

THE ART OF MANAGING FORENSIC LABORATORIES

The Scientist's Guide to Becoming an Effective Manager

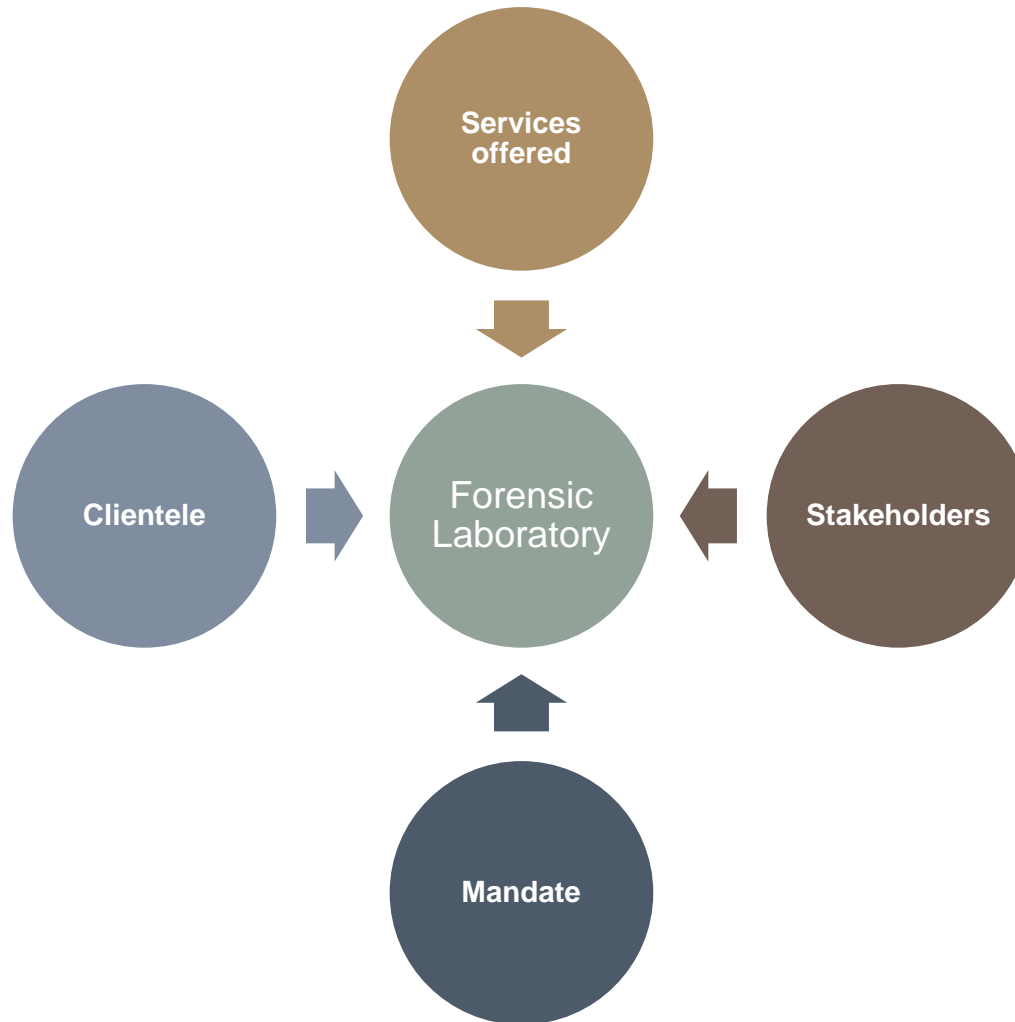
Mahmoud Abed (BSc, MMSc.)

Forensic Specialist – Royal Canadian Mounted Police
Director and Lead Consultant – Vorto Vision Consulting

Agenda

- Why management and forensics
- The business of forensic sciences
- Defining success for forensic laboratories
 - Managing client needs
 - Active case management
 - Employee engagement
- Take home message

Forensic Laboratories



Why Management and Forensics

- Most of the advances in the field are focused on the science and not the management of the science
- Lack of standardization and consistency
- Good stewardship of public funds
- Shifting staff focus to the “forensic experience”
- Better customer satisfaction

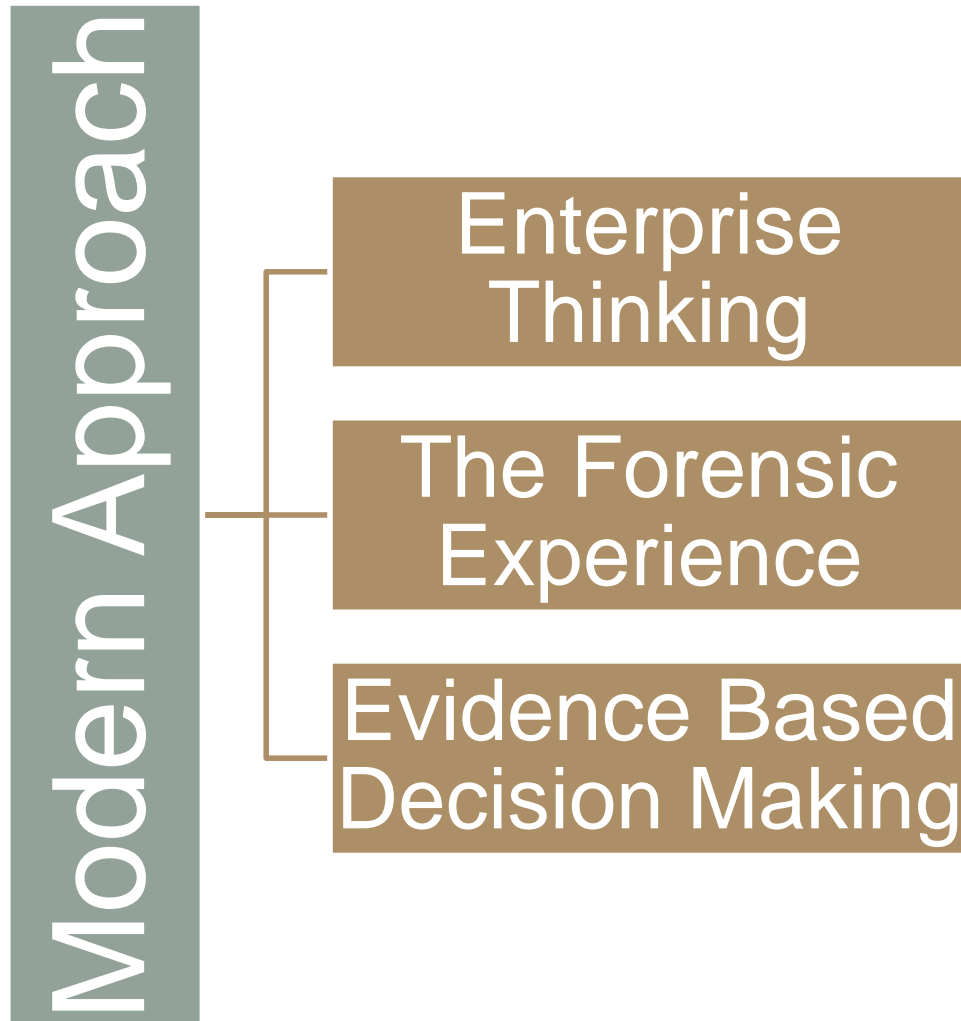
The Business of Forensic Sciences

- Traditional approach to management of forensic laboratories focuses on:
 - Maximizing case work delivery
 - Minimizing cost
 - Addressing HR issues as they arise
- Challenges with the traditional management approach:
 - Reactive
 - No forensic experience (client and staff)
 - Inefficient use of resources/public funding
 - Lack of standardization

The Business of Forensic Sciences



The Business of Forensic Sciences



Defining Success



Success: Managing Client Needs and Expectations

- The increased dependence on forensic science led to the increased complexity of managing the needs and expectations of the clients
- Perception that forensics can answer any question
- Expected quick turn around time

Success: Managing Client Needs and Expectations

- Educate the client on the limitation of the science
 - Forensic science as part of mandatory police training
 - Involve the clients in the introduction of new technologies
 - Joint task forces
- Bridge the gap between the scientists and the clients
 - Open communication avenues: identify forensic questions, select correct exhibits, and discuss results
 - Collaborative approach to casework

Success: Managing Client Needs and Expectations

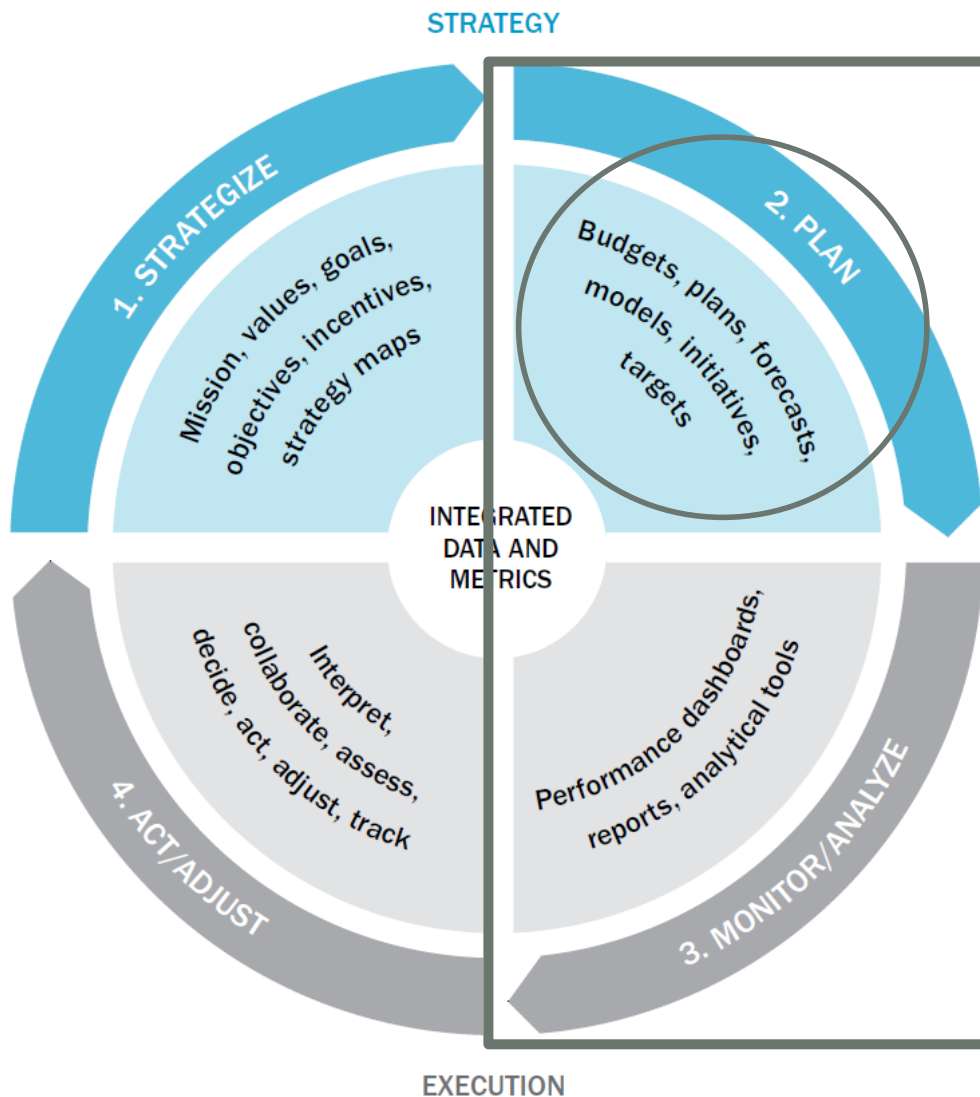
- Bring the laboratory to the crime scene
 - Implement newer technologies immediately at the crime scene
 - Virtual laboratories (through the use of modern technologies)
- Check in with clients
 - Questionnaire about the quality of services provided by the laboratory
 - Trend issues and address them systematically

Defining Success



Success: Active Case Management

- Active case management is a branch of performance management
- Performance management is a discipline that aligns performance with strategy
- Performance management harnesses information technology to monitor the execution of business strategy and help organizations achieve their goals

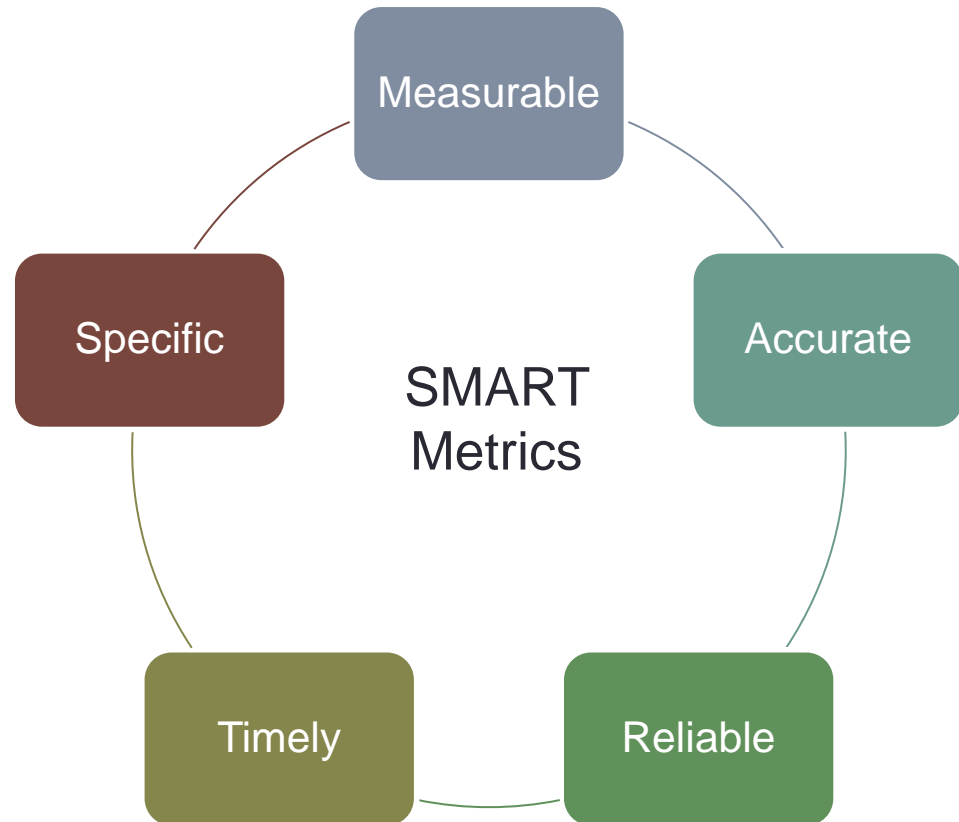


- Performance management is a four-step cycle that involves creating a strategy and plans, monitoring the execution of those plans, and adjusting activity and objectives to achieve strategic goals.

Success: Active Case Management

Planning Stage

- Establish performance metrics



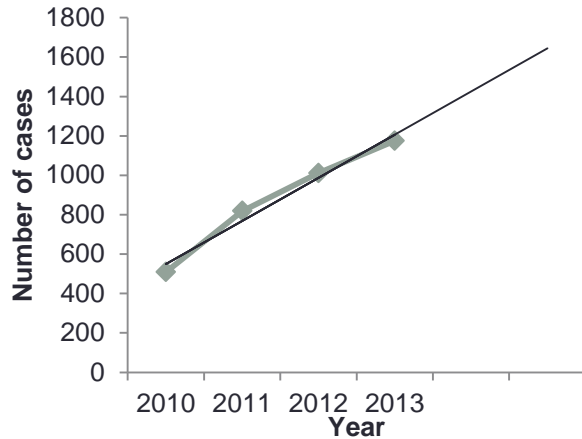
Success: Active Case Management

Planning Stage

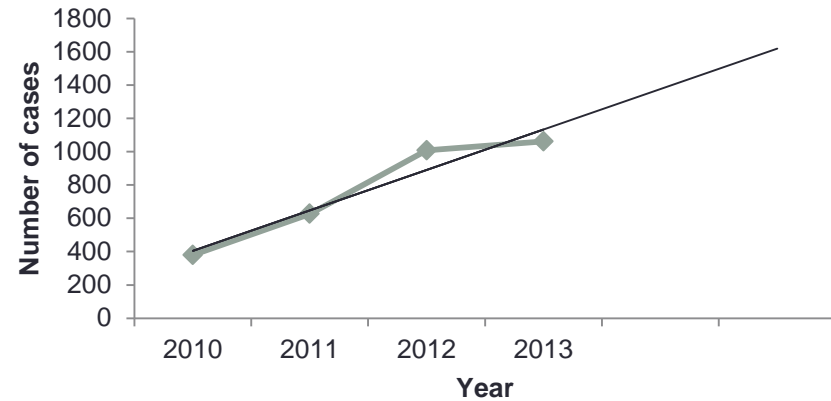
- Forecasting enables management to predict the amount of casework in a given period of time with a high level of accuracy.
- Forecasting will help managers prioritize case work and manage resources accurately.
- Different forecasting models and tools available:
 - Qualitative models
 - Time series analysis and projection
 - Causal models

Example: Forecasting Forensics

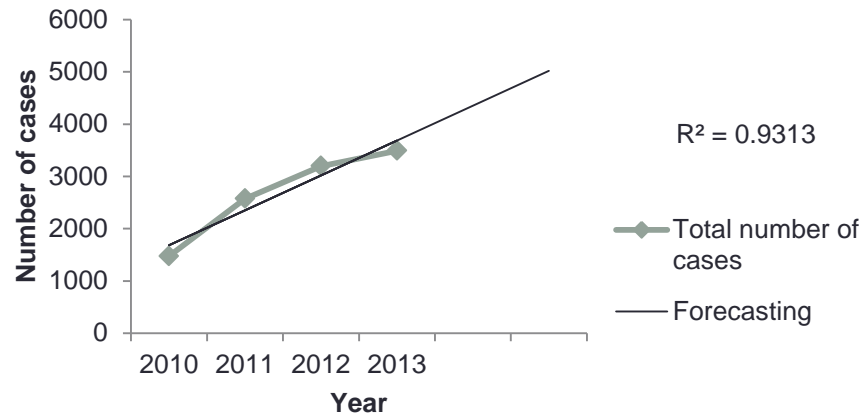
Sexual assault cases

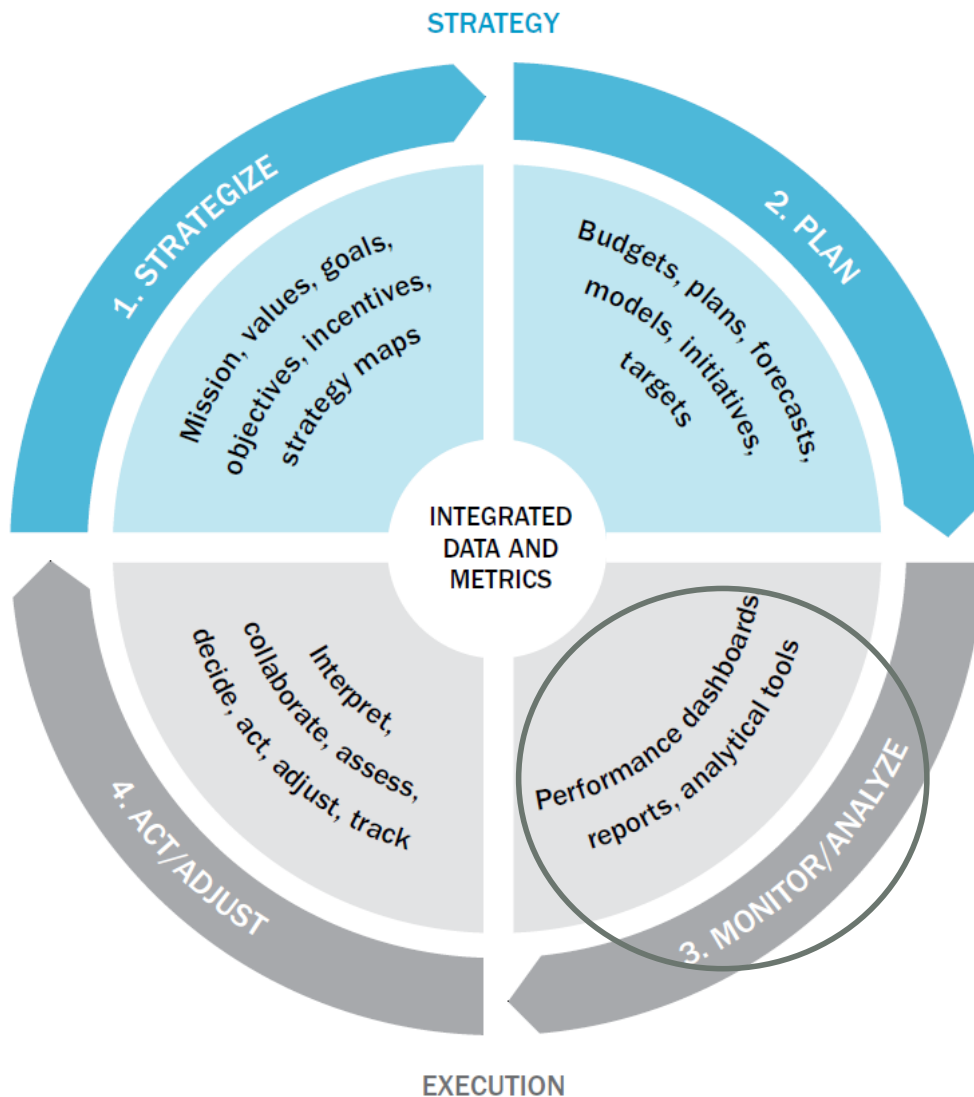


1st degree murder cases



Total number of cases





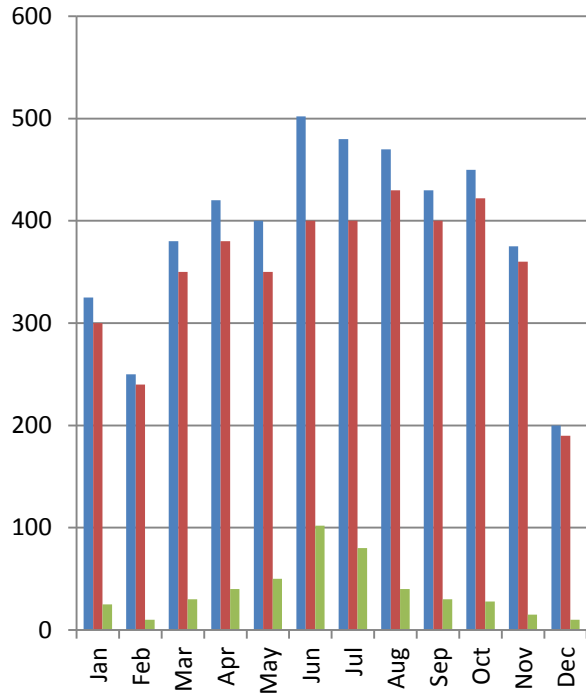
- Performance management is a four-step cycle that involves creating a strategy and plans, monitoring the execution of those plans, and adjusting activity and objectives to achieve strategic goals.

Success: Monitoring and Analysis

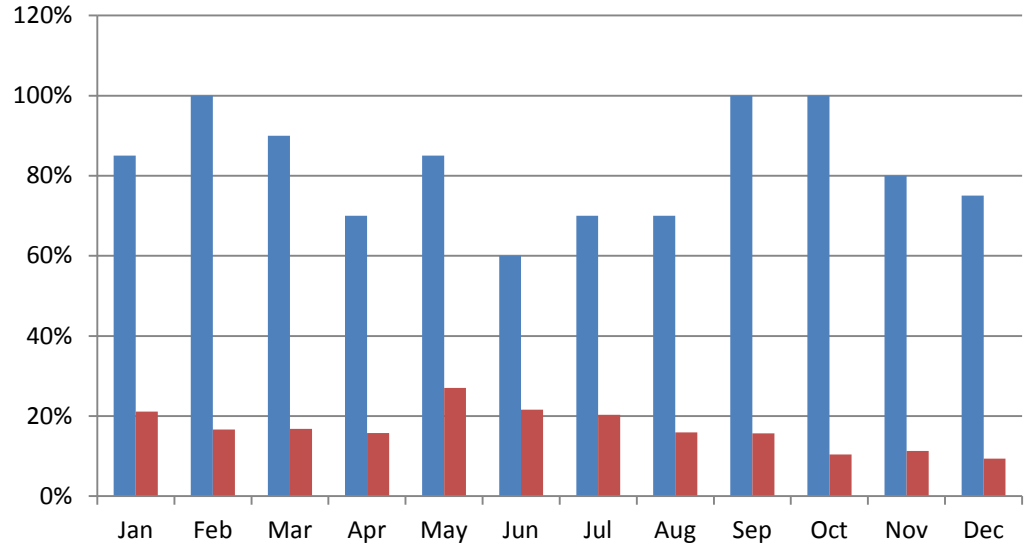
- **Monitoring Stage**
 - Monitor performance at all levels of governance
 - Senior management
 - Middle management
 - Staff

Departmental backlog

- Number of cases received (Biology)
- Number of completed cases
- Backlog (Biology)

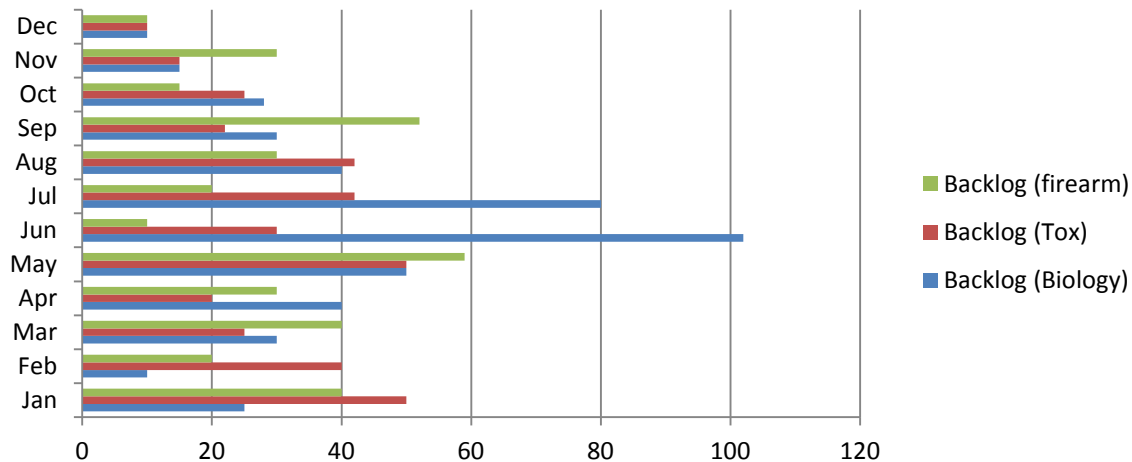


- Available staff
- % backlog



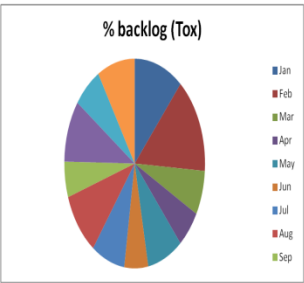
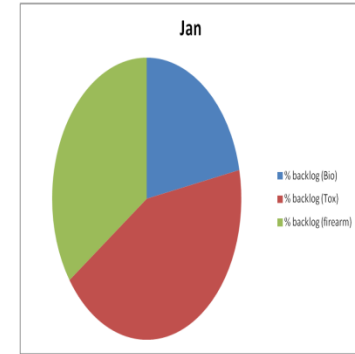
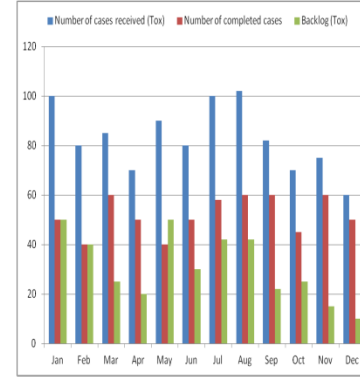
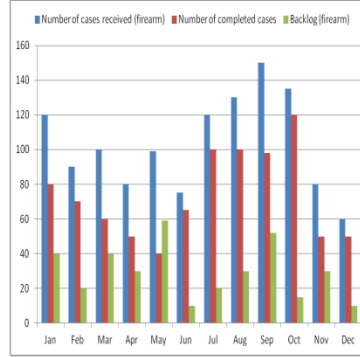
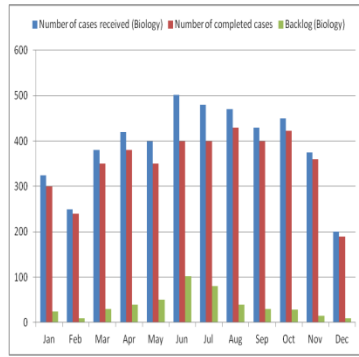
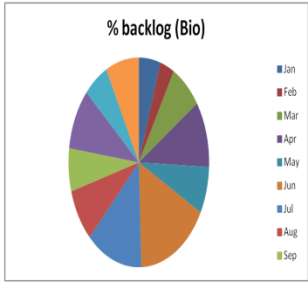
Relation between backlog and staff availability

Comparing the backlog of different departments

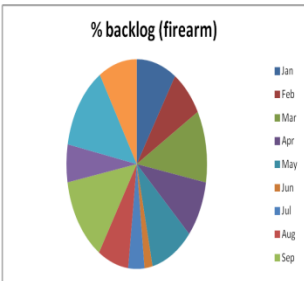
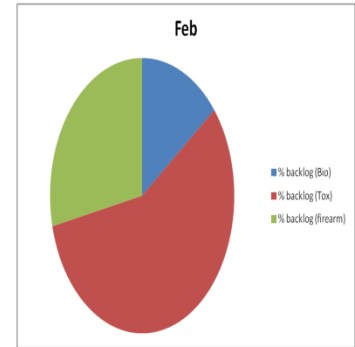
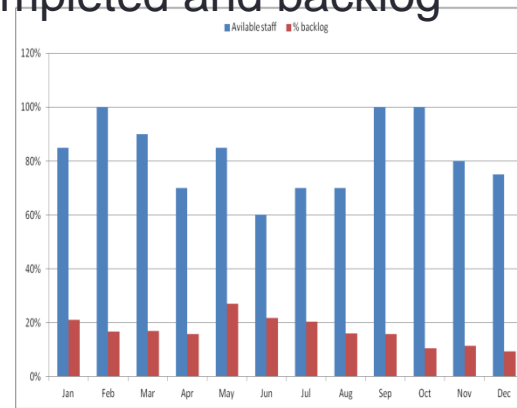
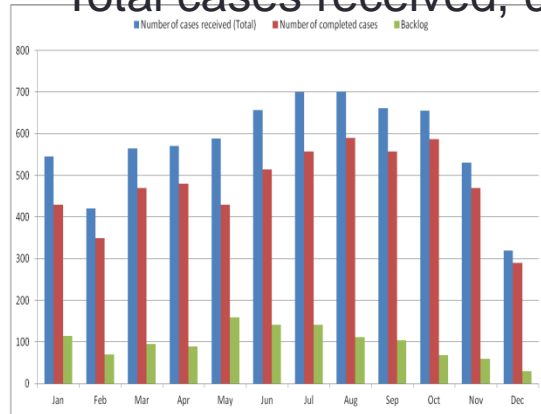


% backlog throughout the year

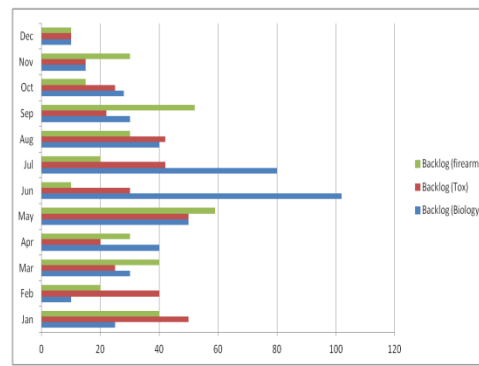
Cases received, completed and backlog for each section



Total cases received, completed and backlog

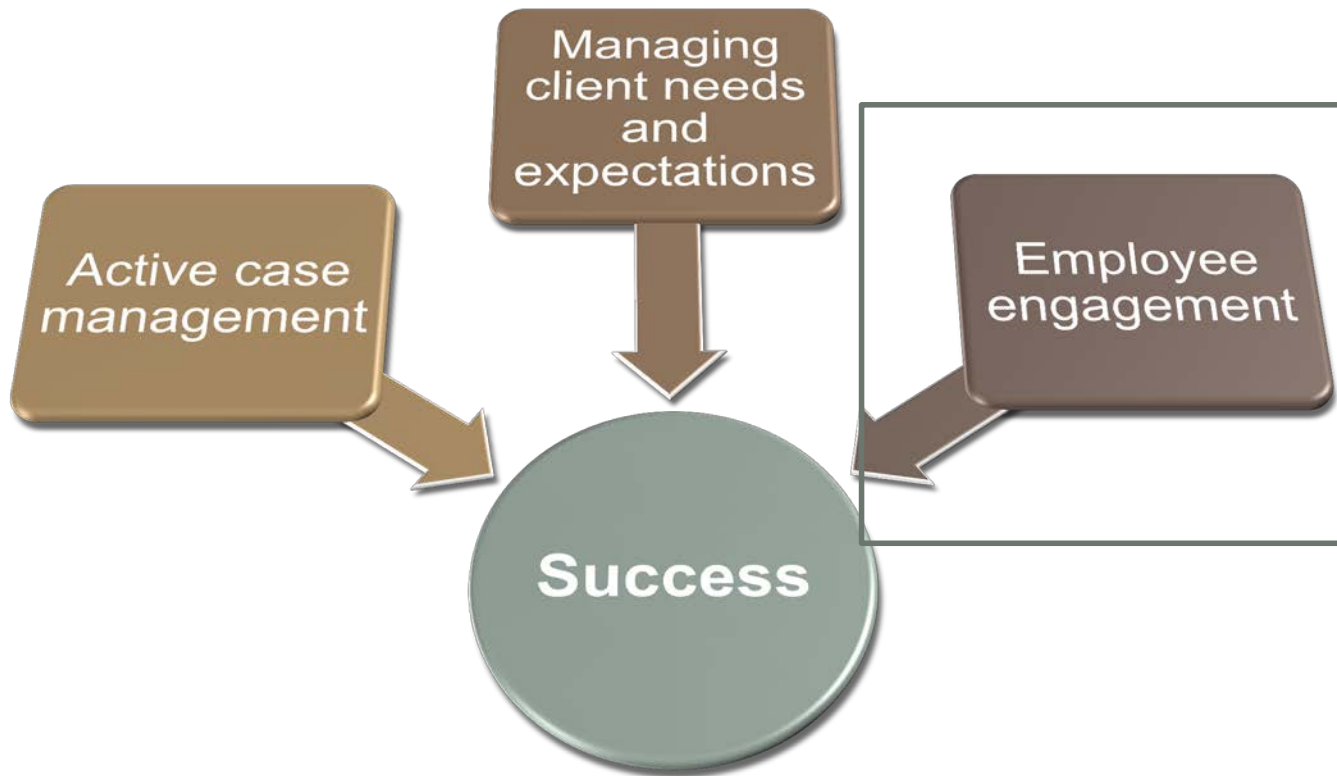


Backlog VS staff availability



% backlog on monthly basis

Defining Success



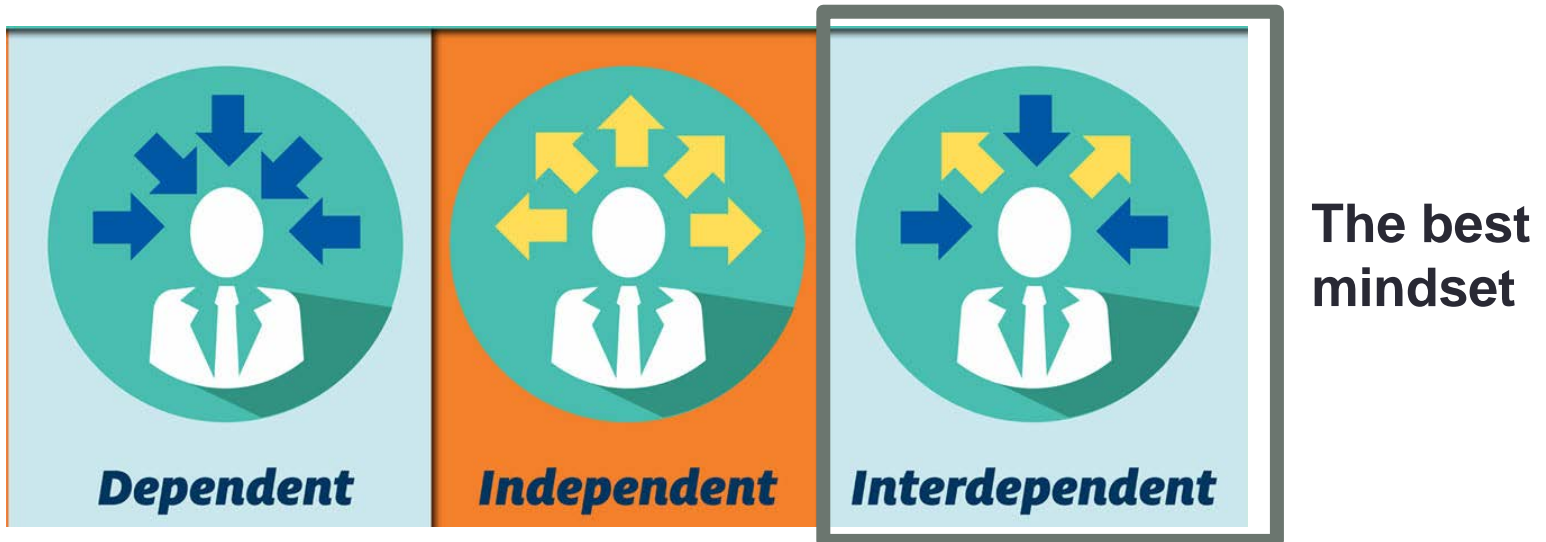
Success: Employee Engagement

- Forensic laboratories' staff possesses specialized training, education and experience
- Unique and challenging occupational exposures
- Employees of the laboratory are its biggest asset

Success: Employee Engagement

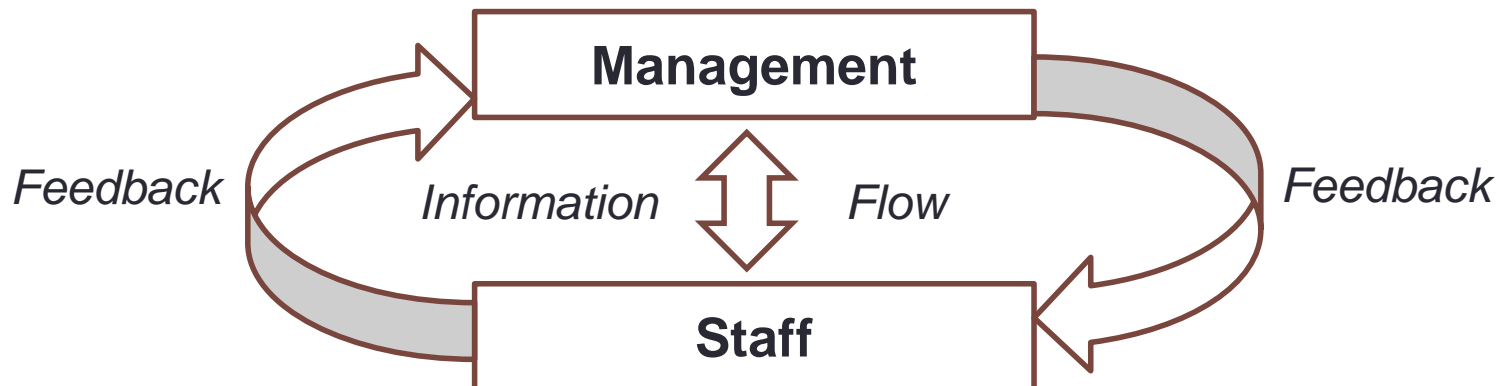
- Create a culture of leadership
 - Management needs to shift their mindset from **directing** their employees, to **empowering** them
 - Delegate decision making to the people with the knowledge.

3 types of leadership mindsets and cultures



Success: Employee Engagement

- Harbor an environment of open communication
- Different models of communication are available. The best model is one that allows two-way communication:



Take Home Message

- *Take control and attract followers; give control and create leaders*



Take Home Message



Thank you