



High Performance ITSM Simulation

Half-day Workshop





One-Day Workshop Agenda

- **Introduction**
 - Workshop Objectives
 - ITIL & ITSM Overview
 - Simulation Overview
- **Race 1**
 - Preparation and Planning
 - Run Race 1
 - Performance Review
- Service Support Processes
- **Race 2**
 - Preparation and Planning
 - Run Race 1
 - Performance Review
- Service Delivery Processes
- **Race 3**
 - Preparation and Planning
 - Run Race 2
 - Performance Review
- **Closing Discussion**
 - Workshop Review
 - Open Discussion



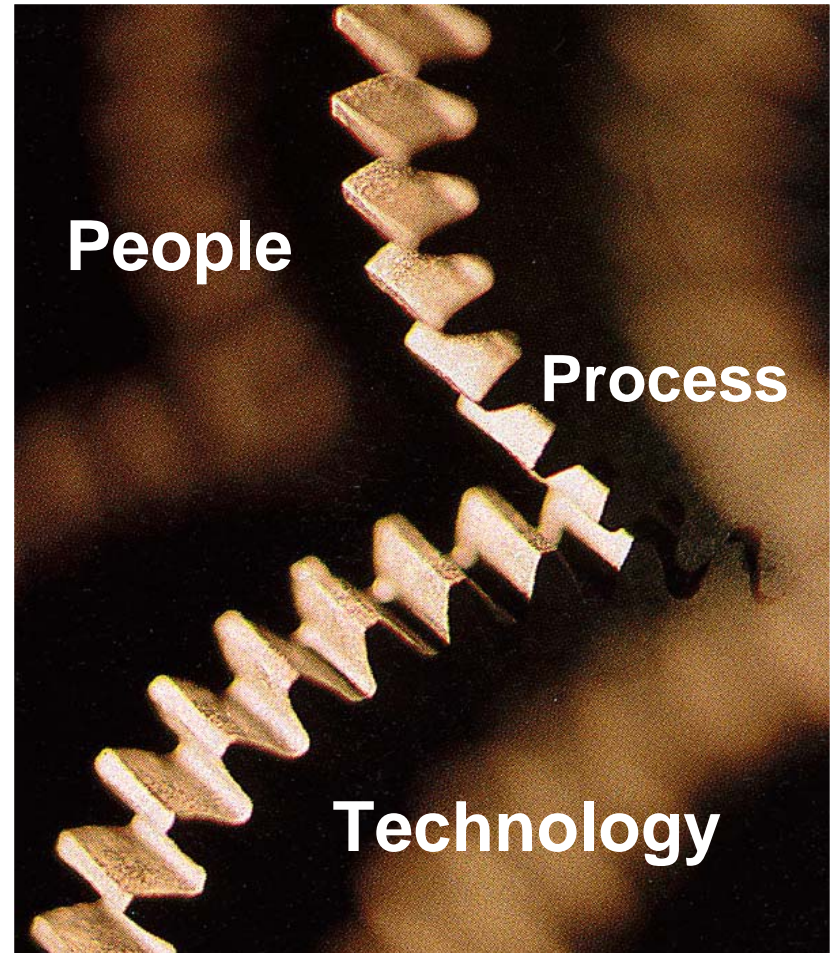
Introductions

- Name
- Organization
- Role

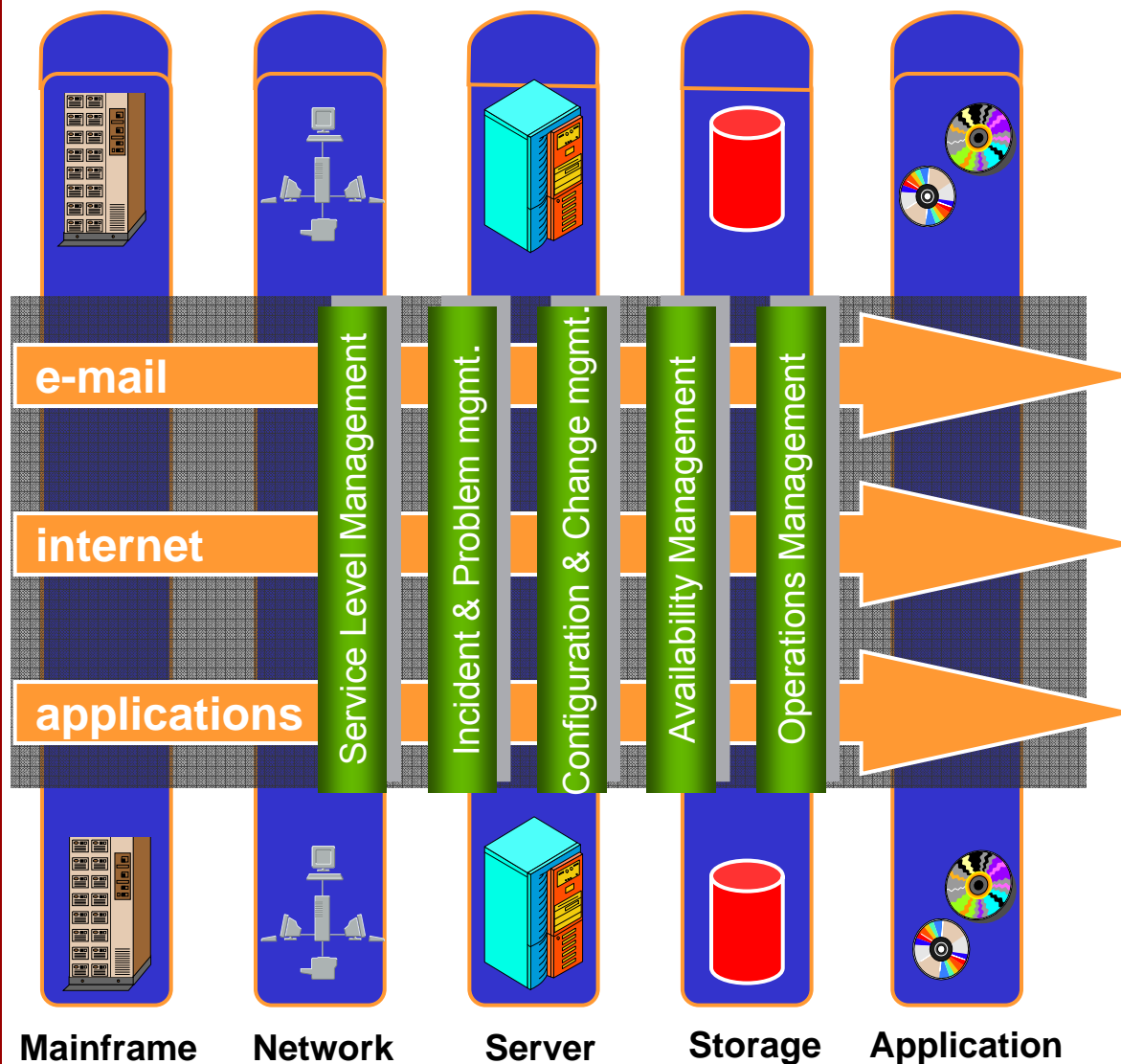
Workshop Objectives

Through a simulated experience:

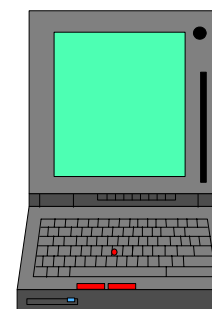
- Realize the importance of *People and Communication* as they relate to the Success of your ITSM initiatives.
- Understand the Operational and Business benefits of *effective Process Management*
- Develop a deeper awareness of *ITIL Best Practice* and its relationship to *IT Service Management*



“Traditional” IT Organization



Many Organizations manage technology to users as Silos



...when customers see them like this

...IT must focus on delivering services to customers with consistency in execution through streamlined and automated IT processes

About ITIL?

ITIL = Information Technology Infrastructure Library

- Created in 1989 by the CCTA (now the Office of Government Commerce), a UK government agency

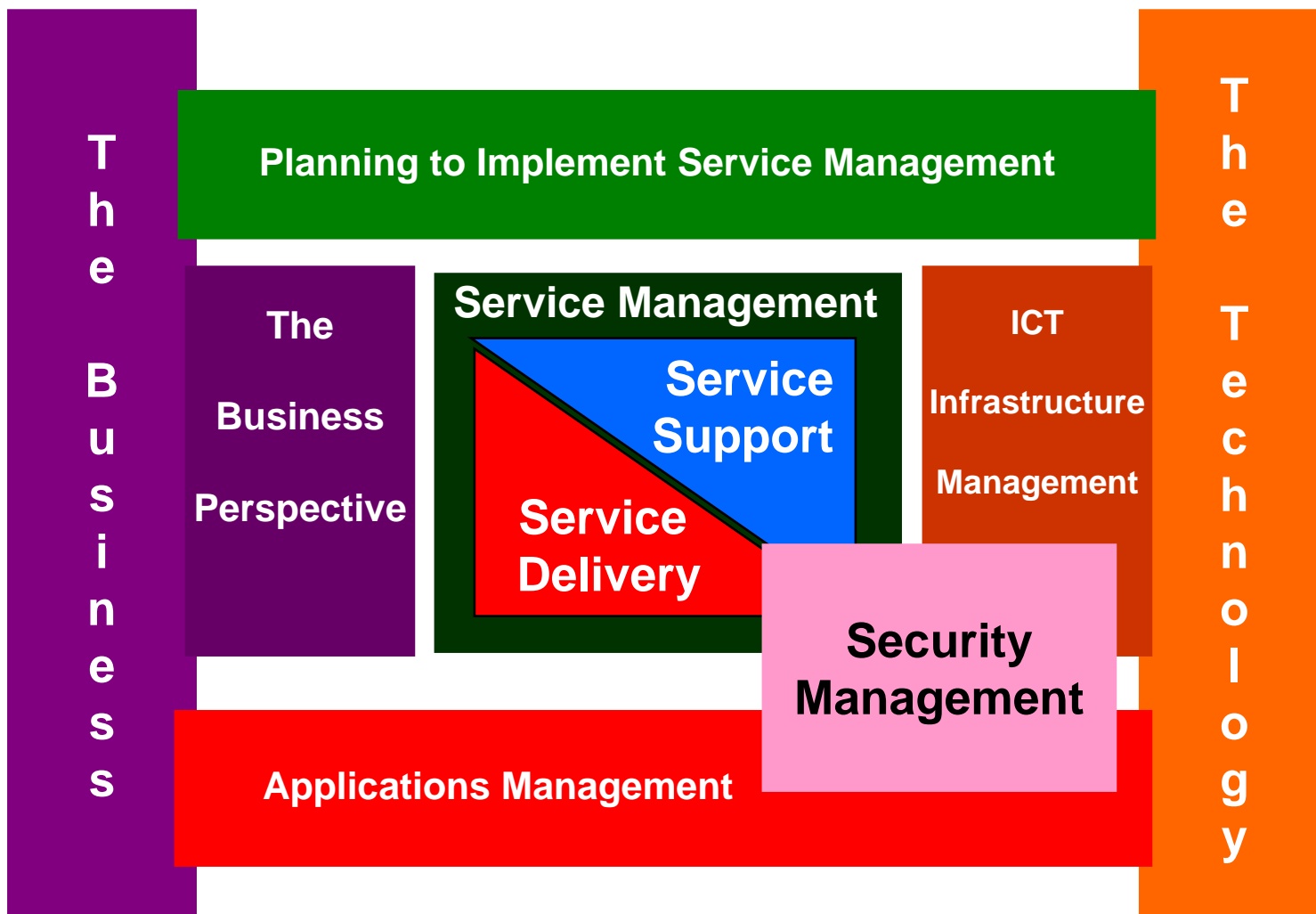
ITIL is;

- Library of books that define a *framework* for *best practice* of IT processes
- Vendor independent, Platform independent, and Tool independent
- It's a guide about *WHAT* to do... Documented Common sense
- Organizations should adopt and adapt

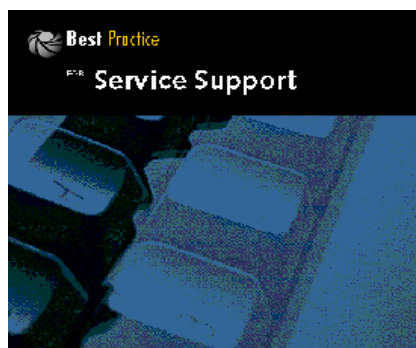
Key Objectives

- *To align IT* with the current and future needs of the Business and its Customers
- *To improve the quality* of IT Services Delivered
- *To reduce the long-term cost* of Service provision

IT Infrastructure Library (ITIL)



Service Management Disciplines



Service Support:

- describes the processes associated with the day-to day support and maintenance activities associated with the provision of IT services.



Service Delivery:

- covers the processes required for the planning and delivery of quality IT services and looks at the longer term processes associate with improving the quality of IT services delivered.





The Business of Formula 1

- Ferrari and Toyota spend over \$300m per year
- Investment by related industries (Fuel and tires)
- Also attracts significant sponsorship dollars from other industries
- F1 Development and testing makes Hi-Tech a standard
 - ABS, Fuel Injection, Traction Control
- Success on the track
 - Success in the showroom

World Stage for IT

- IT is central to each F1 team's success
 - Testing and design is all computerized
 - IT Systems are used to monitor and manage car systems in real-time during races
- IT is critical for winning races
- Winning races is critical for earning money





The Bottom Line

- Earning revenue depends on winning races
- Winning races depends on IT
- If IT fails, the team loses money

Simulation Objectives

- **The Business Objective** is to Maximize Sponsorship revenues by finishing as high as possible on the Leader Board
- **The IT Objective** is to enable this by ensuring High availability of Business Services to the Race Team



Simulation Overview

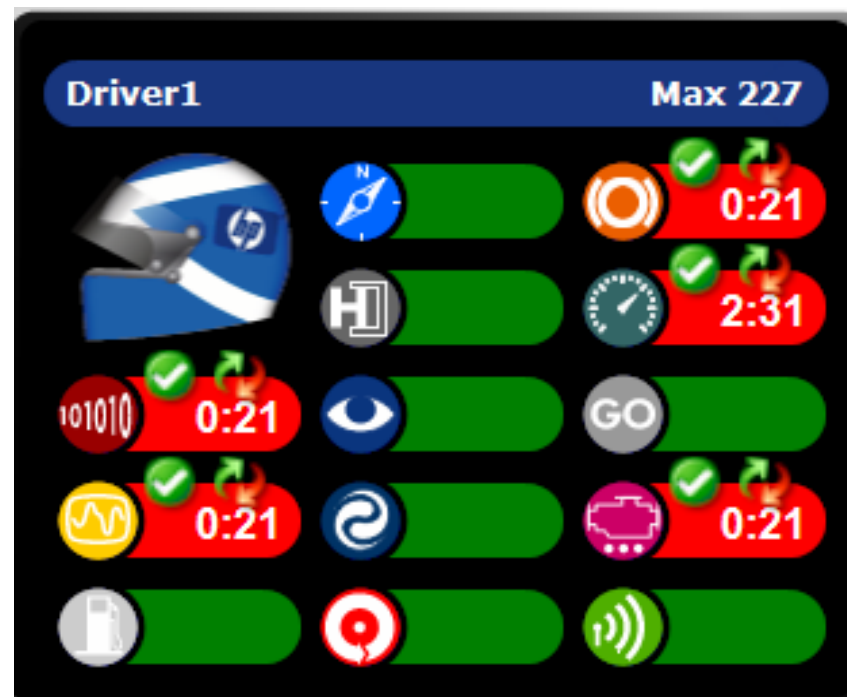
- There are 5 Teams in a 5 Race, World Championship Series
- You are part of the HP Team



- Sponsorship revenues are based on Race performance
- The higher the Team finishes a Race, the higher the Sponsorship Revenues

How it works






- Each car is supported by a number of Business Services
- These Business Services are Supported by IT
- Race Performance is related to the availability of these Services
- If a Business Service Fails, the Team loses Money

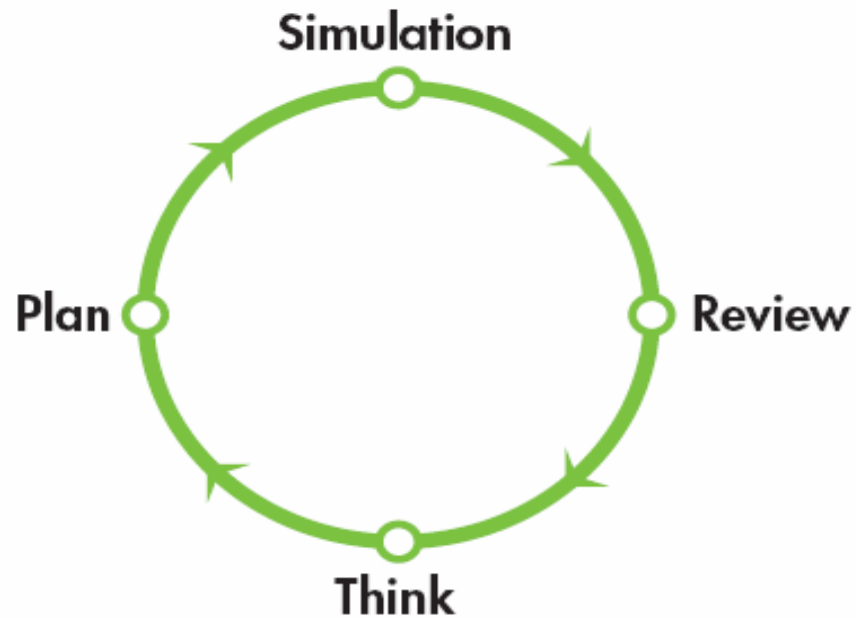


HP High Performance ITSM simulation



Service Improvement achieved through...

-  Race (Simulation)
-  Review
-  Think
-  Plan / Implement
-  Race



Facilitator will assign roles, and give instructions before the Race begins



The Balanced Score Card

Business Performance

- Race Points
- Revenue Targets
- Support Costs
- Profit and Loss

IT Performance

- Customer Satisfaction
- Operational Effectiveness
 - Service Availability (MTTR)
 - Workarounds + Fixes

People and Process

- Roles and Responsibilities
- Communication / Teaming
- Process Management (ITIL)
 - Service Desk (Function)
 - Incident and Problem Mgmt
 - Chg. Config. Release Mgmt
 - Service Level / Financial Mgmt
 - Availability and ITSCM Mgmt

Tools

- Incident Record
 - Service Priority Matrix
 - Resolution Strategy
- System Solution Log (KEDB)
- Business Service to Application Mapping (CMDB)
- Event Monitoring

Roles and Responsibilities



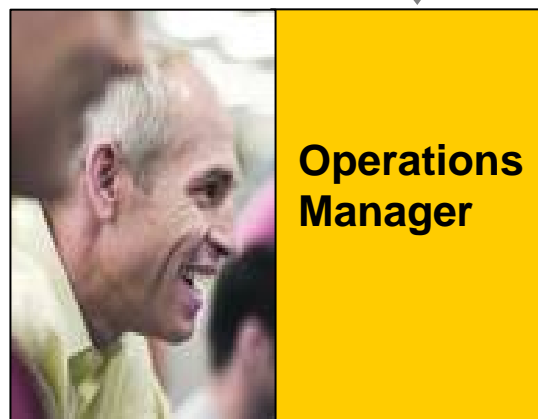
The Business



Race Engineers



IT Support



Service Desk



IT Support Team



Vender Support

HP Consultant





Prepare for Race 1:



Performance Review Race 1:



The Balanced Score Card (Race 1)

Business Performance

- Race Points
- Revenue Targets
- Support Costs
- Profit and Loss

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People and Process

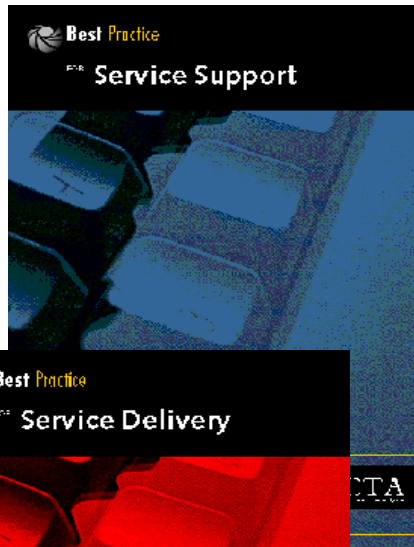
- Roles and Responsibilities
- Communication / Teaming
 - Revenue Targets
- Process Management (ITIL)
 - Logging and Tracking
 - Change Config. Release Mgmt
 - Financial Management

Tools

- System Solution Log (KEDB)

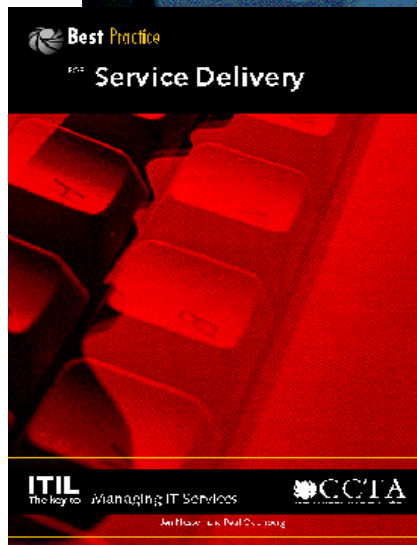
Break

Service Management Disciplines



Service Support:

- describes the processes associated with the day-to day support and maintenance activities associated with the provision of IT services.



Service Delivery:

- covers the processes required for the planning and delivery of quality IT services and looks at the longer term processes associate with improving the quality of IT services delivered.

ITIL vs. ITSM

ITIL is a best practice framework of Business centric, and Services focused IT Processes

- A consolidated reference of what to do
- Activity flows, and a common Language
- A Quality approach for continuous improvement
- Provides for predictable and measurable outcomes

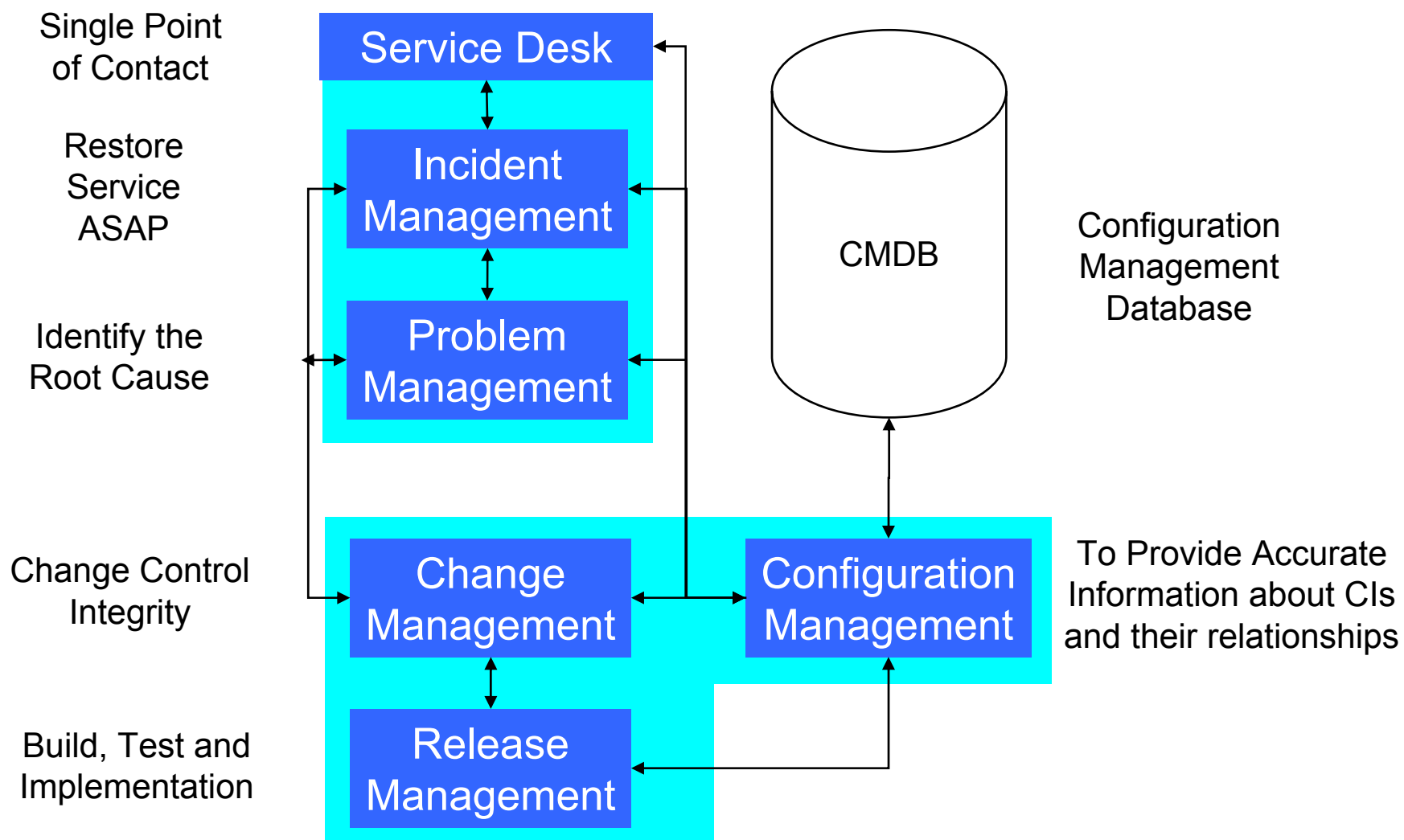
ITSM is a process driven approach goaled toward optimising the provision of IT services required to effectively support and enable the business.

Key focus areas;

- **Quality** of Service Delivery
- **Cost** of Service Provision
- IT to **Business Integration**
- **Flexibility, Adaptability of IT**

ITSM represents a considered balance of People, Process and Technology

Service Support Processes



Service Desk Function

- Goal
 - To act as the **central (Single) point of contact** between the User and IT Service Provider.
 - To **handle Incidents** and Requests, and provide an interface for other activities such as Change, Problem, Configuration, Release, Service Level and IT Service Continuity Management.
- Function Activities
 - Ownership, Monitoring
 - Communications, Escalation
 - 1st Level Support
 - Initial Investigation and Diagnosis (Matching)
- Terminology
 - Types of Services Desks
 - Local, Central, Virtual
 - Single Point of Contact
 - Escalation
 - Functional, Hierarchical
 - Knowledge base
 - Matching

Incident Management

- Process Goal
 - ***To restore normal service operation as quickly as possible*** and minimize the adverse impact on business operations, thus ensuring the best possible levels of service quality
- Process Activities:
 - Detection and Recording
 - Classification and Support (***Matching***)
 - Investigation and Diagnosis
 - Resolution and Recovery
 - Ownership, Monitoring, Communication and Escalation
- Definitions
 - **Incident**: Any event that is not part of the standard operation of a service that causes, or may cause, an interruption to, or a reduction in, the quality of that service
 - **Workaround** is a method of avoiding an Incident or Problem
 - **Escalation**: Functional, Hierarchical

Problem Management

- Goal
 - To minimise the impact of disruptions to IT Services and to **prevent the occurrence and recurrence of Incidents by identifying the root cause of Incidents and Problems.**
- Process Activities
 - Problem Control
 - Identification and Recording
 - Classification
 - Investigation and Diagnosis
 - Error Control
 - KE Identification and Recording
 - Assessment
 - Resolution Recording
- Definitions
 - “A **problem** is the unknown underlying cause of one or more incidents”
 - “A **known error** is an incident or problem for which the root cause is known and for which a temporary workaround or permanent fix has been identified.

Configuration Management

- Goal
 - To provide a logical model of the IT Infrastructure by identifying, controlling, maintaining and verifying the versions of all Configuration Items in existence with the organisation and determining the relationships between those items.
- Process Activities
 - Planning
 - Identification
 - Control
 - Status Accounting
 - Verification and Audit
- Process Terminology
 - Configuration Item (CI)
 - CI Attribute
 - Describes a CI
 - CI Relationships
 - Parent, child, Connected to, user of
 - Baseline
 - Snapshot of a known working configuration
 - Naming Conventions
 - Unique, Clearly Visible
 - Consistent within the Organisation
 - Scalable with Growth

Change Management

- Goal
 - To ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of any related Incidents upon service.
- Process Activities
 - Initial Logging and filtering
 - Assessment and Approval
 - Scheduling
 - Authorization
 - Change Review and Closure
- Terminology
 - **(RFC)** Request for Change
 - **(CAB)** Change Advisory Board
 - **(CAB/EC)** CAB Emergency Committee
 - **(FSC)** Forward Schedule of Changes
 - **(PSA)** Projected Service Availability

Release Management

- Goal
 - To take a holistic view of change to an IT service and ensure that all aspects of a Release into the live environment, both technical and non-technical, are considered together
- Process Activities
 - Build and Test
 - Implementation
- Definitions
 - A **Release** is a collection of authorized changes to an IT Service
 - The **Definitive Software Library (DSL)** is the library in which the original, definitive authorized versions of all software CIs and source code are stored and protected.
 - The **Definitive Hardware Store (DHL)** is a secure area holding spare definitive hardware CIs



Planning for Race 2:

Prioritization and Resolution Strategies

Prioritization

- Priority 1:
 - Brake Balance 14 km/h
 - Data Transmission 14 km/h
 - Engine Control Unit 14 km/h
 - Performance Monitoring 12 km/h
- Priority 2:
 - RF Communications 12-4 km/h
 - Traction Control 11 km/h
 - Engine Monitoring Plus 10 km/h
 - Hydraulics 10 km/h
 - Fuel Mixture 9 km/h
 - Engine Mapping 9 km/h
 - Rev Limiter 6 km/h
- Special Services: *Impact during Pit Stop Only*
 - Fuel Rig Operations 10 Sec
 - Launch Control 10 Sec

Benefits:

- Effective resource utilisation
- High availability of Critical Services

Resolution Strategies

- Have we seen this error before?
 - Can we reuse a previous Answer?
- Is it a high Priority?
 - What is the agreed Service Level?
 - Do we buy time with a Temporary Fix?
 - When do we buy a Solution?
- Is it a low Priority?
 - What is the agreed Service Level?
 - Do we leave IT Support Team to resolve?
 - When do we buy a Temporary Fix / Solution?
- Is it a Special Service?
 - When is this a priority?
 - What are the Race Clock based Actions

Event Monitoring

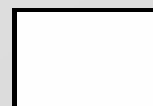
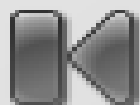
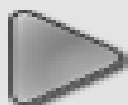
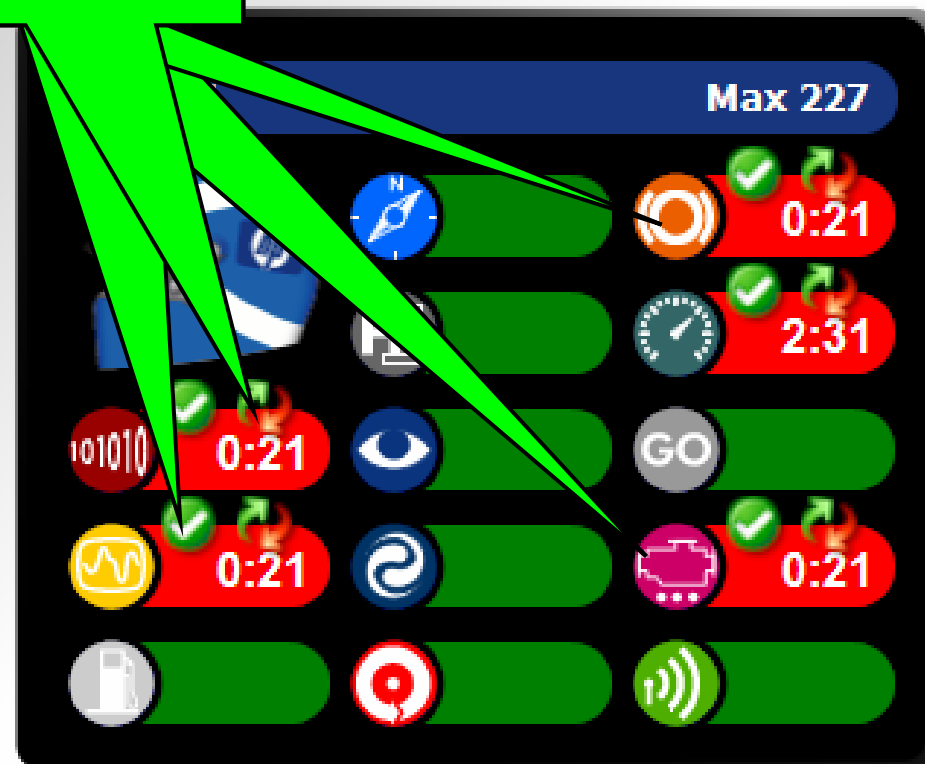
Related Incidents

Features

- Event Correlation
- Threshold Alarms

Benefits

- Improved Incident Detection + Recording
- More effect Diagnosis of root cause
- Automated Tracking and Monitoring
- Support for Notification and Escalation





Event Record

Inc. #	Cars	Business Service	Application	Priority
1	1, 2	Rev Limiter	Andretti	2
2	1, 2 1,2,3	Fuel Mixture Traction Control	Rosberg Clark	1

Benefits:

- Tracking and Monitoring
- Communication
- Escalation
- Input to Trend analysis and reporting

Known Error Database

Known Error Database
(Race 2)

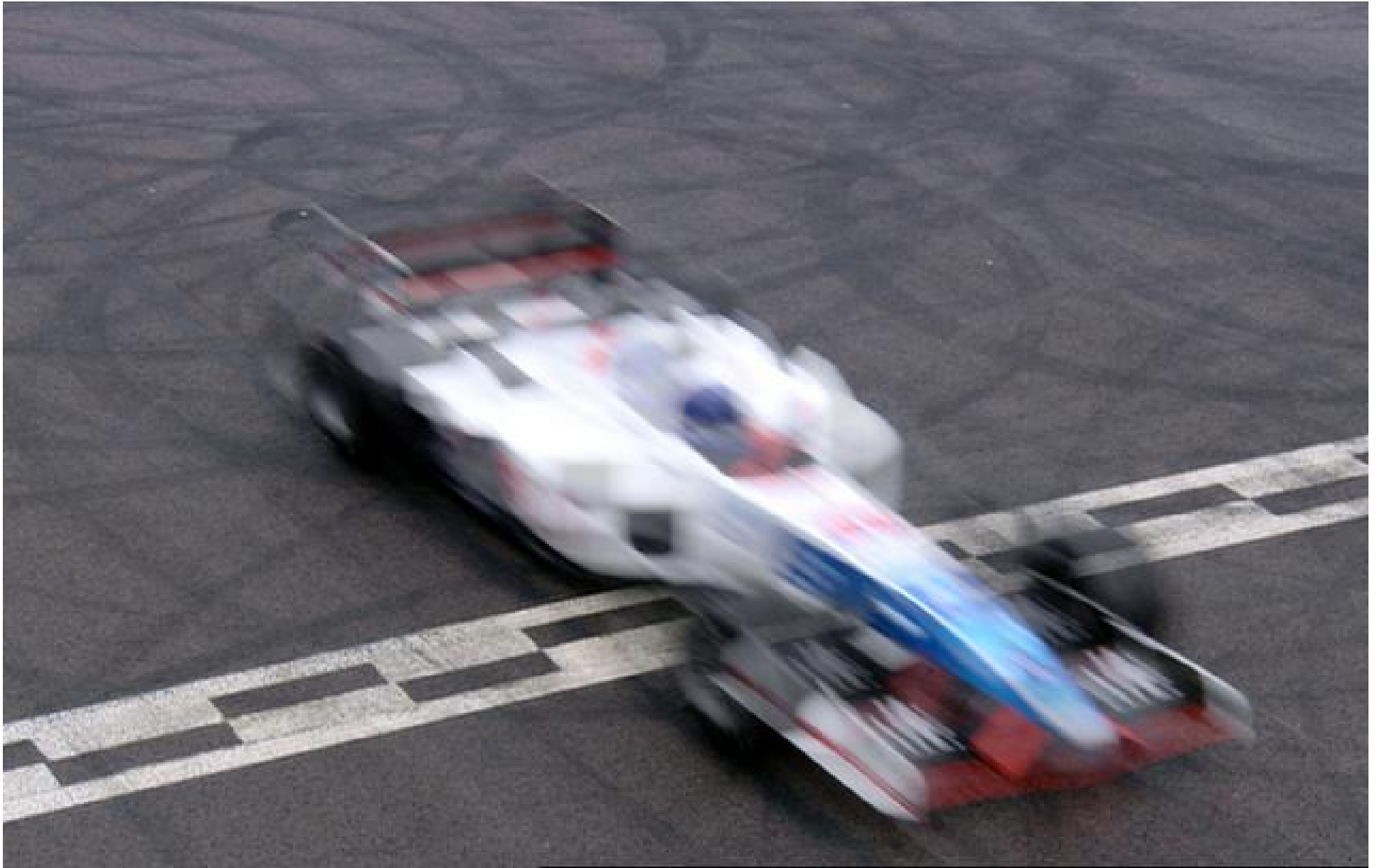
Question	Answer
8	6
10	Domino 4:2
14	64
31	FD
56	35.35
93	3 Kg
106	6
112	94
143	201
151	0

Benefits

- More effective resource utilisation
- Provides for improved efficiency in Incident Resolution (Matching)
- Improved Customer Satisfaction



Prepare for Race 2:



Performance Review Race 2:



The Balanced Score Card (Race 2)

Business Performance

- Race Points
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- Support Costs
- Profit and Loss

IT Performance

- Customer Satisfaction
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People and Process

- Roles and Responsibilities
- Communication / Teaming
- Process Management (ITIL)
 - Service Desk (Function)
 - Incident and Problem Mgmt

 - Change Config. Release Mgmt
 - Financial Service Level, Mgmt

Tools

- Incident Record
 - Service Priority Matrix
 - Resolution Strategy
- System Solution Log (KEDB)

Service Delivery Processes

Balance between SLR and SC

Analysis and Planning
Maintainability and Serviceability
Redundancy and Resilience

A balance between current and future Service Level requirements and the Capacity to Deliver... Resource utilization

Continuity of Business Critical Services- Disaster Recovery

Budgeting, Accounting, and Charging

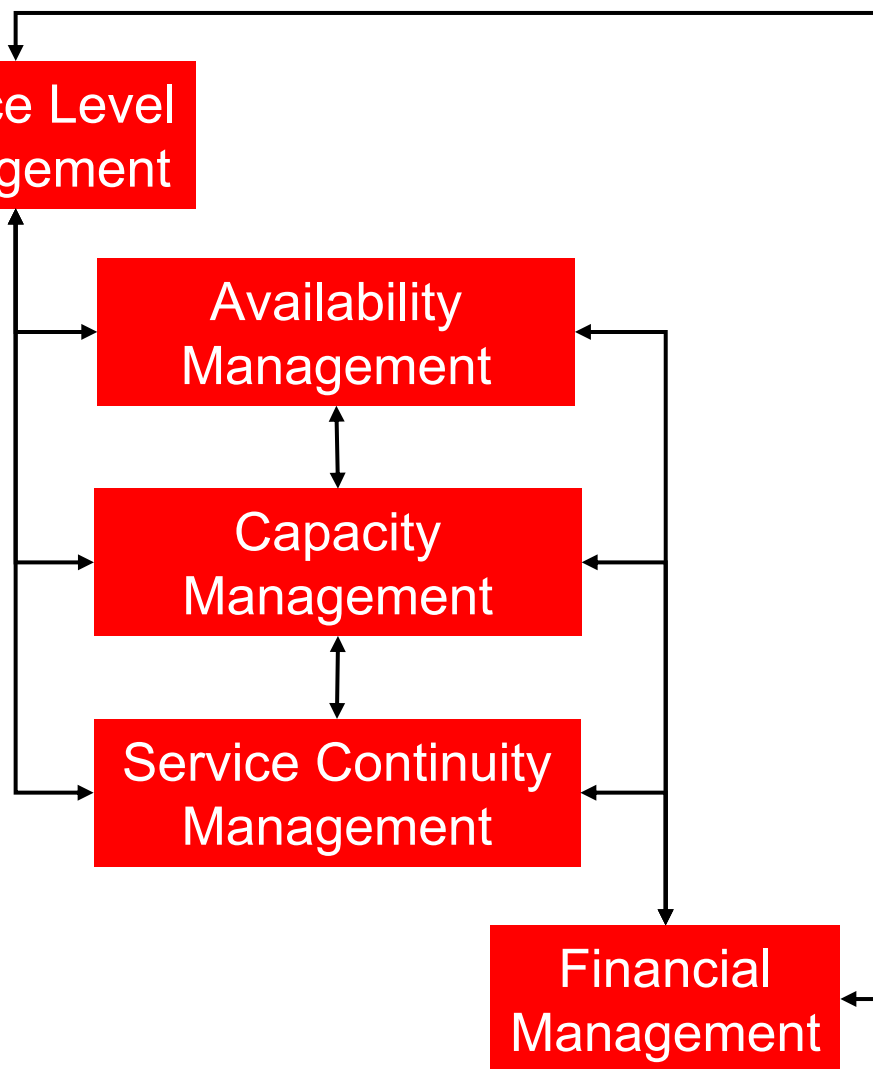
Service Level Management

Availability Management

Capacity Management

Service Continuity Management

Financial Management



Service Level Management

- Goal
 - To maintain and gradually improve business aligned IT service quality, through a constant cycle of agreeing, monitoring, reporting, and reviewing IT service achievements and through instigating actions, to eradicate unacceptable levels of service
- Process Activities
 - Negotiation
 - Service Level Reporting
 - Service Improvement
- Terminology
 - Service Level Requirements
 - Service Catalog
 - Service level Agreement
 - Operational Level Agreement (OLA)
 - Underpinning Contract (U/C)

Financial Management

- Goal
 - To provide cost effective stewardship of the IT assets and the financial resources used in providing IT services
- Process Activities
 - Budgeting
 - Accounting
 - Charging
- Definitions
 - Budgeting (mandatory)
 - Forecasting, control and monitoring of expenditure
 - IT Accounting (mandatory)
 - Enables IT to account for where money is spent on running the department and providing services
 - Charging (optional)
 - Billing customers for services
 - Differential Charging
 - Setting different charges during specific periods. Used to influence Demand



Availability Management

- Goal
 - To optimize the capability of the IT infrastructure and supporting organization to deliver a cost effective and sustained level of availability that enables the business to satisfy its objectives
- Process Activities
 - Analysis
 - Trend, Risk
 - Reporting
- Terminology
 - Availability (%of Coverage hrs)
 - Proportion of agreed service hours a customer can access a service
 - Reliability (MTBF/MTBSI)
 - Freedom from operational failure
 - Maintainability (MTTR)
 - Restoration and repair times
 - Serviceability (Supportability)
 - Security
 - Confidentiality, Integrity and Availability to authorized personnel only)

Capacity Management

- Goal
 - To ensure best use of the appropriate IT Infrastructure to cost effectively meet business needs by understanding how IT services will be used and matching IT resources to deliver these services at the agreed levels currently and in the future.
- Process Activities
 - Performance Management
 - Workload Management
 - Application Sizing
 - Resource Management
 - Demand Management
 - Modeling
 - Planning
- Terminology
 - Business Capacity Management
 - Future requirement planning
 - Service Capacity Management
 - Current requirement planning
 - Resource Capacity Management
 - Utilization of component parts

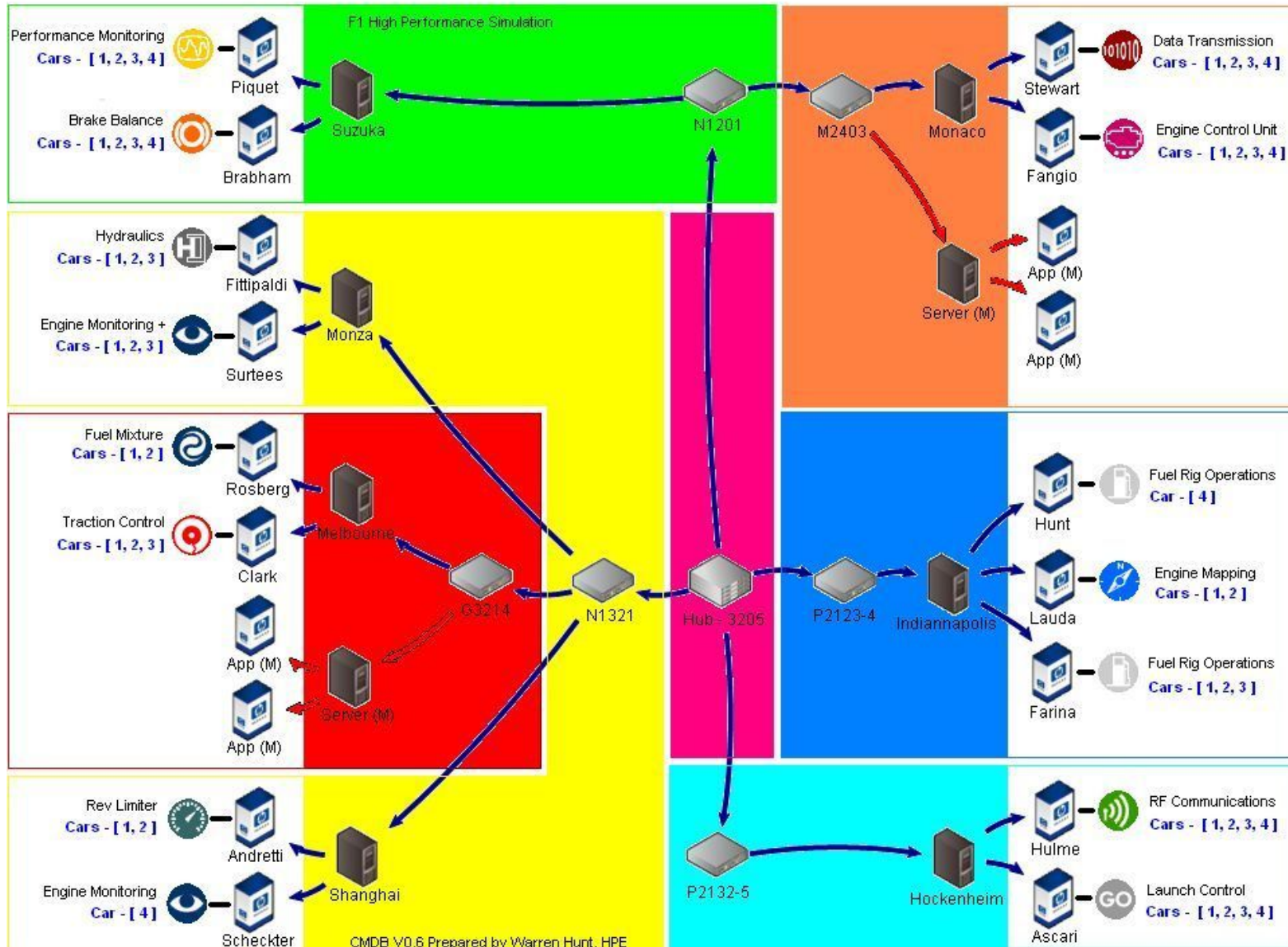
IT Service Continuity Management

- Goal
 - To support the overall Business Continuity Management process by ensuring that the required IT technical and services facilities can be recovered within required and agreed business time scales
- Process Activities
 - Business Impact Analysis
 - Risk Assessment
 - Business Continuity Strategy
 - Implementation
 - Assurance (Awareness Testing, Training, Change)
- Terminology
 - Immediate recovery – hot standby (<24 hrs)
 - Intermediate recovery – warm standby (24-72 hrs)
 - Gradual recovery – cold standby (>72 hrs)



Prepare for Race 3

Configuration Management Data Base





Prepare for Race 3:



Performance Review Race 3:



The Balanced Score Card

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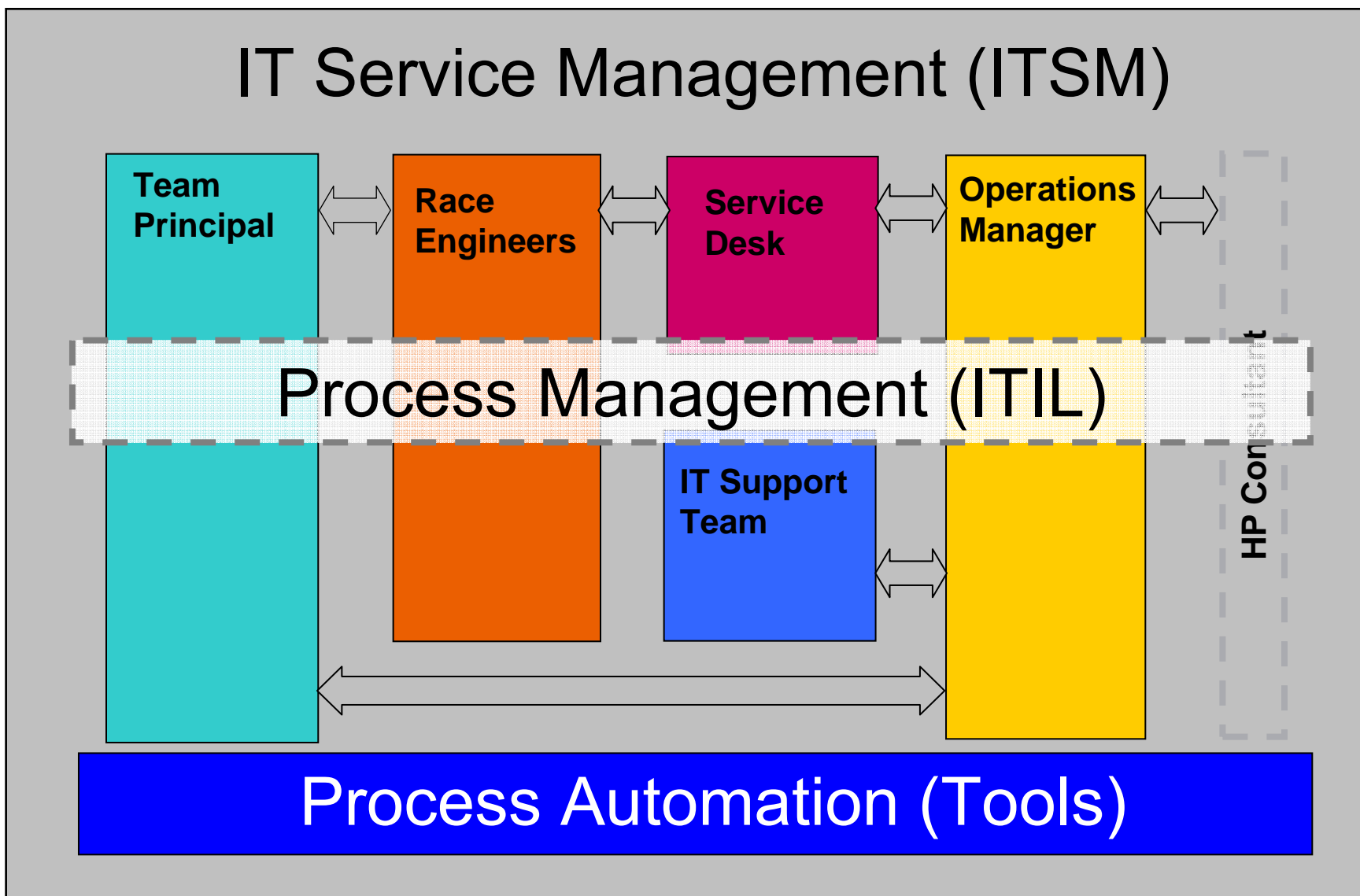
People and Process

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Tools

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The Simulation experience



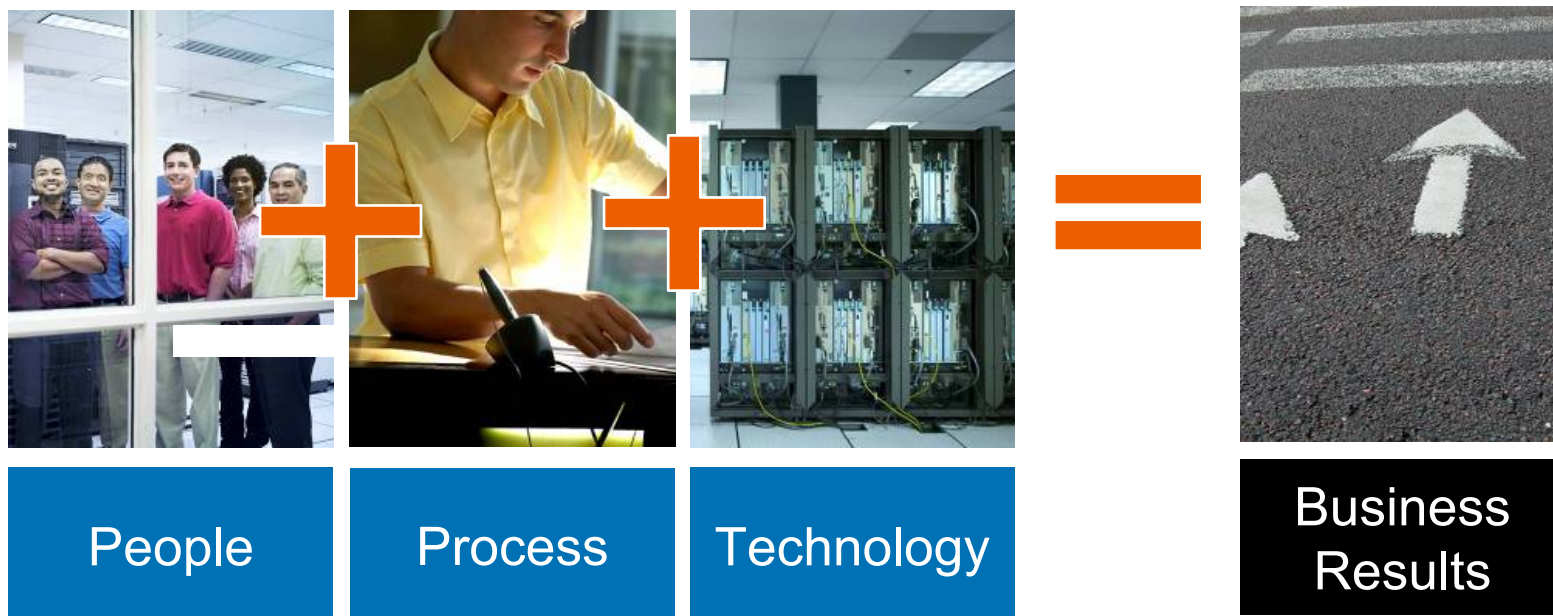


Closing Discussion

Extra Slides FYI

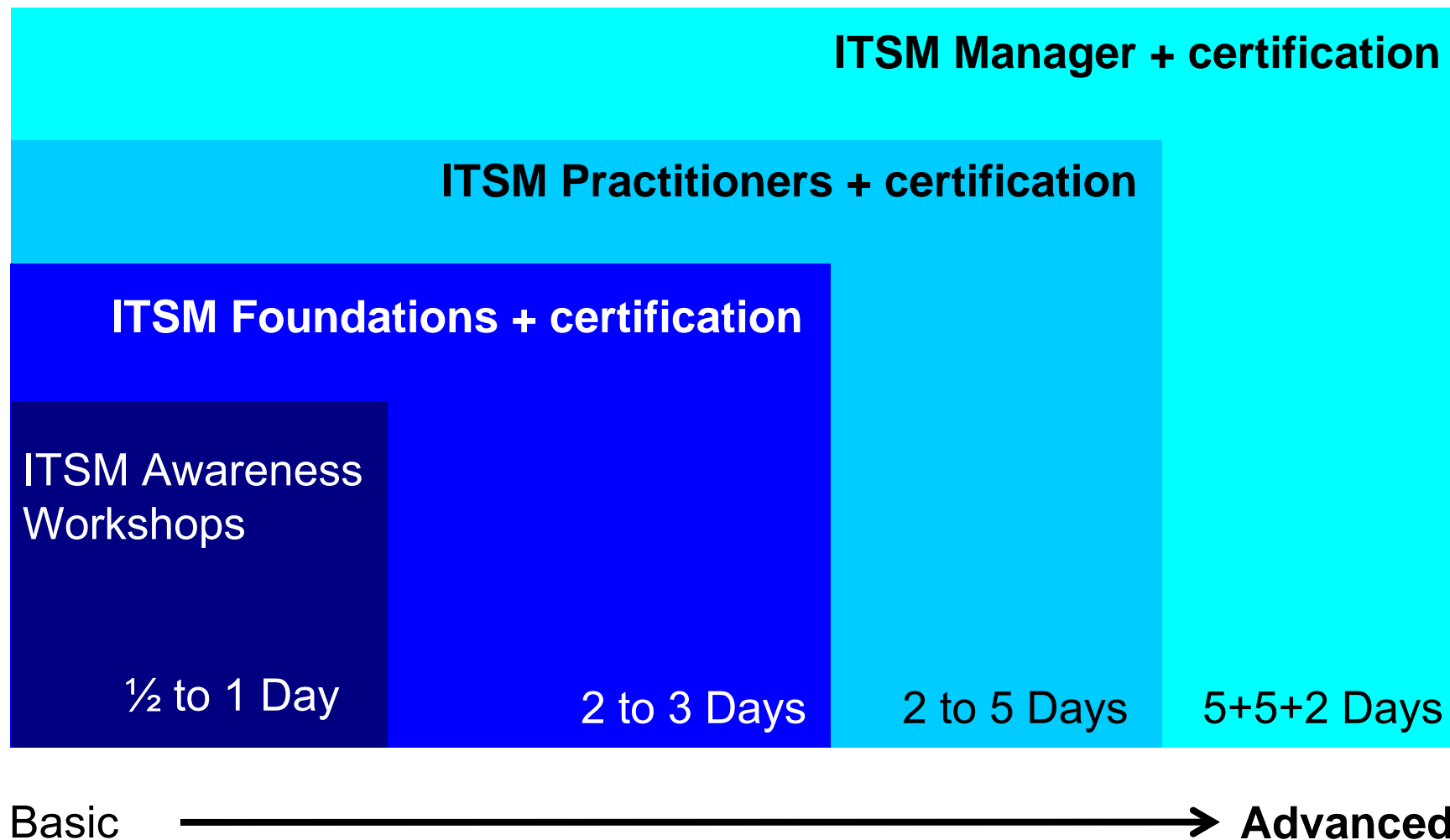
What Customers are Saying

- We appreciate that ITIL/ITSM is critical to our Business Success
- We also see that Education and Training is an agent for Organisational Change.
- It is vitally important that the People understand and Support the ITSM vision.
- BUT... ITIL Training is boring.
- We need a Training Solution that is integrated into the business initiatives.. that brings value to the Organisation...





Individual Certification

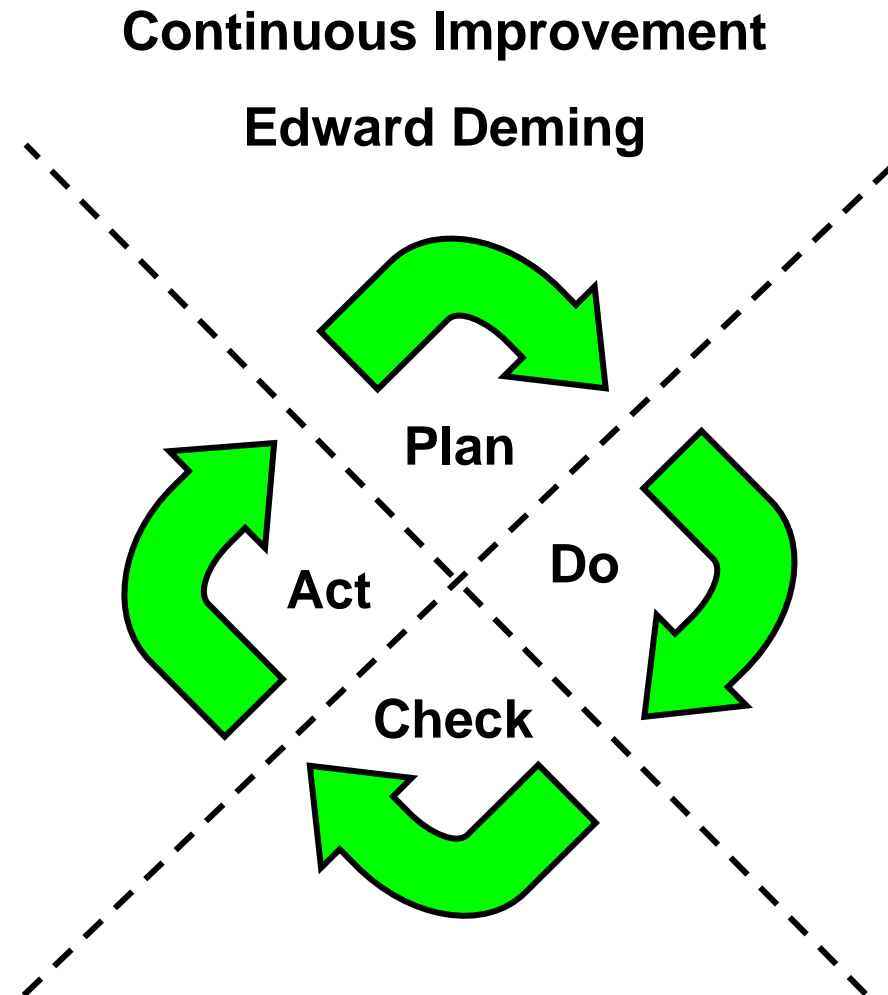


What is BS 15000 / ISO 20000?

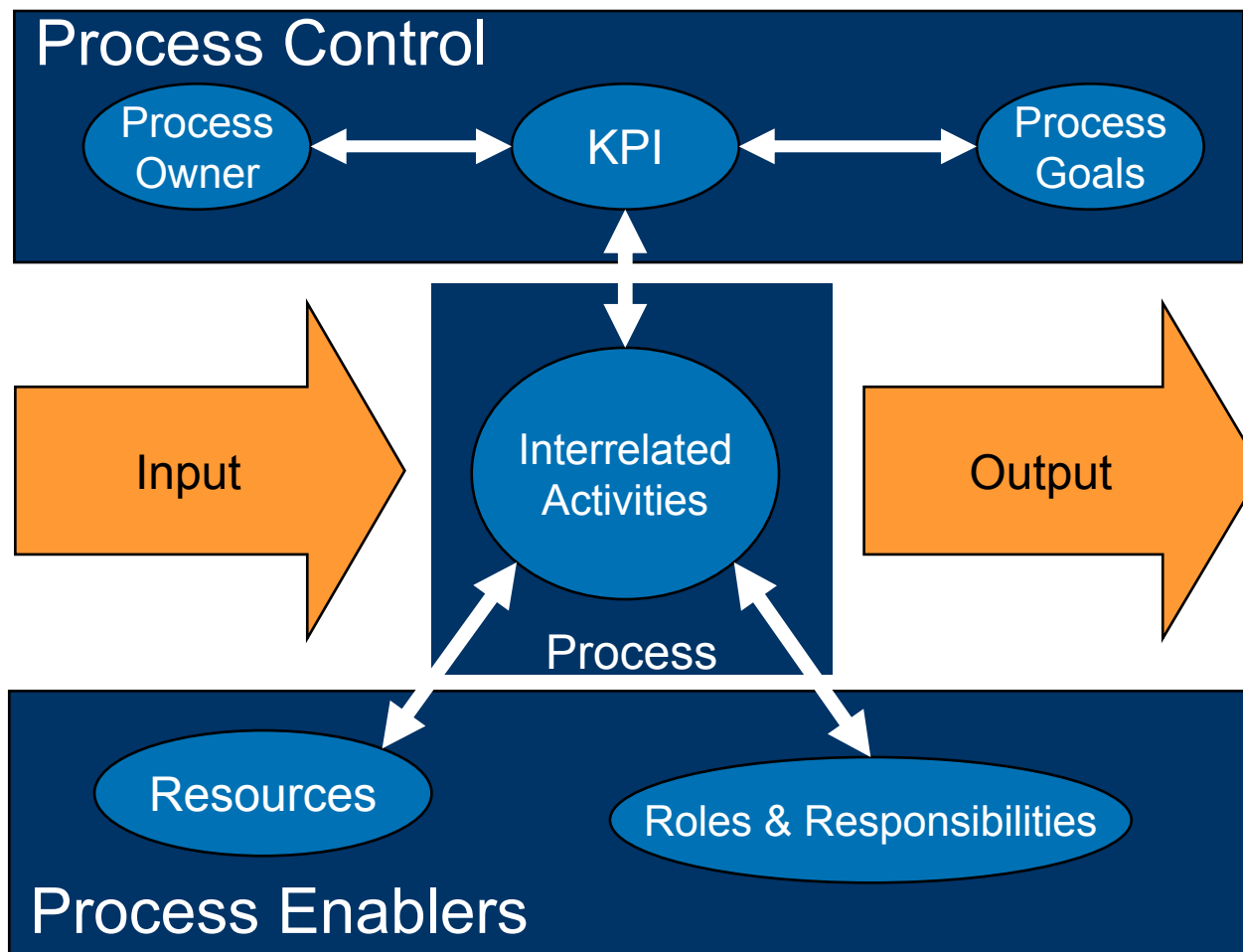
- BS 15000 is the first formal standard specifically aimed at IT Service Management, and has recently been adopted as ISO 20000
- BS 15000, ISO 20000 defines a level of quality for ITSM activities which can be audited
- The standard looks for a fixed feedback loop
 - Plan – **Plan Service Management**
 - Do – **Implement and Run Service Management**
 - Check – **Monitor Measure and Review**
 - Act – **Continuous Improvement**
- BS 15000, ISO 20000 Certification provides a basis for proving that an organisation has implemented best practises and are using them consistently across the organisation

The Approach

- **Plan**
How to implement improvements in the next Race
- **Do**
Play the Simulation and Apply the learning
- **Check**
Review Performance against the Balanced Score Card
- **Act**
Think about how Performance might be improved



Process Theory



A process can be defined as a series of related actions, activities, performed with the purpose of achieving a defined goal.

Process control can similarly be defined as the process of planning and regulating, with the objective of performing a the process in an effective and efficient way.

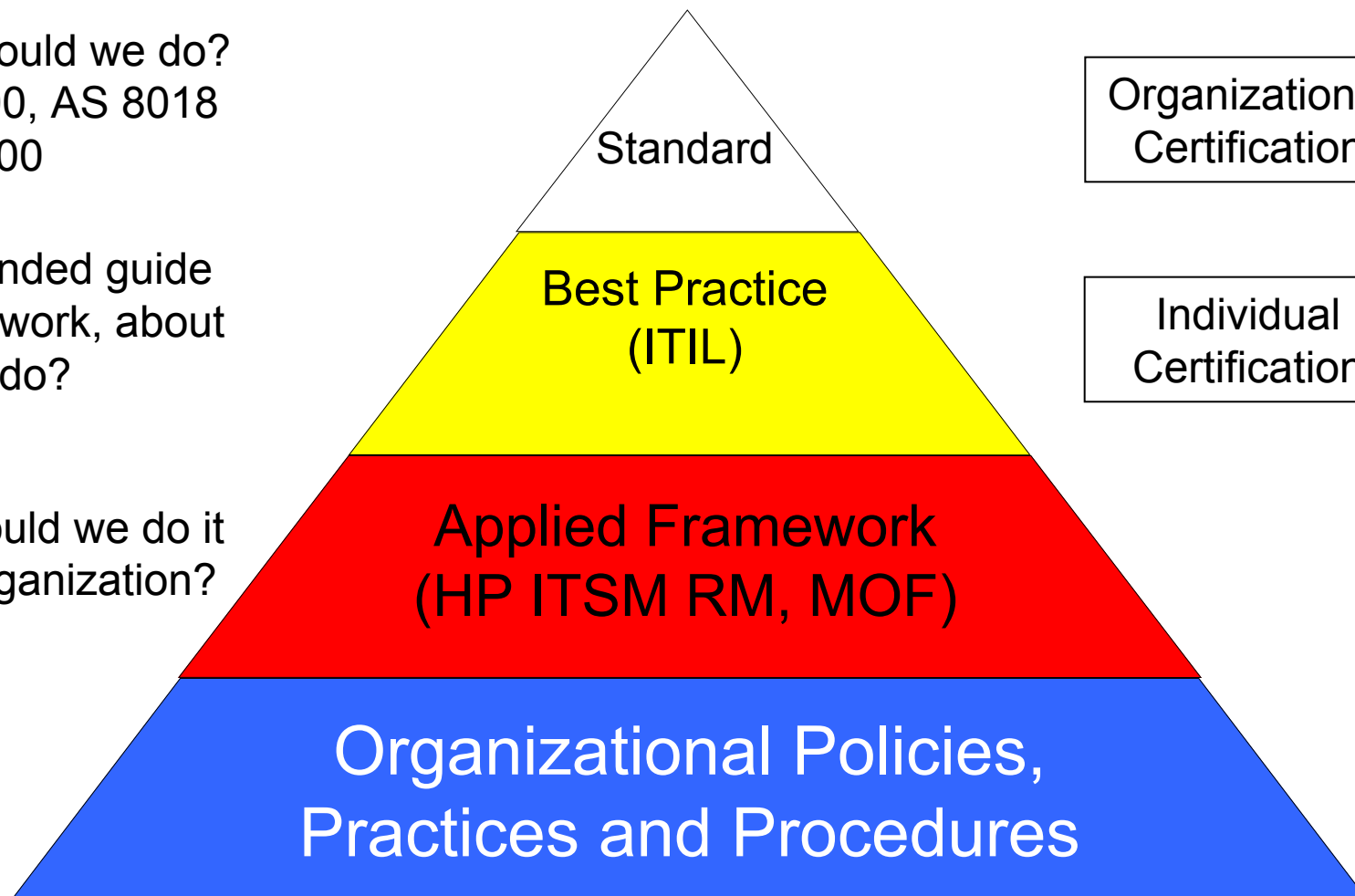
Process Enablers include People and Tools

Where Does Best Practice Fit?

What should we do?
BS 15000, AS 8018
ISO 20000

An expanded guide
or framework, about
What to do?

How should we do it
in our organization?



IT Service Management



20%

- **Technology (Tools)**

- Process automation
- Service enablement

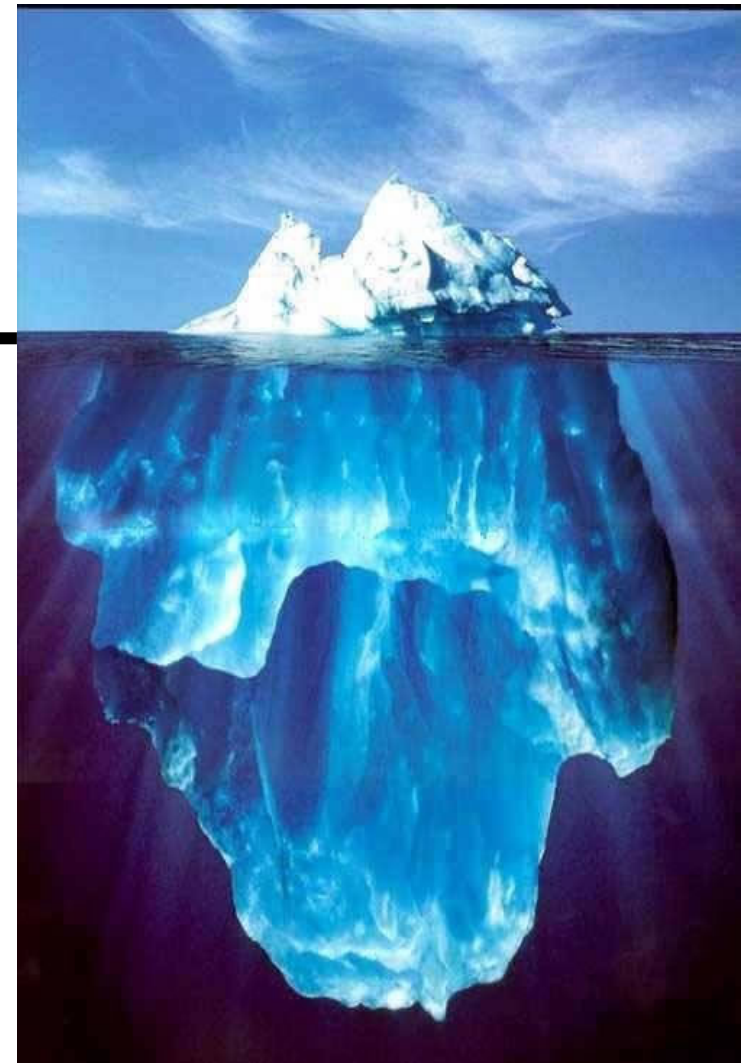
80%

- **Process**

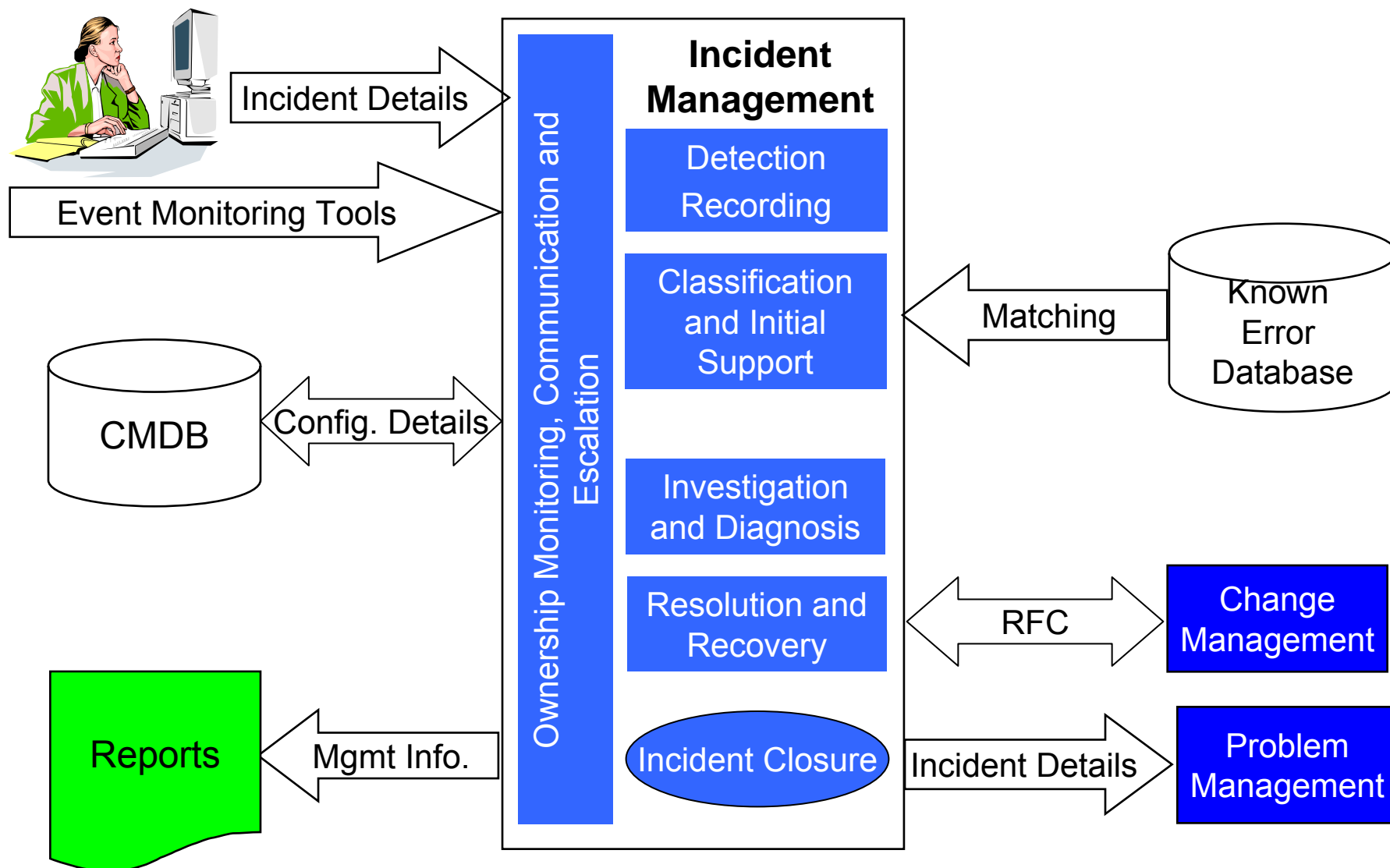
- A common Language
- A quality approach
- End to End Service Management

- **People**

- Cultural and Behavioral Change
- Leadership and Commitment
- Defined Roles and Responsibilities
- Support and Communication
- Skills Development and Training



Inputs, Outputs, and Activities



Inputs, Outputs, and Activities

