

Enhanced Process Control of Laundry Services in Hospital Authority

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Laundry Services



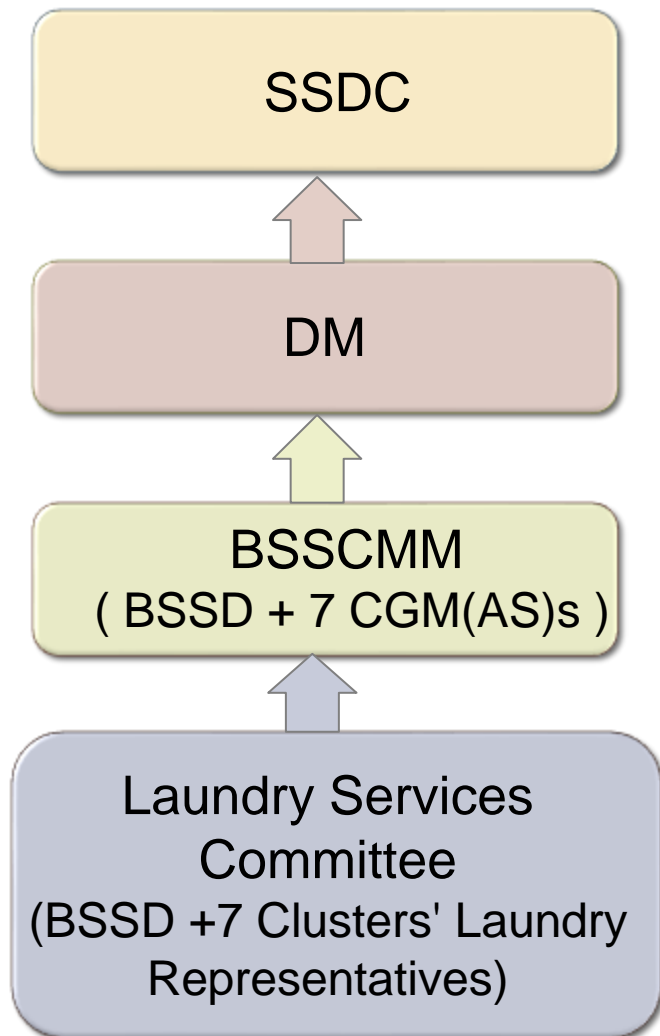
Background

Background

- In 1991:
 - inherited 17 laundries of various size providing in-house services to HA hospitals and some government out-patient clinics
- In 2000:
 - services re-organized and reduced to 10 laundries

Governance Structure

Head Office Level



- Planning and development of laundry services management in HA
- Co-ordination for urgent back-up or contingency support in emergency or disaster situations
- Performance benchmarking

SSDC - Supporting Services Development Committee

DM - Directors' Meeting

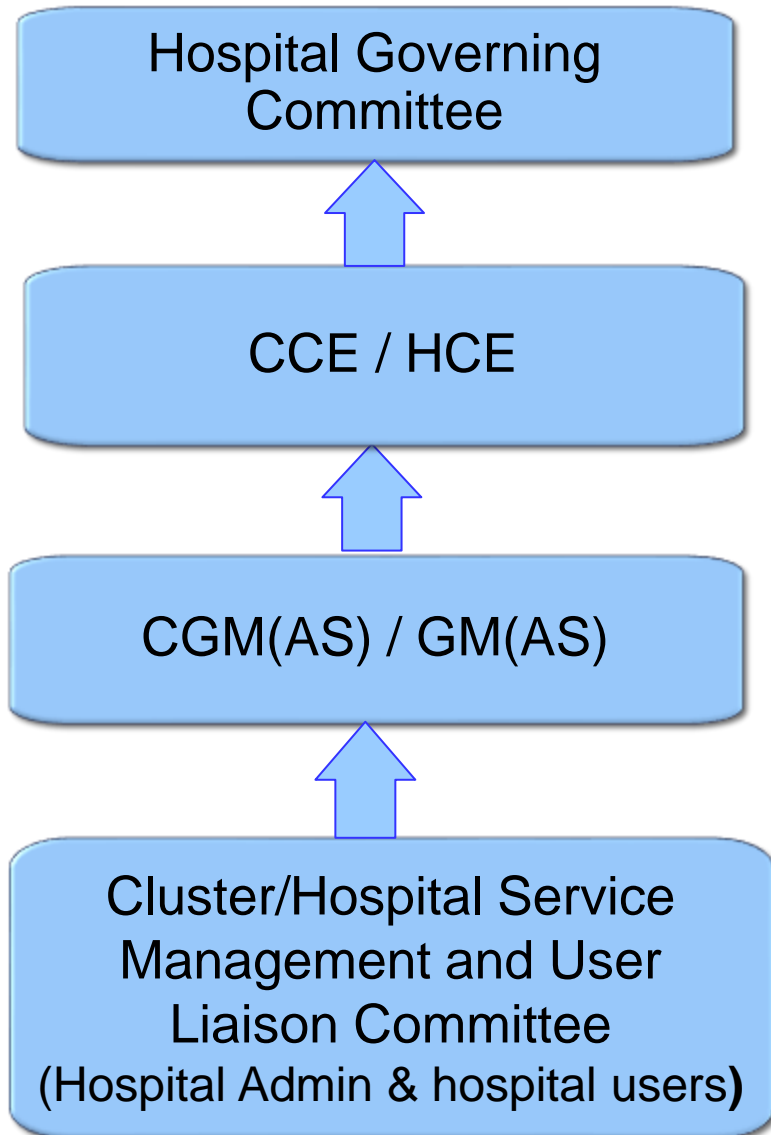
BSSCMM - Business Support Services Corporate Management Meeting

BSSD – Business support Services Department

CGM(AS) - Cluster General Managers (Administrative Services)

Governance Structure

Hospital Level



- Daily operation monitoring and management
- Risk assessment
- Improvement planning

CCE - Cluster Chief Executive
HCE - Hospital Chief Executives
CGM(AS) - Cluster General Managers (Administrative Services)
GM(AS) - General Managers (Administrative Services)

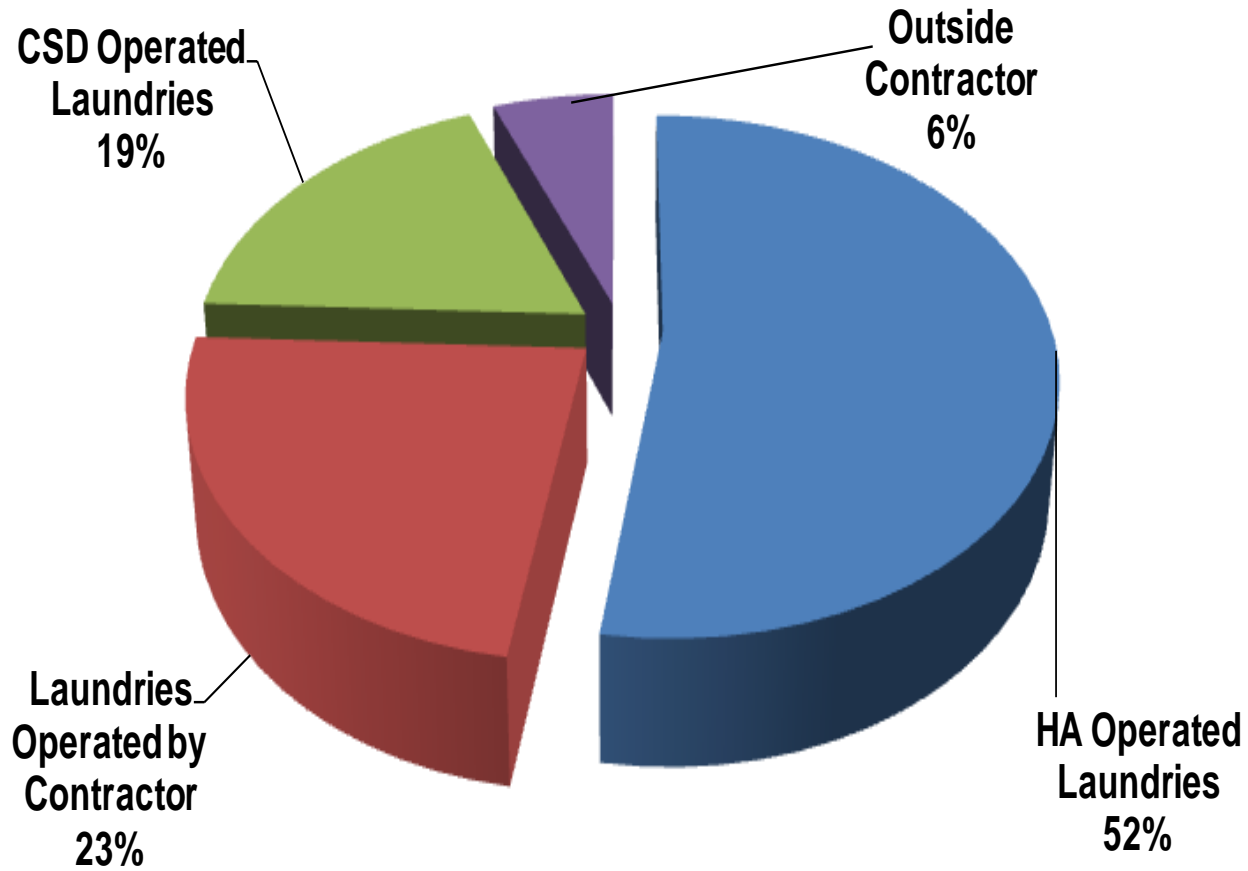
Distribution of 10 Laundries



- 4 HA-operated Laundries
- 3 HA Laundries operated by contractor
- 3 CSD-operated Laundries

Laundry Operation

Mode of Operation (2014/15)



Laundry Operation



Shum Wan Laundry (SWL) Incident

The incident at Queen Mary Hospital in June – July 2015 after investigation revealed that **the source of infection was originated from patient linen.**


Service Monitoring before the SWL Incident (1/3)

1. Regular site inspections with records

- daily production, including soiled linen backlog
- environmental cleansing and housekeeping
- equipment maintenance
- occupational safety and health
- infection control


Service Monitoring before the SWL Incident (2/3)

2. Daily quality control inspections

- visual quality checking 
- rewash rate
- torn linen rejection

Service Monitoring before the SWL Incident (3/3)

3. Washing quality control

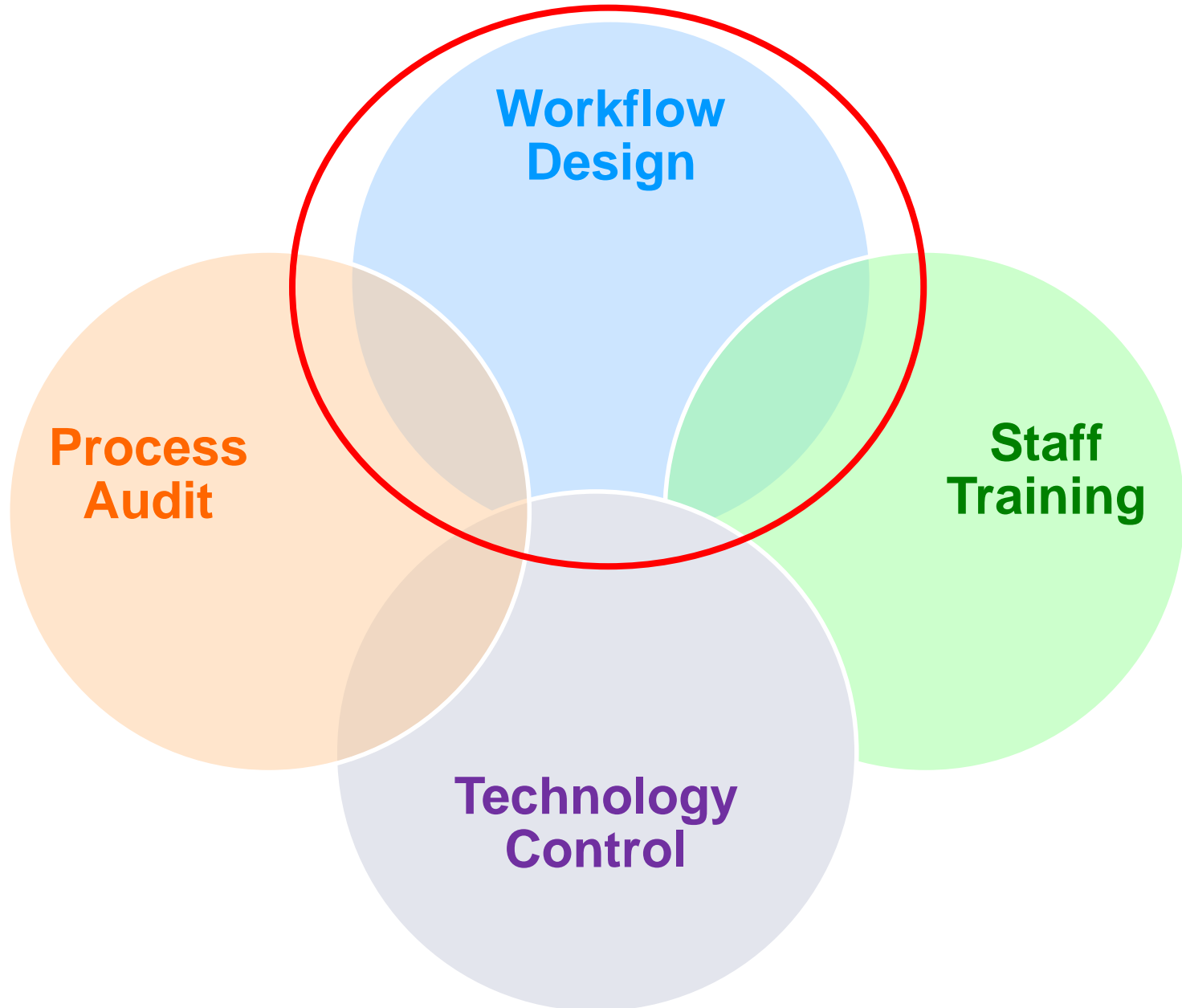
- Arrange monthly test with Drycleaning & Laundry Institute (DLI) (an independent accredited testing centre of the United States)  measuring
 - whiteness degree
 - yellowness
 - blood stain removal
 - soil removal
 - bleach effectiveness
 - tensile strength loss

After the SWL Incident

Review of Laundry Service Management

- Formation of Task Force & Working Groups at HAHO to
 - follow up on the recommendations of the Investigation Panel
 - **conduct an overall review of the monitoring mechanism of laundry operation in HA**
 - review the current mode of operation and propose the future direction for HA laundry services
 - provide input to Chief Infection Control Officer (CICO) on review of Infection Prevention and Control Guidelines for Healthcare Linen

Enhanced Process Control



Workflow Design (1/4)

Laundries



Work Process

- Raised the washing temperature from 71°C to 75°C for 5 minutes as recommended by Chief Infection Control Officer (CICO)
- Stopped the use of starch powder for ironing of staff uniform

Workflow Design (2/4)

Laundries

Work Process


- Strengthening moisture control during the drying and packing process
- Cooling down of hot linen items before wrapping 
- Further review of the segregation between clean and dirty areas 

Workflow Design (3/4)

Laundries

Work Process

- Clear segregation of soiled and clean containers 

- Labelling of washed trolleys 

Environment Improvement

- Periodic and thorough deep-cleaning and de-dusting

Workflow Design (4/4)

Laundries & Linen Exchange Rooms (LER)

Linen Storage

- Must be in well ventilated environment
- Replacing wooden pallet with plastic pallet

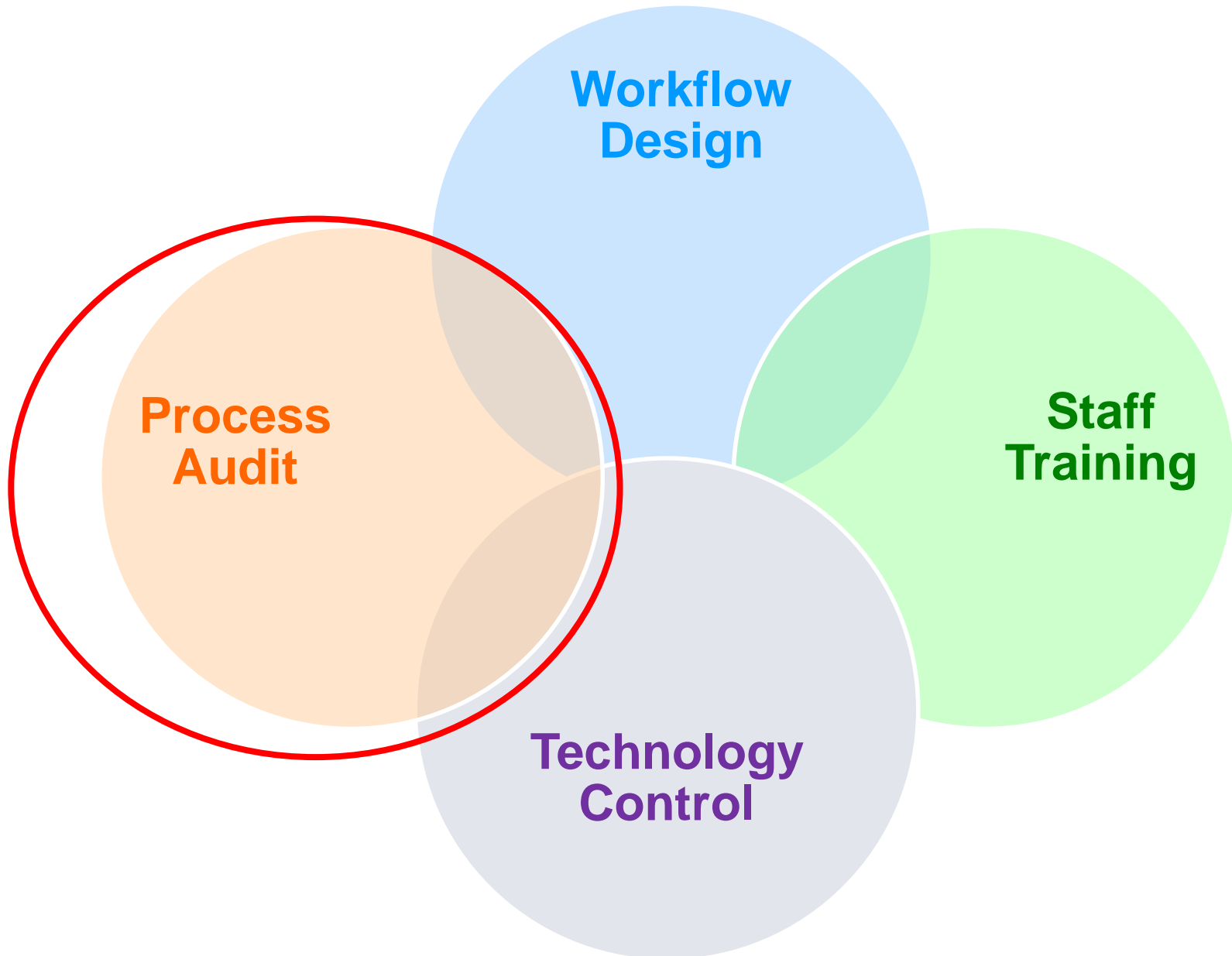


Hospitals

Linen Consumption

- “First-in-first-out” principle

Enhanced Process Control



Process Audit

Laundries & Linen Exchange Rooms (LER)

QA Enhancement

- **Checklists** developed for implementation in laundry plants and linen exchange rooms to **standardize work process monitoring**



Checklist for
laundry plant



Checklist for LER

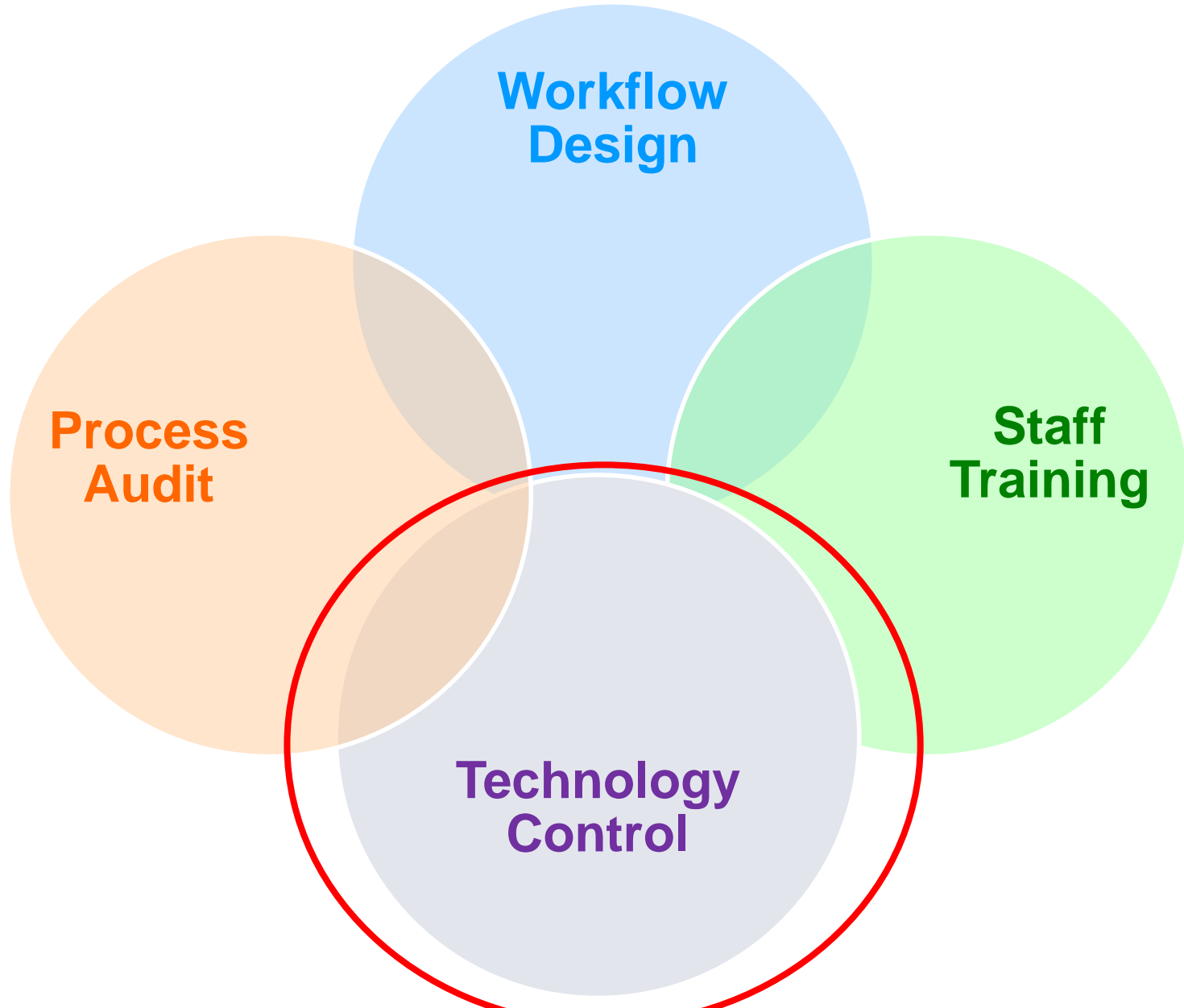
Process Audit

Laundries & Linen Exchange Rooms (LER)

QA Enhancement

- **Cross-cluster checking** by laundry managers / hospital managers to enhance performance management and experience sharing

Enhanced Process Control



Technology Control (1/2)

Laundries

Equipment
Management

- Temperature sensors checking and calibration with documentation annually

Equipment

- Checking the washing temperature of the main wash of the tunnel washer/tumble washer by using temperature data logger



Use of Temp
Data Logger

Technology Control (2/2)

Laundries & Linen Exchange Room (LER)

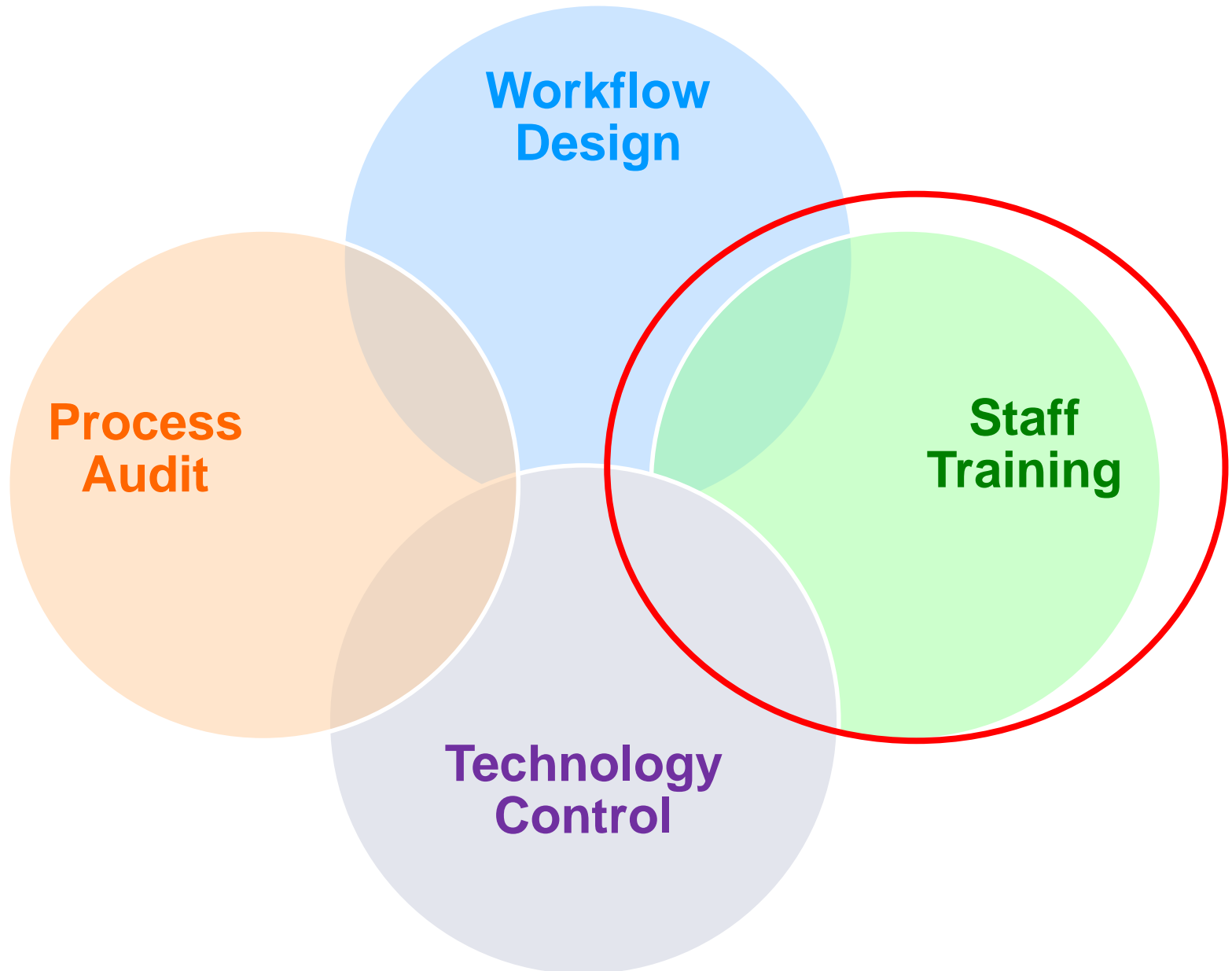
Equipment

- Sample moisture retention checking by
 - (1) using **moisture meter by laundry** before delivery of clean linen to hospitals
 - (2) using **moisture meter by hospital LERs** upon receipt of clean linen from laundry



Use of Moisture
Meter

Enhanced Process Control



Staff Training

Laundries & Hospitals

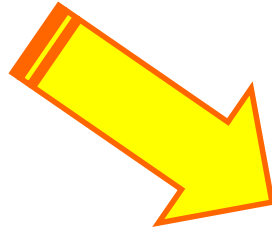
Staff Training

- Identify the training needs of HA laundry staff including managerial, supervisory and frontline staff and arrange training as appropriate
- Further assess and identify training partner in Hong Kong
- Review and arrange on the job and refresher training for staff

Way Forward

- All the above measures have been implemented
- Employed HKPC to further evaluate the effectiveness of the enhanced measures
- Review the mode of service delivery later

Challenges Ahead



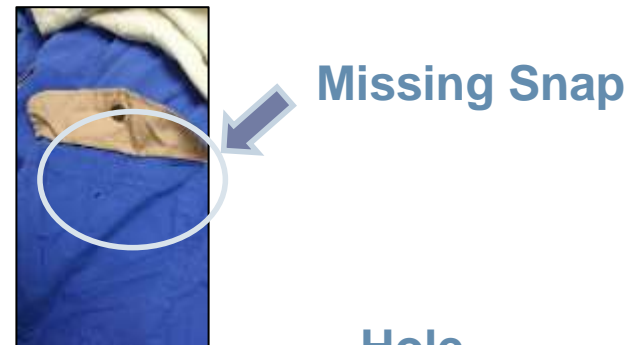
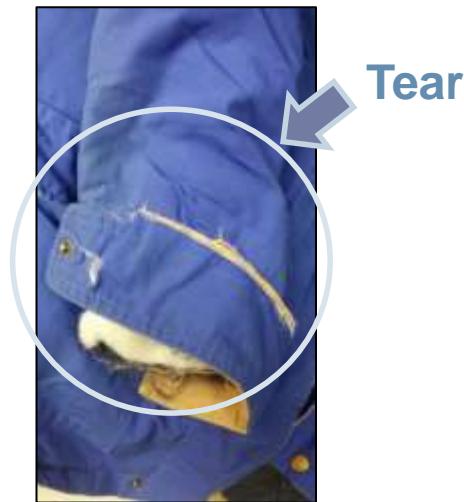
Thank you

Inspection Criteria

- Appearance (e.g. stains, colour fading)



- Physical Defects



Monthly DLI Report

Drycleaning & Laundry Institute international

Confidential Laundry Performance Evaluation

Mr. Charles Cheung
 Kreussler Hongkong Ltd.
 1102 Prosperity Ctr.
 Kwon Tong, Kowloon
 Hongkong,
 China

6/30/2015

Report # 68328

Location : D'Hoodge ISS SWL Form. 01

Classification: cotton

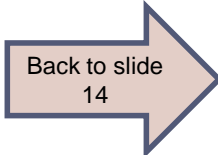
Soil Level: Heavy

Tensile Strength Loss: 1
 Whiteness Degree: 100
 Yellowness: -3.9
 Blood Stain Removal: 92.5
 Soil Removal: 27.4
 Chlorine Bleach Effectiveness: 54.8

CONDITION MEASURED	ACCEPTABLE	UNACCEPTABLE - Recheck
Final Whiteness Degree	80.0 or more	79.9 or less
Final Yellowness	-2.0 or lower	-1.9 or higher
Blood Stain Removal	40.0 or more	39.9 or less
Soil Removal	28.0 or more	27.9 or less
Bleach Effectiveness	52.0 or more	51.9 or less
TENSILE STRENGTH LOSS		
Light Soil Loads	5% or less	6% or more
Moderate Soil Loads	10% or less	10% or more
Heavy Soil Loads	15% or less	16% or more

LPT results should be used to monitor your particular wash formula. Fluctuations in an established pattern of results could warrant your investigation.

Possible causes for unacceptable results are on the reverse side of this report.



Cooling Down of Hot Linen Items before Wrapping



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Clear Segregation of Soiled & Clean Areas



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Clear Segregation of Soiled & Clean Containers



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Labelling of Washed Trolley



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Plastic Pallets



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