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# “Managing a Mature Measurement Process”

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# Welcome

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- I want to share with you lessons learnt following my involvement with an organisation wide measurement programme for several years.
- Measurement can provide an organisation with the ability to focus on what needs attention not on who or what is “shouting” loudest.

# Topics

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- Challenges and issues with a measurement programme.
- So now we know where we are – where do we want to get to.
- Measurement Framework – The route
- Conclusions

# Challenges and issues with measurement programme

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- Are all the stake-holders known at each level of the organisation ?
  - What are they expecting ?
    - Manager type (cheer leader / process)
    - Their conscience ?
    - Don't tell the emperor he's naked
  - What are they funding ?
    - Scope and accuracy of measurements compared with finance
  - What are acted upon ?
    - What the Customer has asked for (SLA) is being done well or what are the issues (SLO).

Service Level Agreement - contract

Service Level Objective – desired behaviour

# Challenges and issues with measurement programme

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- Are the measurements trusted ?
  - What is the process for providing data ?
  - Is the analysis appropriate
  - Are they understood ?
- Is all the data necessary ?
  - Measurement is a means to an end. Data costs to provide.
- Do you know which data is used for which reports ?
  - Entropy ?
- Is the data consistent, accurate enough ?
  - Not everything needs to be 100%
- ...

# “So now we know where we are – where do we want to get to”

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- The measurement programme
  - has less challenges and issues
  - is providing the business with value  
hence making it easy to recognise the  
contribution of the key players in the  
measurement programme.
- The management team are getting the  
information (not just gee whiz data) which  
provides solutions to their problems

# Measurement Framework

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- Business needs / policy
- Processes providing data and evidence
- Data collection
- Data repository
- Data analysis
- Reporting

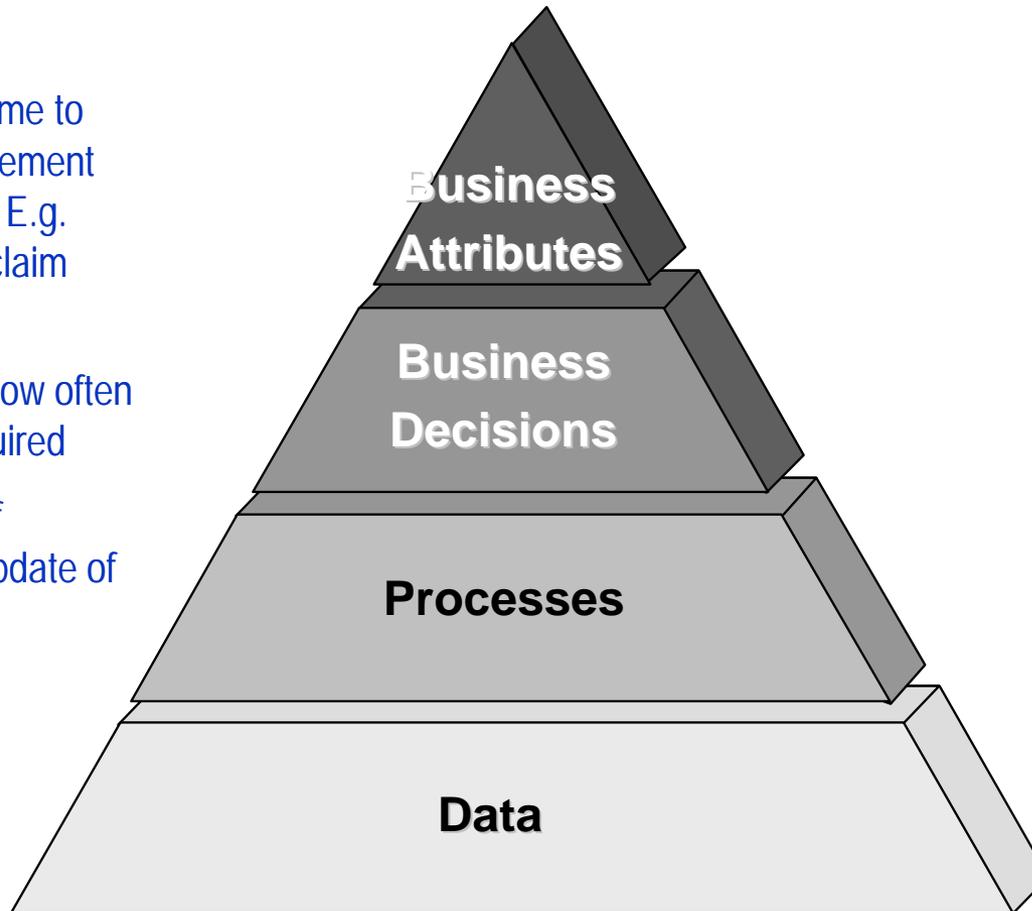
# Business needs / policy

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- Work with the Executive / Management team
  - Objectives
    - Level set the business goals that will be measured (testable requirements)
    - Review the map of reports to goals, so everyone can see which are giving least value, hence sunset or at least hide and see who objects so can release effort.
    - Are the reports giving the execs and management what they need to make decisions or provide them with the ammunition they need for their client negotiations?  
If not, what do they want ? What is achievable with the budget they have for the measurement programme ?
  - How achieved
    - Can be done with a facilitated workshop
      - The do's and don'ts of engaging a facilitator

# Business Measurements Model - characteristics

- Cycle time – time to provide measurement from data avail. E.g. days following claim close
- Frequency – how often is measure required
- Drive speed of measure and update of data



## CHARACTERISTICS

- Importance
- Performance
- Data Confidence
  
- Business Priorities
- Questions
- Action taking
  
- Coverage
- Owners
  
- Primitive and derived
- Quality
- Integrity
- Frequency
- Definitions
- Owners
- Cycle time

# Processes and projects provide us with data to make decisions to improve our performance against a recognised set of business attributes

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## Business Attributes

I need to understand how well my business is performing in order to make the right decisions in a timely way, setting appropriate business priorities and commitments from managers for this year

## Process Health

I need **process health** measurements to help me understand and continuously improve my Business Attributes performance (proactive approach)

I need **project health** data as evidence of process execution and to understand problem projects (reactive approach)

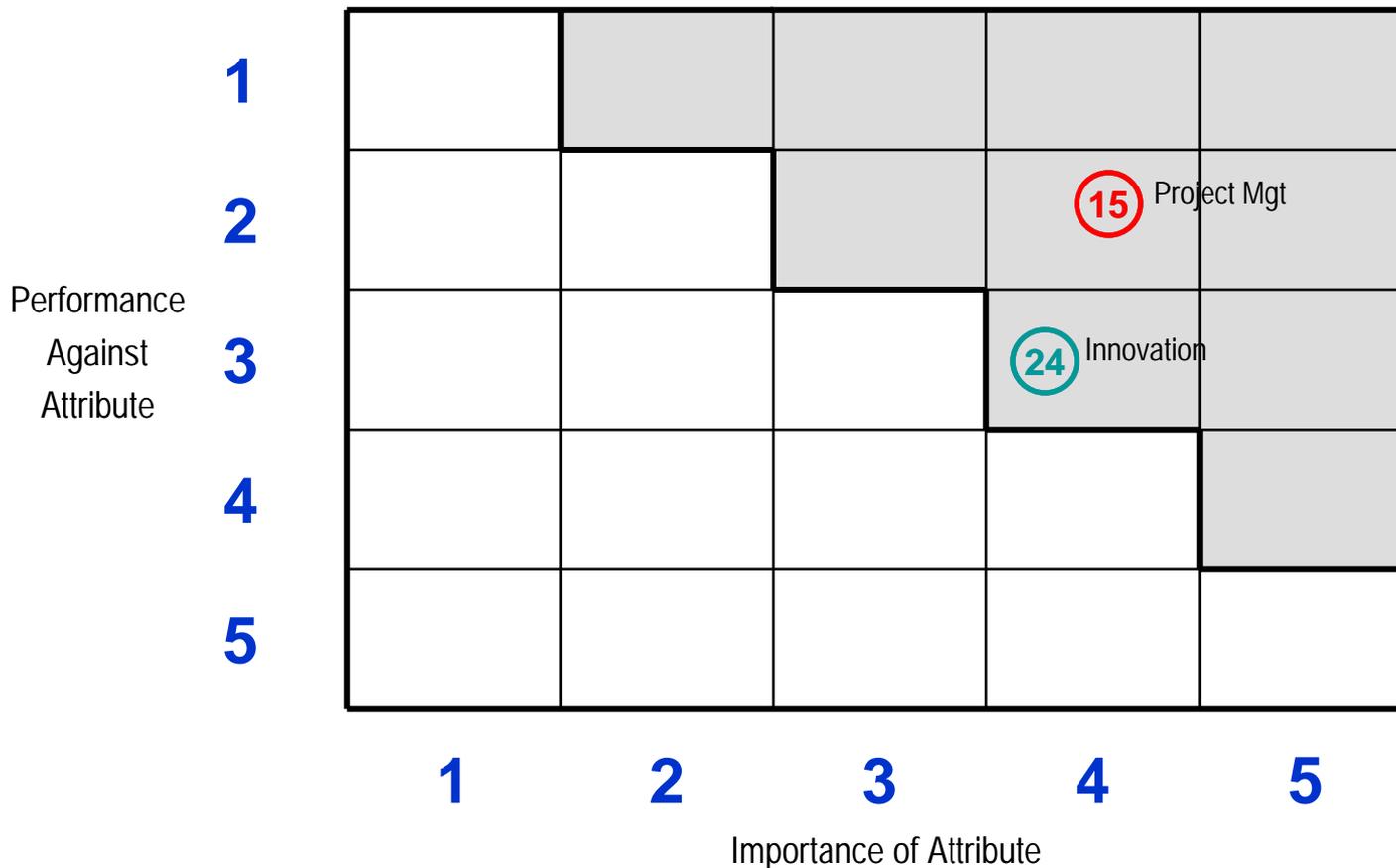
## Primitive and Derived Data

I therefore need to collect and derive data, at the right frequency, to support Process Health and Business Decisions

# Scoring and Prioritizing areas for measurements improvement

PRIORITIZATION MATRIX

Areas of highest importance with lowest current performance



**Data Confidence:**  
 Red = low  
 Amber = average  
 Green = high

# Processes providing data and evidence

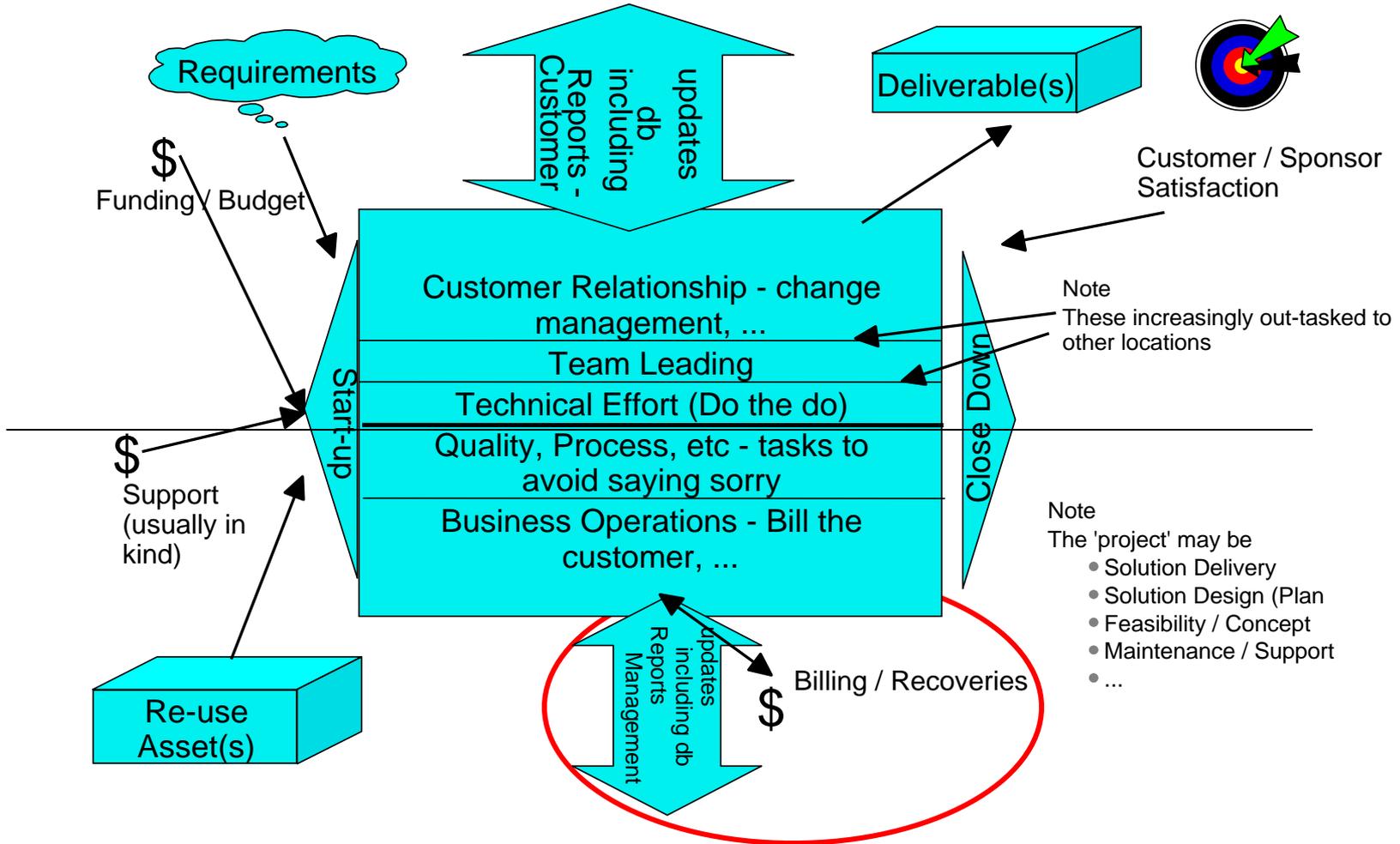
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- Measurement is not (typically) a revenue earning activity.
  - Get the culture right between do the do and report what's done
    - Business operations is not overhead, its what's necessary to enable you to bill the customer and prove bang for buck. Plus capture information to enable the organisation to do it smarter faster next time without reliance on heroes which all of your competitors can potentially do just as well.
  - Build an effective relationship with the Process Improvement team; ensuring measurement is not seen as the driver
  - Project Managers will never care about project closure activities, which have a key input to measurements, not least because they are looking for their next assignment.

This graphic illustrates the project – see next slide



The goal is to deliver on time, on budget, with required scope and quality of deliverable (s) within the terms and conditions of the "Contract"



# Data collection – define, deploy, support

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- Data definition is the devil in the detail.
  - Typical challenges and issues are
    - what events correspond to the start and end date
    - what categorisation of projects is required to enable apples to be compared with apples
    - what information in addition to the data (dimensions) is required to allow meaningful roll up and drill down
- Deployment covers
  - Publication
  - Commitment to adopt
  - Education
    - Measurements is the cart – management system, delivery model etc. is the horse.
    - Don't let evolution of the measurement programme be seen to be driver for change in the activities that the Project Managers (PMs) must perform. Ensure that Process Improvement deployment is happening first. As smart professionals it's easy to get ahead of the game.
    - The PM's management should care about measurement because it will enable them to give their PMs a better start and more realistic objectives etc.  
But if the organisation rewards the fire-fighters ...
- Support
  - What's need to prevent “Are these people deliberately trying to sabotage our measurements with their bad data”.
  - Audit / data integrity – Building an effective relationship with QA and Business Controls; avoiding garbage in garbage out  
Involve quality reviewers, give them measurement skills get them to assist with identifying weak process / procedures that will give bad data.

# Data repository

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- Facilitates easier and better quality data collection, analysis, and reporting.
  - Involve a part time techie to enhance automation of reporting and capability of repository – he /she will need some sort of reporting package – don't penny pinch.
  - A CMMI assessment can be obtained with data on bits of paper on a nail behind the boss's door.
  - Business value from measurements demands something more sophisticated – however the answer is not always Microsoft Office ;o)

# Data analysis

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- Quantitative analysis
  - What is the data doing (scatter graphs)
- Statistical analysis
  - “How to lie with statistics”, for example which type of average.
  - One or two values influence the result.
- Hints and tips on getting the best out of the spreadsheets.
  - Work on a copy of the imported data
  - Use the Filter, Sort, & Charting capability
  - Use the data analysis formulae

# Reporting

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- Taking the “gee whiz” numbers and creating recommendations to management.
  - Involve training/education folks to sharpen quality of reports
- Reports – ensure that in amongst the up out deliverables there is a sensible proportion of down in diagnostic reports available to improve and demonstrate data quality.
- Reports / measures need to be smart to avoid encouraging dumb behaviours
  - For example. The rolling 12 month average trend is a good organisational measure. Setting the average as a target for a particular project is dumb not least because the average of 1,2,8,9 is 5 so a target of 5.5 can't be done for the 1s and 2s because of their project attributes and is pointless for the 8s and 9s.

# How to identify the strengths and weaknesses of your measurement reports

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- Categorise reports as
  - Rear view – A report of what has happened. For example rolling 12 month average.
    - A statement of fact but provide management with little opportunity to change the business
  - Dashboard – A report of “current” status. For example project status indicator (RYG)
    - Provide better opportunity to trigger management action – focus on what’s needed rather than “who is shouting loudest”.
  - Windshield – A report of “predicted” measurement.
    - Provide management with a possible future unless they take action.

# Conclusions

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- The measurement framework addresses the challenges and issues of a measurement programme. Check that for each component its
  - Defined
  - Deployed
  - Supported
- Management of a measurement programme needs input from
  - The executives / managers
  - The Process Improvement team
  - Technical folks to improve the infrastructure
  - Data modelling and analysis subject matter experts
- The goal is to enable executives and management to focus on what needs their attention, not just on who or what is shouting loudest.