

Establishing and Assessing a Coordinated Quality Program Across a Consortium of Cancer Biobanks

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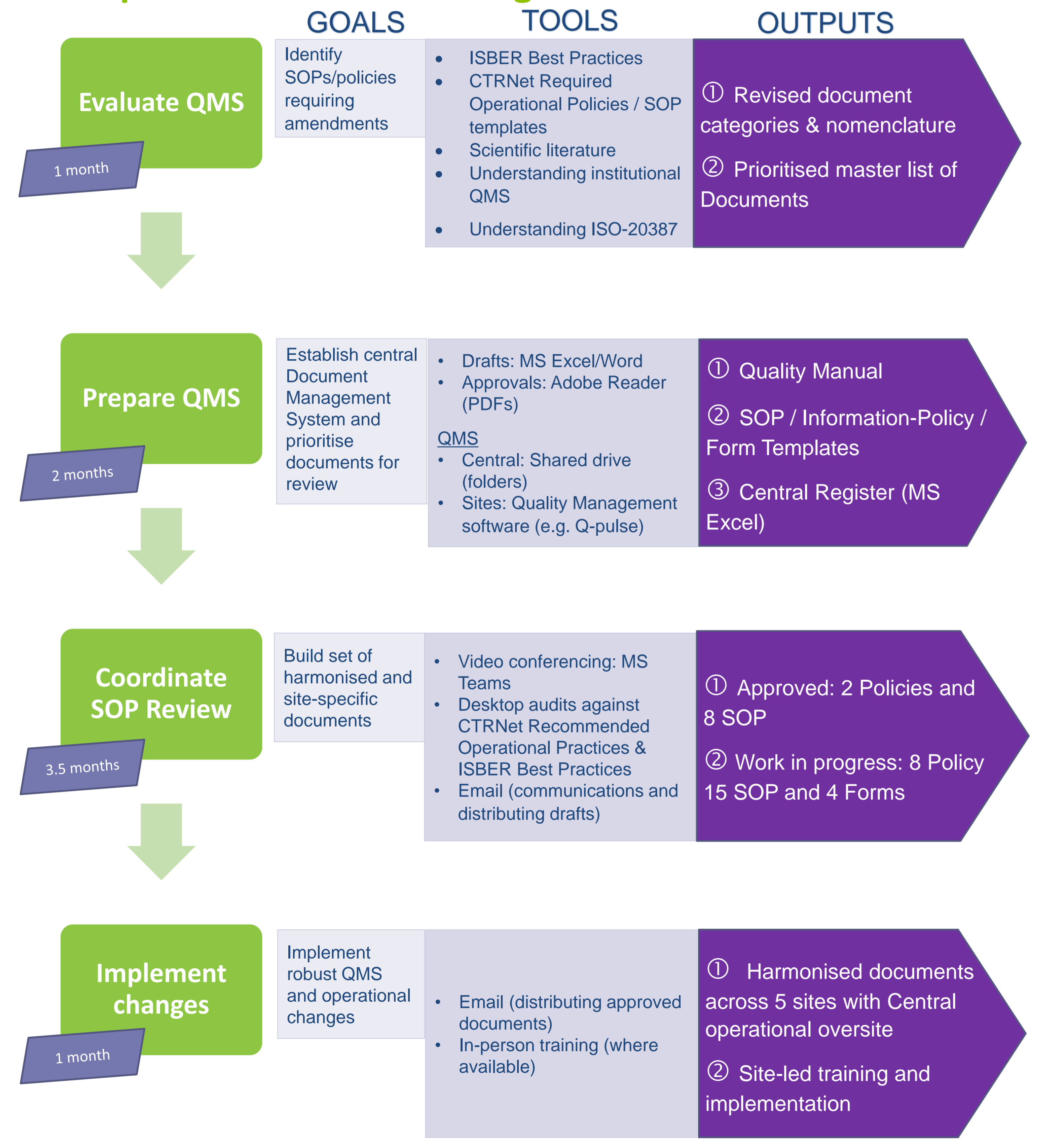
Background

The Victorian Cancer Biobank (VCB), a consortium of five cancer biobanks across the metropolitan Hospital network (Melbourne, Australia), operates a hub-and-spokes model in providing cancer biospecimens, associated data and related services for research. A dedicated Quality Management System (QMS) program was initiated in early 2020, including preparation for Canadian Tissue Repository Network (CTRNet) certification with a view for seeking ISO-accreditation in the future.

Introduction to problem

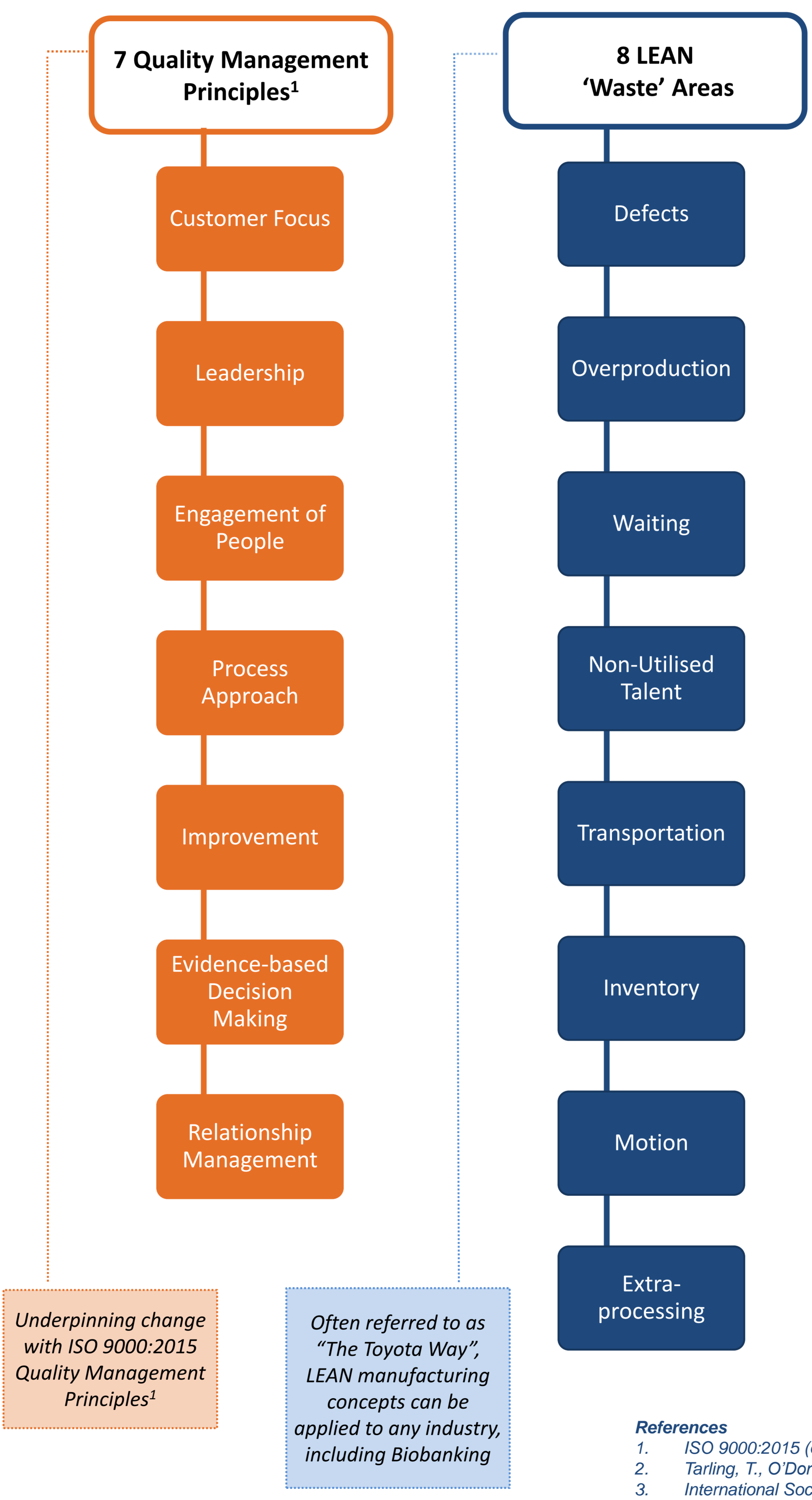
- Historical reliance on phone, email and onsite visits for communication
- Required integration with 5x Consortium member (hospital) QMS
- Distance between key personnel has limited time-effective quality improvement
- COVID-19: implementing QMS improvement using electronic resources and limited onsite personnel

VCB process for coordinating a controlled document review



Review of effectiveness and efficiency of controlled document reviews and QMS program initiatives

Method: Retrospective assessment of the effectiveness and efficiency of recent QMS program initiatives performed against:



Results: A central Quality Manager for program coordination increased impartiality and allowed efficient document reviews by reducing *LEAN* waste areas such as Waiting and Transportation. Introduction of video conferencing software facilitated stronger personnel engagement with the QMS improvement process.

Key QMS initiative	LEAN Waste	Quality Management Principle
Introducing a Quality Manager for coordination of QMS improvement	✓	Reduced <i>Waiting</i> – coordination of tasks Less <i>Overproduction</i> – clear objectives set
	✓	<i>Leadership</i> - ↑ impartiality and accountability
Introducing remote/desktop auditing	✓	Reduced <i>Transportation</i> – ↓157km travel / mth
	✓	<i>Improvement</i> – increased frequency of auditing
Complementing email-based document reviews with virtual meetings (MS Teams)	✓	Reduced <i>Waiting</i> – Resolving issues with discussion
	✓	<i>Evidence-based decision making</i> – Consortium experts able to discuss impact of changes
Transitioning Operations Group meetings to virtual (MS Teams)	✓	Reduced <i>Transportation</i> – ↓157km travel / 2 mths
	✓	<i>Engagement of people</i> – ↑ frequency of consortium site interactions
Including workflow diagrams in SOPs	✓	Reduced <i>Extra-processing</i> – refined contents for SOPs
	✓	<i>Process Approach</i>

Discussion:

- Establishing and maintaining a QMS is increasingly becoming a core part of the success and sustainability of a Biobank².
- ISO Standard 20387:2018 General requirements for biobanking is a new Best Practice Document², however building a QMS to the ISO-level takes resources which are not readily available to many Biobanks. Self-audit against ISBER Best Practices³ and CTRNet certification resources can assist building a Biobank's QMS.

Conclusion:

- Assessment of VCB quality improvement initiatives against quality and efficiency principles has validated our continued exploration of innovative techniques for collaboration and communication beyond the necessary adaptations due to the COVID-19 pandemic.

References

1. ISO 9000:2015 (en): Quality management systems – fundamentals and vocabulary
2. Tarling, T., O'Donoghue, S., et al. (2020). Comparison and analysis of two internationally recognized biobanking standards. *Biopreserv Biobank*;18 (2). DOI: 10.1089/bio.2019.0126
3. International Society for Biological and Environmental Repositories (ISBER): ISBER Best Practices: Recommendations for Repositories (4th edn) (www.isber.org/bestpractices)



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viccancerbiobank.org.au