28%
STD
42%
External Data
3%

Managed Process for Innovation



Case Study


Call Center
Level 1 Support
Level 2 Support
Receive Call or Problem Ticket
New Incident
No
Adapter 1
ReviewRecord
Yes
OpenTicket
Can HD Solve Problem
Yes
ResolveProble
No
UpdateProblemTicke
Customer Involved
No
Yes
If the customer is involved shouldn't this decision occur before we try to solve this problem?
UpdateUserStatu
Level1SupportHandoff
SolutionUpdate
Level2SupportHandoff
RCAProcess
Permanent Fix Or Change Required
No
Yes
ChangeMgmtProcess
UpdateTicket

Case Study

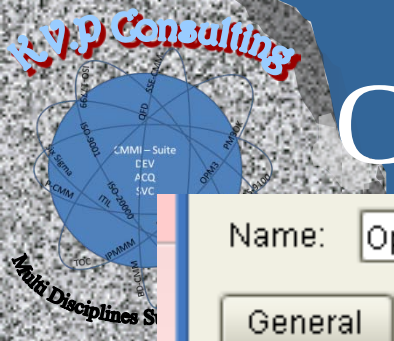
General | Fields | Simulation

Dataslot: AllDataslots

Name	Type	Label	Editable	Required
HDResolution	Boolean	H d resolution	✓	
ScheduledDate	Date	Scheduled date	✓	
Attachments	Document	Attachments	✓	
CustomerConta...	String	Customer conta...	✓	
CustomerName	String	Customer name	✓	
Description	String	Description	✓	
EstimatedDurat...	String	Estimated durat...	✓	
Installation	String	Installation	✓	
Skid	String	Skid	✓	
TicketPriority	String	Ticket priority	✓	

Dataslots

Case Study



Name: OpenTicket

General | Fields | Simulation

Scenario: (default)

Work Time: 2 hours ...

Randomize duration using: Normal Distribution (StDev=(none)) ...

Resources

Name	Value	Unit	Cost per unit	Threshold

Modify...

Reset

OK | Cancel | Help

Case Study

General | Fields | Simulation

Scenario:

Work Time:

Randomize d

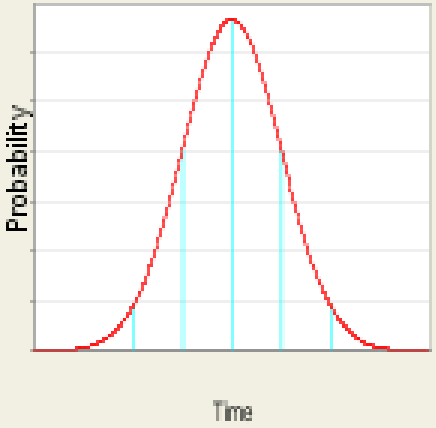
Resources

Name

Modify...

Reset

Distribution of Probability



Type: Normal

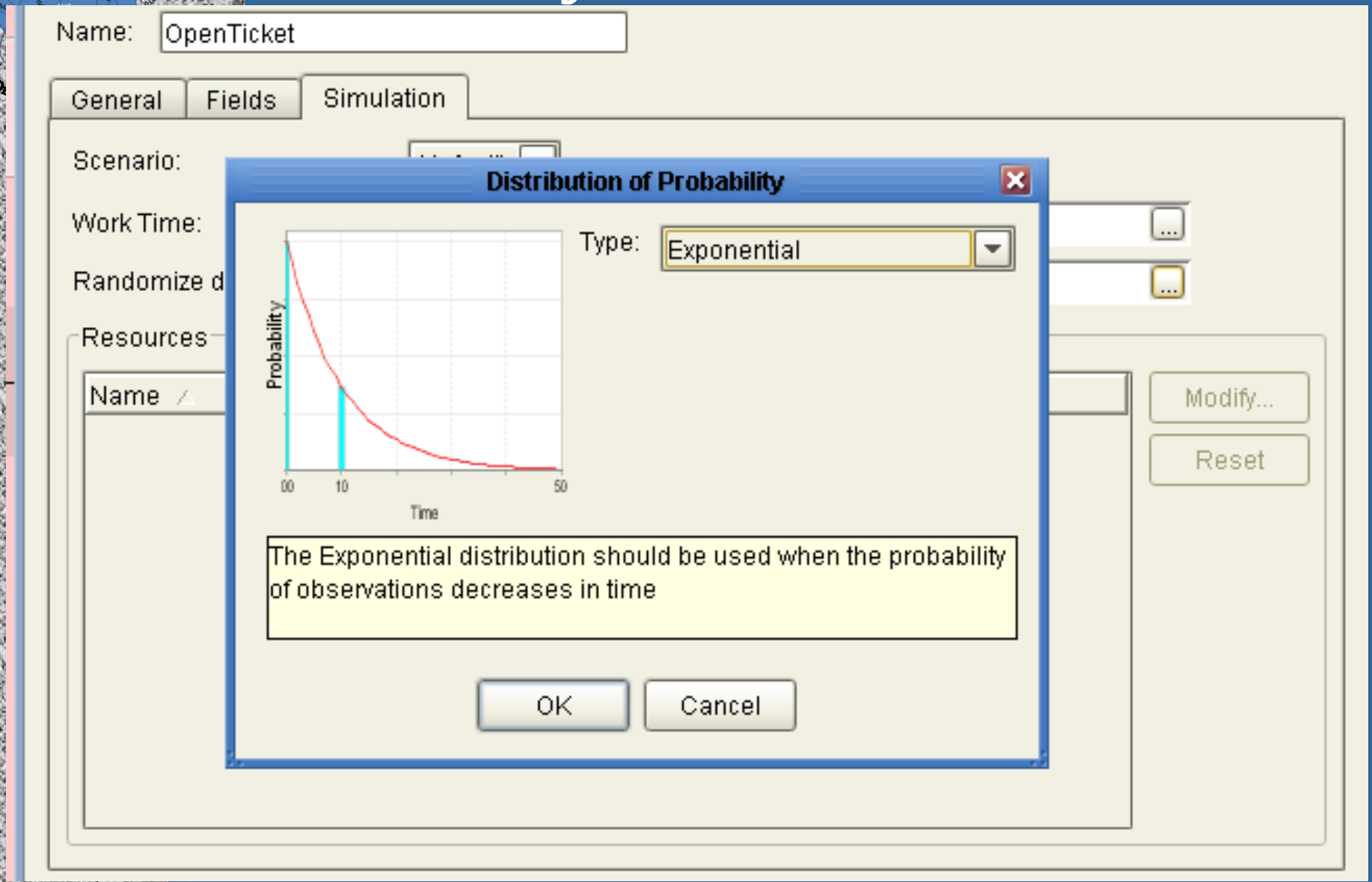
StDev:

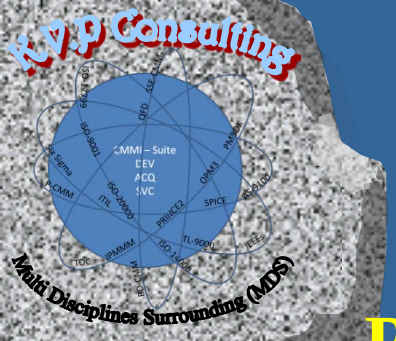
- Constant
- Exponential
- Normal

The Normal Distribution should be used when observations tend to accumulate around a particular value rather than spread evenly across a range of values

OK | Cancel

Case Study


Name: OpenTicket
General
Fields
Simulation
Scenario:
Work Time:
Randomize d
Resources
Name
Modify...
Reset
Distribution of Probability
Type:
Exponential
Probability
00
10
50
Time
The Exponential distribution should be used when the probability of observations decreases in time
OK
Cancel



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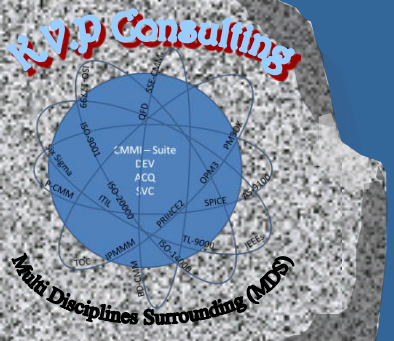
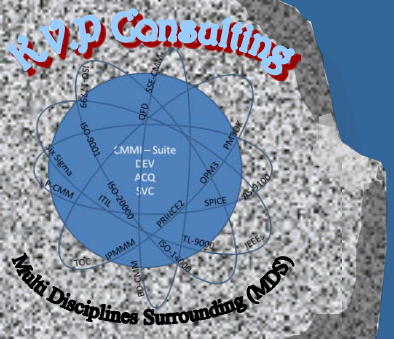
Process
Quality Audits and Progress Check Calibration


K.V.P Consulting
CMMI – Suite
DEV
ACQ
SVC
Multi Disciplines Surrounding (MDS)

Questions ?

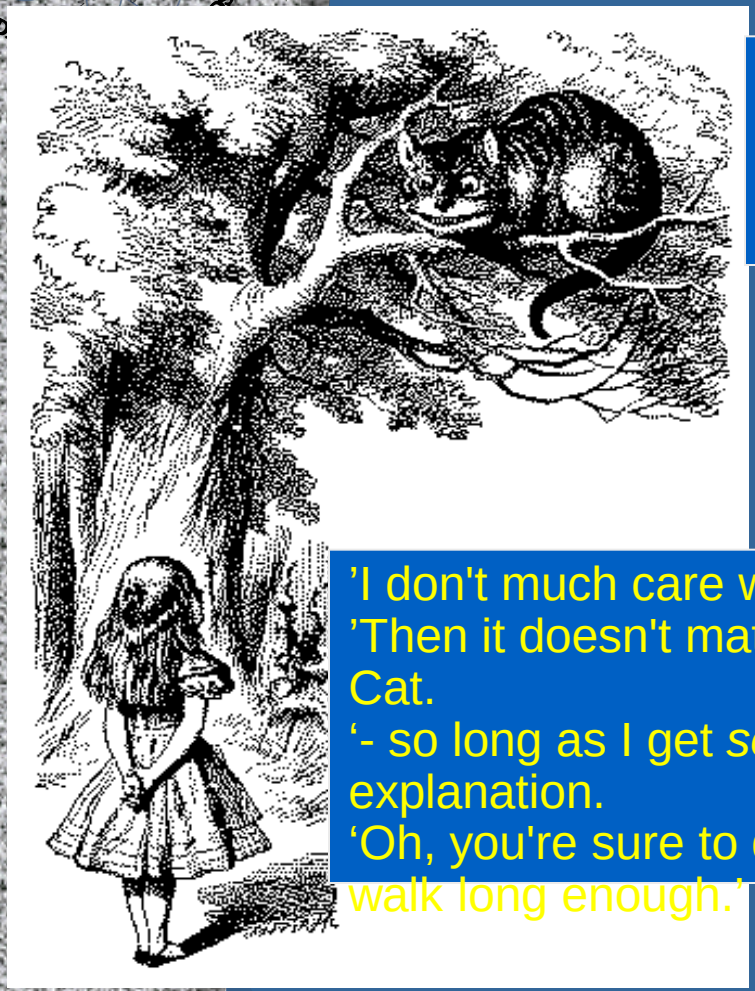


Case Study #1 Business Objectives Development and Quantitative Targets Management

The Challenge

- We have vision and business strategy
- We are focused on financial results that we can report on P&L
- Why we need other ‘business’ quantitative objectives and targets
- What are the benefits for the system and program mangers
- How we do it

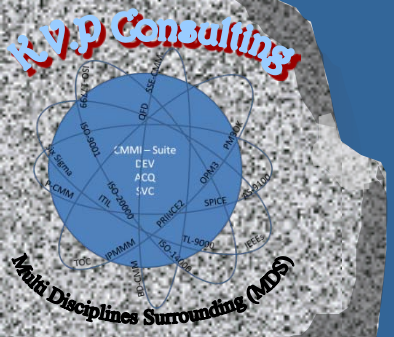
The Concept in Plain English



‘Cheshire Puss,’ she began, … `Would you tell me, please, which way I ought to go from here?’
‘That depends a good deal on where you want to get to,' said the Cat.

’I don't much care where –’ said Alice.
’Then it doesn't matter which way you go,' said the Cat.
‘- so long as I get *somewhere*,' Alice added as an explanation.
‘Oh, you're sure to do that,' said the Cat, ‘if you only walk long enough.’

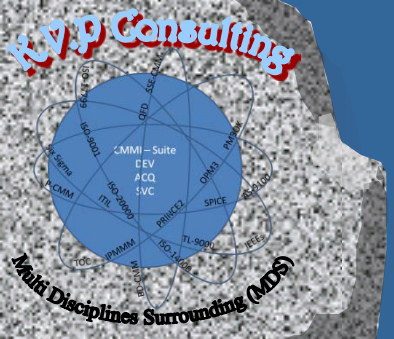
Tell me where you want to be and I will show (measure) you the way



And

- "When people consult me, it's not that I am reading the future; I am guessing at the future. … How do I guess at the future? Based on the omens of the present. The secret is here in the present. If you pay attention to the present, you can improve upon it. And, if you improve on the present, what comes later will also be better"

The Alchemist – Paulo Coelho



The Solution We Chose

Strategic Policy Deployment (SPD)

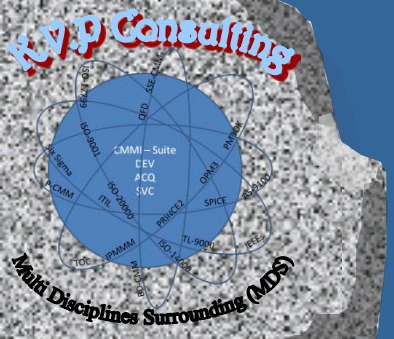
Strategic Policy Deployment

- Combination of:
  - Clear & Aligned Priorities
  - Behavior Changes
  - Change in Thinking (PDCA)
  - Elimination of Waste

…to achieve Business Results

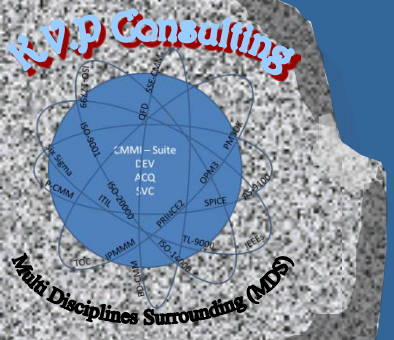
Snap Look to The Tool

Microsoft Excel
Worksheet



Strategic Policy Deployment

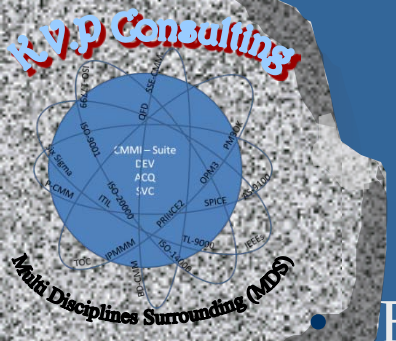
- A process to *focus* upon Goals, that cut across the corporation
- *Aligns & links* resources & action in pursuit of those Goals.
- Enables progress towards the Goals to be *measured*
- Enables rapid *root cause corrective action* if results vary from goals
- Drives *process* improvement
- Individuals & teams get clarity on their impact upon the Goals
- It becomes the yearly implementation of our long term strategic planning process.



Policy Deployment as a Tool

Policy Deployment is an effective tool to use for answering the following questions:

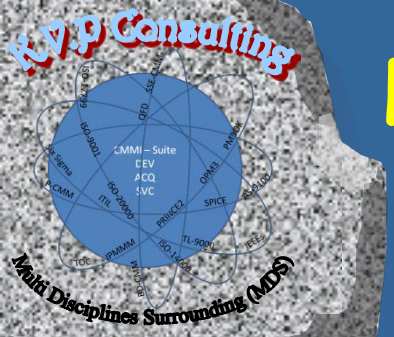
- How do we identify our critical goals?
- How do we develop plans and align our activities?
- How do we communicate our goals and activities level by level?
- How do we align the abundant talent of our team members on the critical few?
- How do we sustain our activities?
- How do we quickly change course when required?
- How do we learn from our experience?



Magnitude of Change

- Behavior Change
  - Discipline
  - Emphasis on ***how*** the organization will deliver the priorities
  - Catchball to understand the priorities and the means to deliver them
  - Gemba – look for evidence the plan is proceeding and in control
- Clear and Aligned Priorities
  - Start with top management priorities and link/translate at every level
  - Critical few metrics match Excel commitments
  - Must deselect

Highway



Your Destination
(Vision)

Keep improvement efforts focussed on the 'road' not out here !

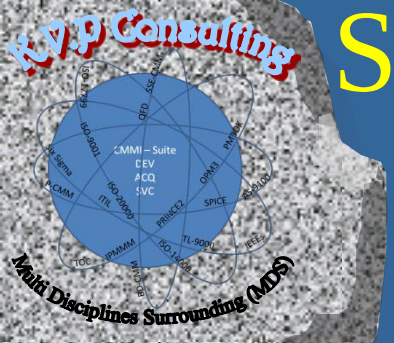
Use continuous improvement to remove the small obstacles on an ongoing basis

The 'road' is typically strewn with obstacles (boulders) some are large, some are small

Use policy deployment to remove the big boulders one at a time

Your Start Point
(Present situation)

Strategic Policy Deployment Process



Step 1
Choose the Focus

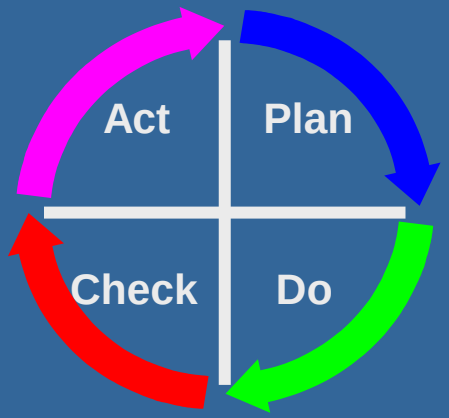
Step 2
Align the Organization

Step 3
Implement the Plan

Step 4
Review and Improve

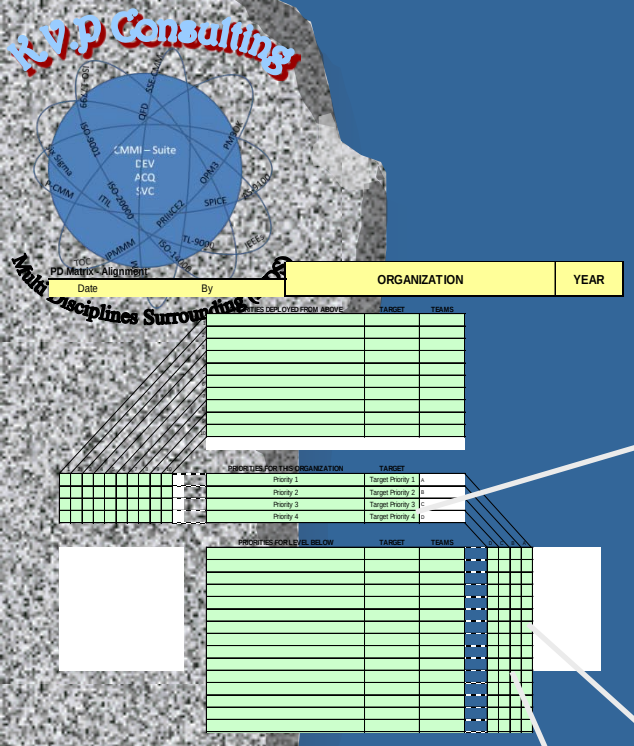
frequently

Strategic Focus

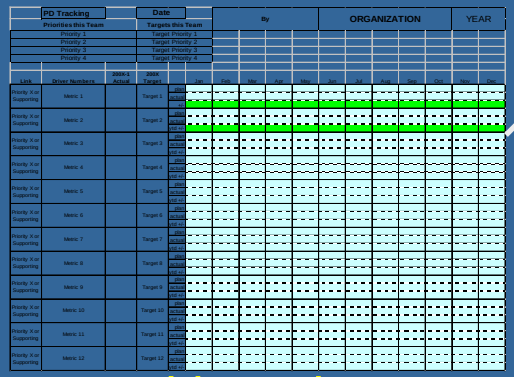


Operational Focus

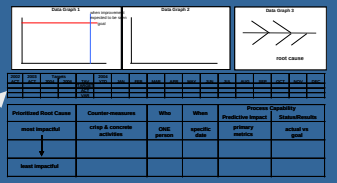
The Forms Link…

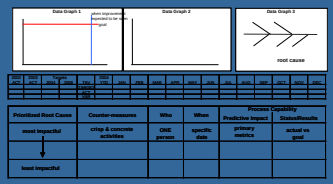


Alignment Sheet

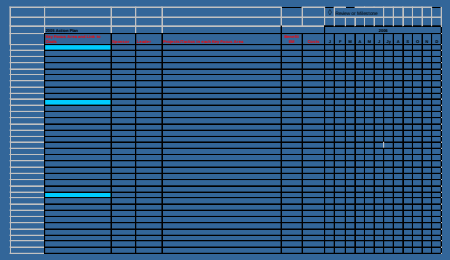


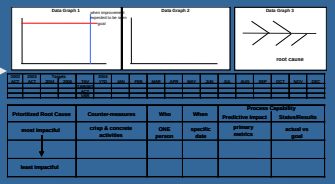
Tracking Sheet



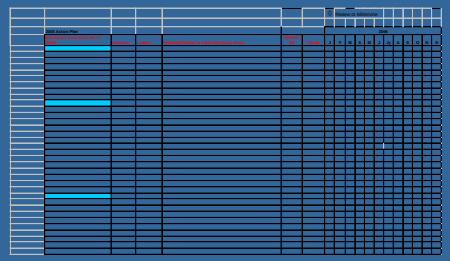


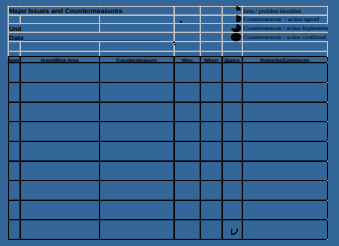
Red items





Problem strip for red items





Program Plan (multiple)

Catchball

- Process to build consensus through dialog about the goals and how to achieve them.
- Two way communication that arrives at a collective wisdom on the priorities and the plans to deliver the results.
- Leader needs to have a vision of what is needed and how it may be achieved.
  - Team will provide input on the specific how.
  - The leader will confirm the plan:
    - Push the team to stretch further if the plan comes short of what he had in mind.
    - Question and develop understanding of the plan if the plan exceeds what he had in mind.

Targets

All priorities require a target so they can be measured.

Targets have to be achievable, challenging, based on reliable data, and SMART.

S - specific

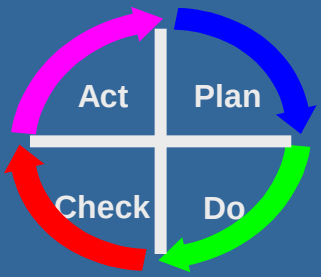
M - measurable

A - agreed

R - realistic

T - timed

The DO Phase

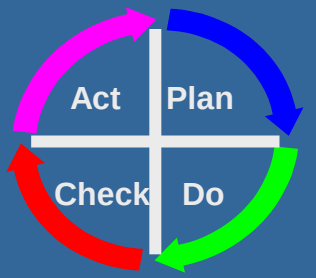


- Stay ***focused*** on the ***plan***.
- Make ***execution*** of the plan as visual as possible.
- ***Review*** the plan on a regular basis.
  - Look at metrics daily/weekly
  - Formal reviews monthly
    - results vs. expected, as well as the ***countermeasure*** to fill the gap
- Ask ***why*** if the team is doing things that are not in the plan.
- Question frequently by ***going to see***.
  - Schedule the time to look for evidence that the plan is proceeding and in control.

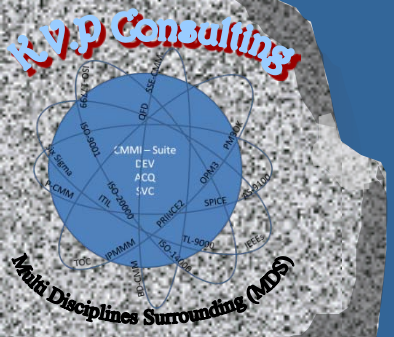
The CHECK Phase

Holding reviews maintains the discipline of the process:

- Confirm progress of current activities to expectations.
- Confirm the results to target. Look for trends.
- Evaluate the plan and results.
- Be visual.
- Hold timely, regular reviews daily/weekly/monthly, dependent on level.
  - Look at metrics daily/weekly
  - Hold formal reviews monthly
    - results vs. expected, countermeasures to close any gaps
- Reviews should be disciplined and structured.



A mini PDCA cycle takes place everyday as activities are checked constantly.



The CHECK Phase

- Counter measures are data driven looking at root cause.
- Check if previously identified counter measures are working and on track.
- Don’t react to noise.
- Escalate issues that can not be resolved to the next level.

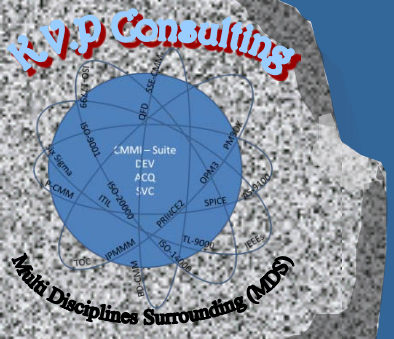
The CHECK Meeting

The manager runs the review meeting.

The manager should focus on standard work:

- Metrics Chart
- Action Plan
- Corrective Action for RED Items
- Key Items at Risk

- Asking clarifying questions during the review process.
- Making sure that each person knows what is expected of them to move forward.
- Confirmation check – will this plan get us there?
- Follow up at Gemba before the next review for key issues.



Check Questions

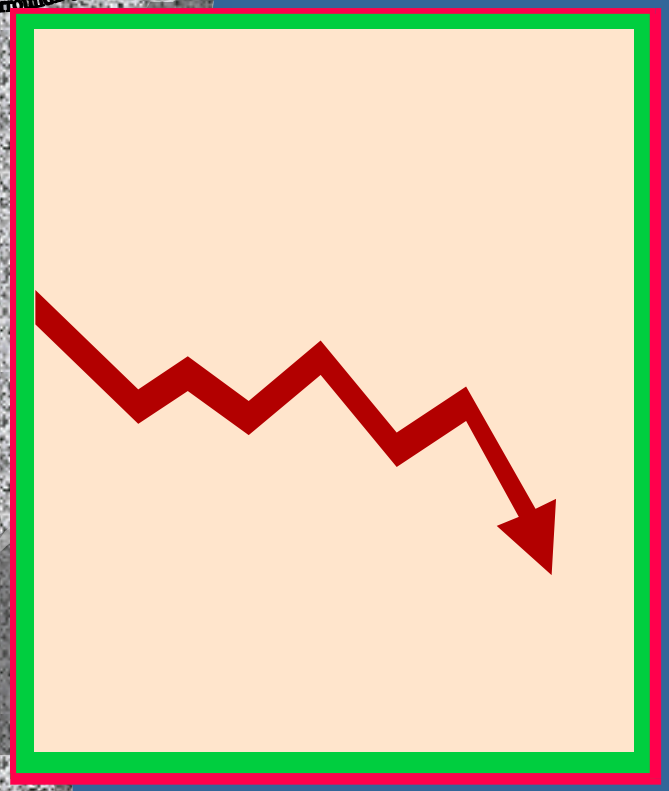
Policy Deployment – Questions to Ask

1. Do you have a plan?
2. Does the plan close the gaps to the goal?
3. Is the plan being executed on time?
4. Is the plan generating the expected business results?

If the answer is no for any of these, generate a countermeasure

Monitor effectiveness of countermeasure

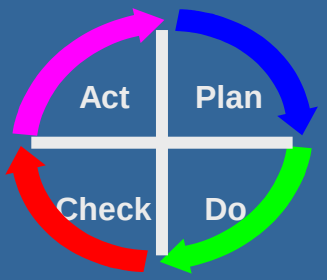
Look for trends – not just red/green

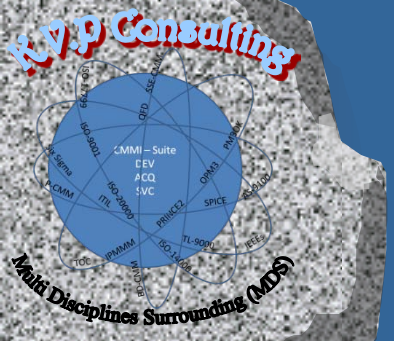


- Metrics chart gives an overall view if on track
- Use graphs and charts to see what is really happening.

The ACT Phase

- If off track:
  - Review the plan and countermeasures to confirm that gap from the plan can be closed.
    - Is the plan itself valid or does it need to be modifid?
  - Follow up to determine if actions on the countermeasures have been done.
  - Go to GEMBA to check to see if progress is being made on critical issues
- If on track
  - Lock in the condition with standardized work
- Confirmation Check
  - Does the plan and countermeasures link to the goal/vision?
  - Does it seem reasonable?

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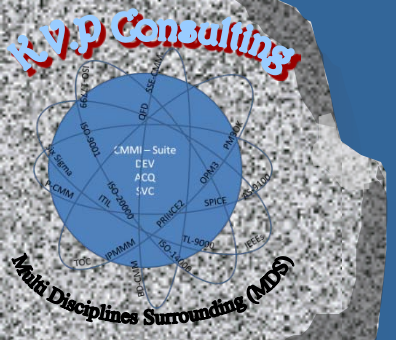
CMMI – Suite
DEV
ACQ
SVC
Multi Disciplines Surrounding (MDS)

How We Did It

<BU ABC> Business Objectives

- The strategy document has 53 quotes the leading us to an optional list of Business Objectives and Quantitative Targets

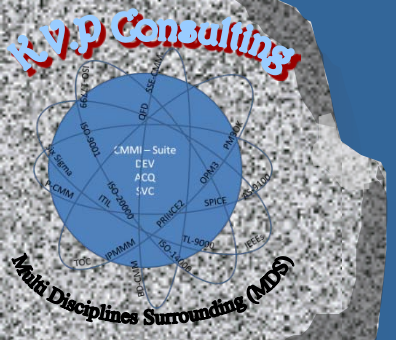


Business Objectives

- Supporting professional and personal service on competitive terms
- Flexible adjustments to changing market conditions at the lowest possible cost and a satisfactory time-to-market
- Keep its leading position
- Group's systems must be capable of handling growth in the Group's business, organically as well as through mergers and acquisitions

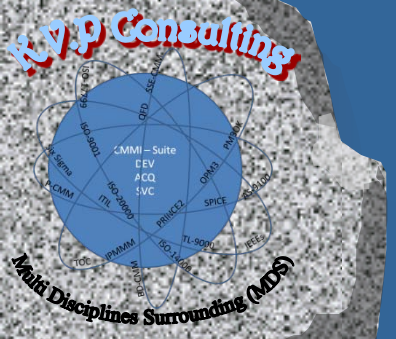
Business Objectives

- Prioritizes resources and projects based on cost-benefit considerations
- Manages the actual development process
- Systems must be designed for group-wide deployment
- Systems and functionality are reused across products, distribution channels, brands and markets
- Systems must optimize cross-organisational processes and make it possible to combine parts of the Group’s products into new products



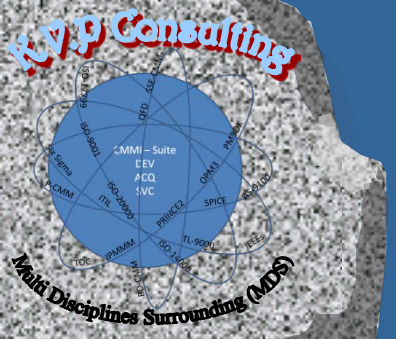
Business Objectives

- By reusing system elements, even across different technical platforms, significant efficiencies are gained in the development of systems
- Integrate third party systems into the whole system complex, regardless of the technical deployment platform
- Minimize the costs associated with the integration of applications and tools across systems and platforms
- Limited but adequate set of market leading technologies are used as standard tools



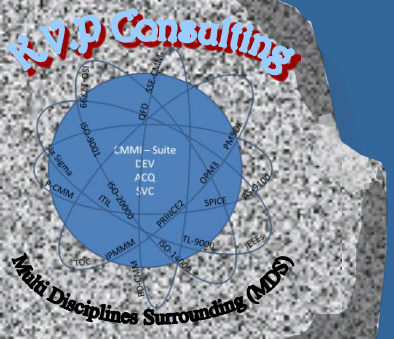
Business Objectives

- SyDLC and TCO must be implemented in such a way that the integrity of the business cannot be compromised
- level of security and operations must be high and financially sound
- Systems and platforms must have a high quality level, protecting the Group against errors, down time, security breaches and data loss
- Quality level must correspond with risks, consequences and not least the expectations of the customers



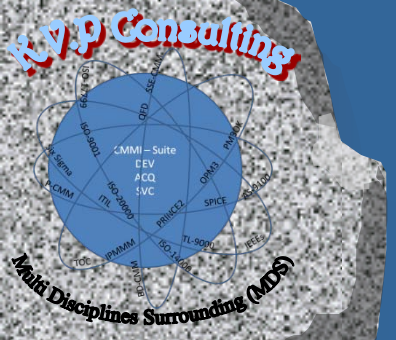
Business Objectives

- Systems must adhere to the agreed service levels and be delivered with the agreed functionality
- Simple and accessible user interfaces, adapted to the user's role or the customer's needs
- Access is given to the necessary functionality and information from the underlying business system based on consolidated data
- Systems must constantly support the chosen set of distribution channels and user interfaces, enabling the Group to meet the customer at any given point



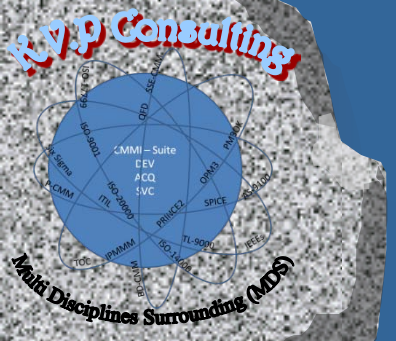
Business Objectives

- Knowledge about the customers and their behavior must be gathered in a structured way on each customer interaction, and related to the Group's products
- Integrated and customer-facing sales and advisory system ensures that products and services can be developed and deployed across business units, customer segments and distribution channels
- Reduce the Group's costs by optimizing the whole value chain



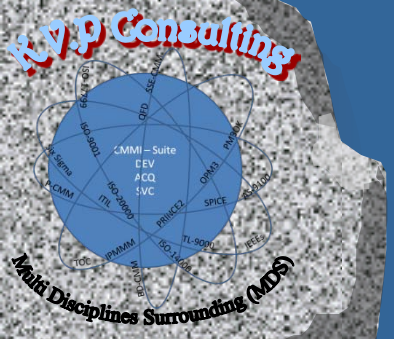
Business Objectives

- Costs associated with the rationalisation of processes must be minimal, enabling economically feasible automation of even small business processes
- Business procedures must be implemented direct as supported processes, guiding employees and customers through the activities with as little prior knowledge as possible, letting them concentrate on the products and actual business.
- Enables conversion of manual activities into automatic sequences without changing the basic design of the underlying processes.



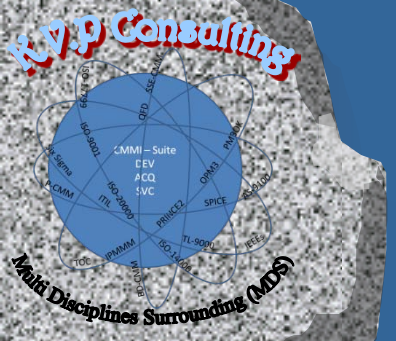
Business Objectives

- Combine activities efficiently and flexibly across distribution channels, partners, brands and markets, wherever this is desirable from a business point of view
- Systems must support the processes which gather, organize, share and analyse the entire knowledge platform that exists about customers, products, business initiatives, organization, employees, etc
- Information must be available at any time and anywhere to those it is meant for
- Group's management processes and pricing, they must be based on consolidated and sufficiently current data



Business Objectives

- Increase flexibility gradually without compromising on efficiency and stability
- Diversity is handled systematically and efficiently by using an infrastructure, which efficiently integrates systems, processes and manual activities across platforms and technologies
- Infrastructure is provided to developers, freeing them from having to programe integration and flexibility into each system
- Use of market leading standards
- Design of system elements focusing on flexibility

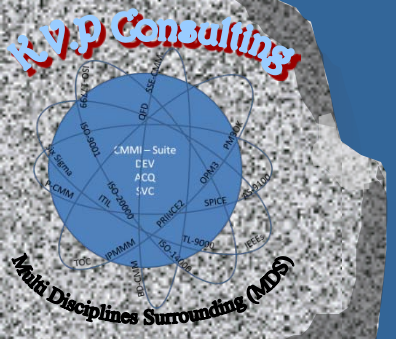


Business Objectives

- System elements must be designed to scale in line with business growth and expansion
- System elements must be capable of handling unexpected events
- Ensure that systems can continue normal operations with the least impact on the business
- Business continuity during normal operating conditions as well as in disaster-like situations
- Systems design must if possible take into account the changeability of externally controlled data and processes
- Readiness for change by implementing changes for the entire group

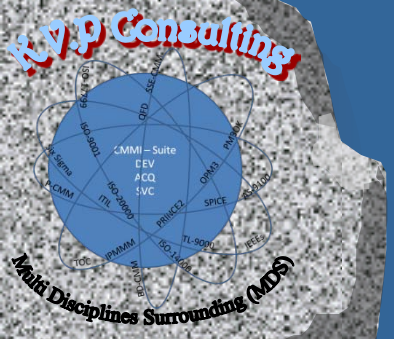
Business Objectives

- Resources can thus be reused in any other project or area in the Group in a simple and efficient way, thereby ensuring consolidation of both data and functionality
- It must be possible to combine scattered IT resources into complete systems, applications and actual business processes
- Infrastructure must handle the coupling dynamically and parameterized
- Selection of coupling method must not be based on a technology choice made by the developers



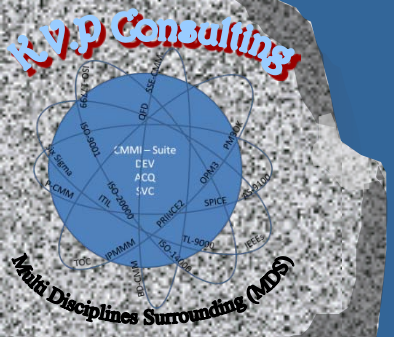
Business Objectives

- Infrastructure and development methods must as a minimum support a layering of systems into user interfaces, business logic and data
- Service levels must if possible be based on dynamic and flexible policies, which are directly definable in the operational environment
- Infrastructure must efficiently handle error detection and quality control of complete system
- Infrastructure must efficiently support the integration
- Architecture is an essential parameter when choosing a third-party system



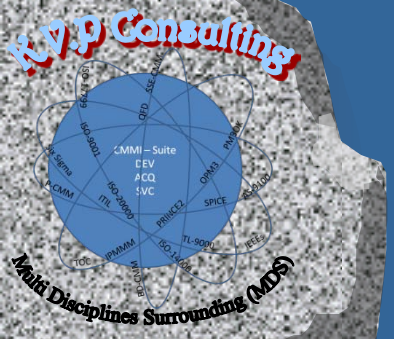
Business Objectives

- Program managment must ensure consistency across manual and system-supported processes, by enabling any given process to involve both manual and automated work items
- Infrastructure must provide simple and efficient methods for supporting business procedures, processes and routines



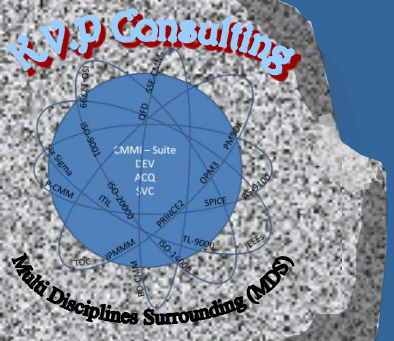
Specify Measures

Microsoft Excel Worksheet



Manage Measures

Microsoft Excel Worksheet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Questions ?

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