Review of Past Assurance Projects (2013-2019)

Audit, Risk and Compliance

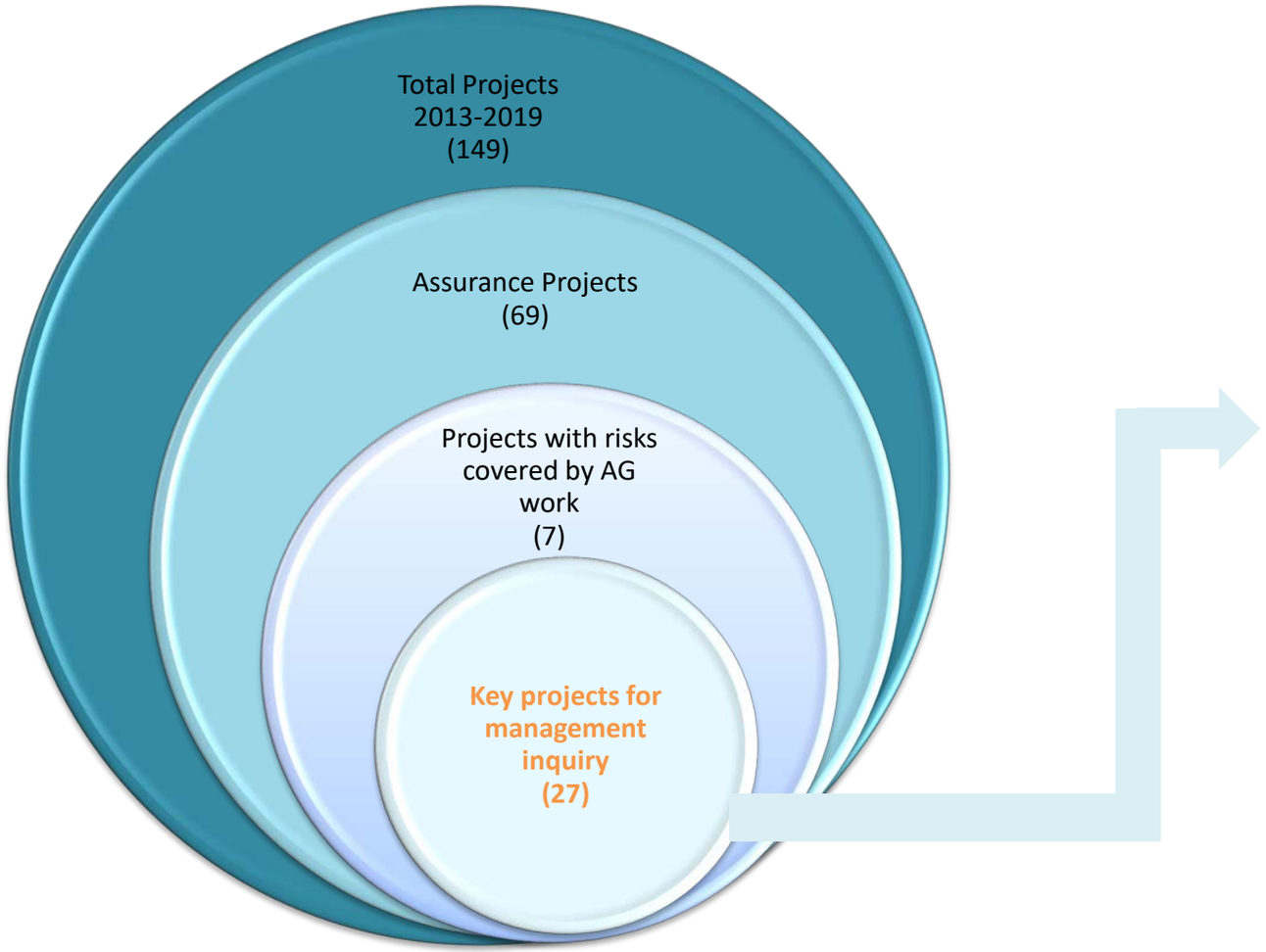
September 24, 2020

Executive Summary

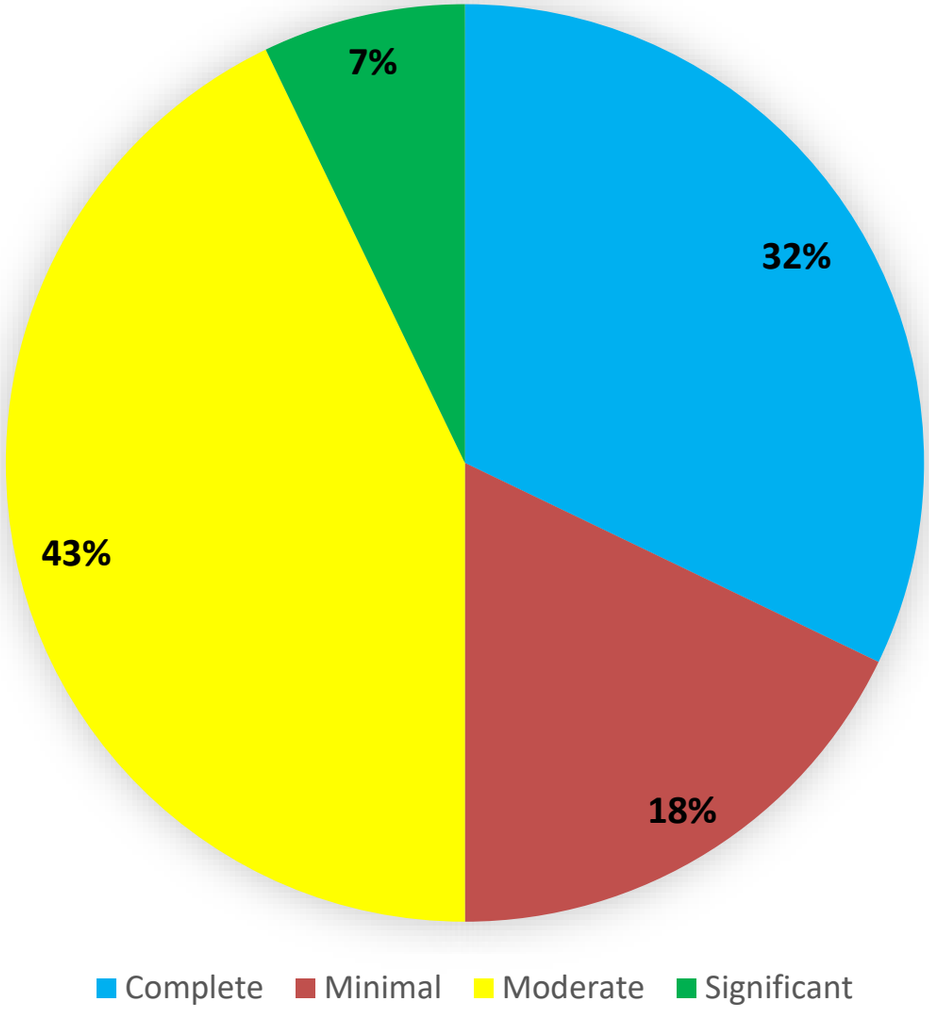
- Reviewed 149 internal reports completed over the past 7 years (2013 to 2019)
- Synthesized and identified 27 key projects for management inquiry
- Identified and summarized organizational and operational risks
- Discussed status of actions taken to address risks with management
- Raised awareness of outstanding risks across business groups
- Identified potential future ARC assurance/advisory work

Overview

Review Process

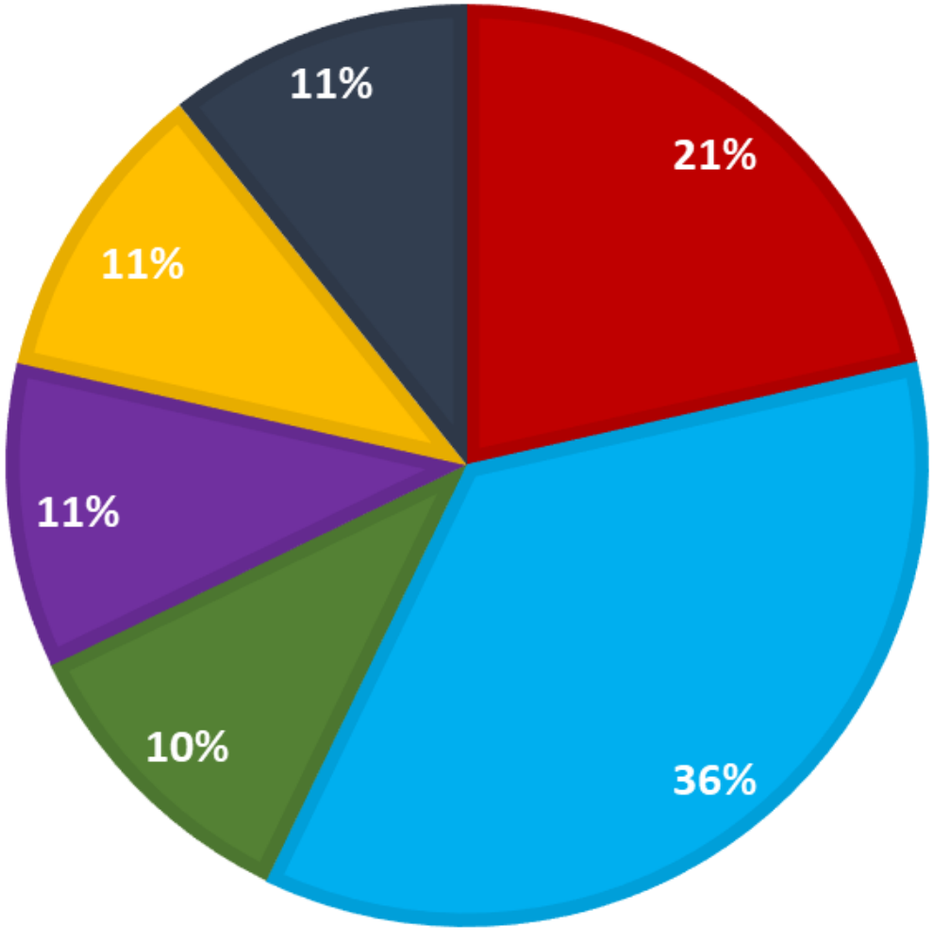


Risk Mitigation Status Per ARC



Past Projects by Organizational Risk

Organizational Risk	Risk Description
Asset Management	Assets are misused or wasted
Commercial Management	Contracts do not protect the TTC's interests
Customer Experience	Low customer satisfaction
Employee Safety	Workplace injury or harm to employees
Information Technology	IT hardware and software failure
Workforce Management	Poor employee performance and productivity



Employee Safety

Risk Identified (by Internal Audit)		Group	Actions Taken (Per Management)	Mitigation Status	Next Steps	
	2018	I&E (F. Monaco)	Commenced nightly track level safety audits in February 2020, conducted jointly by I&E and S&E staff	Moderate	Complete recruitment and training of up to 6 Night Safety Officers to conduct independent track level safety audits	Q4 2020
	2018	I&E (F. Monaco)	Completed departmental self-audits of portable gas monitor usage and implemented corrective actions	Moderate	Conduct new self-audits within each I&E department 6~12 months after rolling out the new model of portable gas monitor	Q3 2021
Work performed by unlicensed tradespeople	2017	People (G. Piemontese)	HR is reviewing the current process. Each maintenance group currently verifies staff qualifications and respond to legislative changes	Minimal	Establish a centralized plan (led by HR - Talent Management) to monitor skilled trades after assessment of current practices across the relevant departments	Q1 2021
Workplace safety and security exposure (night clerks)	2019	Operations (J. Ross)	Improved security measures at one division (exterior main entrances generally unlocked, clerical and management work spaces generally locked)	Minimal	Completion of a full security assessment of all Bus Divisions by the Corporate Security Manager and to provide recommendations to management	Q3 2020

Asset Management

Risk Identified (by Internal Audit)	Group	Actions Taken (Per Management)	Mitigation Status	Next Steps
Failure to optimize the use of maintenance window (2018)	I&E (F. Monaco)	- Initiated discussions with consultants to review track level work planning processes - Limited ongoing development of STARS	Moderate	- Issue RFP to one of the consultants already on I&E's retainer - Focus future releases of STARS on Requestor functionalities (Q4 2020)
Degradation of critical infrastructure – Escalators (2017)	I&E (F. Monaco)	- Updated Escalators Asset Management Plan - Issued new RFP for Escalator Replacement work in Summer 2020	Moderate	- Complete review of vendor submissions - Determine feasibility of outsource model with reduced vendor work scope - Submit Project Change Requests (Q3 2020)
Inappropriate procurement and loss/ misuse/theft of tools (2016)	Corporate Services (J. La Vita)	- Implemented new procedures (e.g., access controls to safeguard tools, distribution of monthly reports to department heads to monitor expenditures, and reviewing opportunities to obtain discounts)	Moderate	- Identify repetitive ordering and questionable expenditures to department Heads monthly for action - Analyze spending patterns by cost centre (Q1 2021)
Loss/misuse/theft of scrap metals (2017)	Corporate Services (J. La Vita)	- Scrap metals received from Operations securely stored by Materials Management - Process exists to verify the weight of metals being sold, but has not been in place since the Hillcrest scale broke mid 2019	Moderate	- Replace and install new weigh scale at the Consolidated Warehouse (Sheppard facility) (Q4 2020)
Degradation of critical assets – T1 HVAC System (2017)	Vehicles (R. Wong)	- Completed T1 HVAC system overhaul - Developed annual and seasonal preventative maintenance programs	Complete	- N/A – "Hot car" incidents fell significantly since 2016; Risk mitigation deemed sufficient

Commercial Management

Risk Identified (by Internal Audit)		Group	Actions Taken (Per Management)	Mitigation Status	Next Steps	
Payments made to vendor for invalid photo ID sales	2014	S&CE (K. Llewelyn-Thomas)	- Engaged new vendor for TTC Photo Identification Program (April 2018) - Requested ARC to complete a review of invoice approval controls	Minimal	- Implement ARC recommendations to improve invoice approval process - Review necessity of this Program as part of the 5-Year Fare Policy work	Q1 2021
Payments made to contractor based on incorrect pricing	2017	Vehicles (R. Wong)	- Itemized vendor invoicing requested - Strengthened controls to monitor contract expiry - Added pre-qualified vendors	Moderate	Re-circulate contract to relevant staff and ensure work order pre-approval and invoice approval process includes verification of price to the contract	Q3 2020
Parts procured do not conform to quality standards	2014	Corporate Services (J. La Vita)	- Performed quality control checks to identify non-conforming parts and liaise with vendors on a case-by-case basis	Significant	Improve internal processes to identify and address recurring vendor management issues	Q1 2021
Restricted contractor oversight	2019	Corporate Services (J. La Vita)	- Revised two clauses in master construction contract	Significant	Finalize amendments to contract clause for valuation of lump sum contract change	Q4 2020
Poor performance of third-party consultants	2017	EC&E (G. Downie)	- Improved controls over requisition and selection of consulting staff	Complete	Ongoing workforce planning and monitoring activities on use of consultants	

Commercial Management

Risk Identified (by Internal Audit)		Group	Actions Taken (Per Management)	Mitigation Status	Ongoing Work
2016	Invoice errors or fraud	I&E (F. Monaco)	- Plant Maintenance has processes to ensure that appropriate individuals review and approve contract/invoices	Complete	- Consider automating 3-way matching in future SAP system upgrades - Develop and provide mandatory and formal fraud awareness training to relevant staff
2018	Vendor is not compliant with contract terms	I&E (F. Monaco)	- Developed SI Terms of Reference, site-visit schedule, inventory of sensors and monitors etc. - Required vendor to provide additional support for invoiced costs	Complete	N/A – Risk mitigation deemed sufficient
2017	Over reliance on external contractors	Corporate Services (J. La Vita)	- Reduced hiring of contract staff - Enhanced workforce planning - Increased monitoring of consulting staff costs and purchase order duration	Complete	Ongoing efforts to reduce reliance on consultant staff under new GTA consultant sourcing model
2013	Payments made for invalid off-site storage	Corporate Services (J. La Vita)	- Improved invoice review and approval process - Visited off-site inventory storage location to better understand inventory movement processes and controls	Complete	Ongoing continuous control and process improvements
2016	Misuse of fuel cards	Vehicles (R. Wong)	- Implemented requirement to use mandatory fueling stations - Implemented process to review emergency purchases of fuel card monthly	Complete	N/A – Risk mitigation deemed sufficient

Customer Experience

Risk Identified (by Internal Audit)	Group	Actions Taken (Per Management)	Mitigation Status	Next Steps
Prolonged subway delays (2016)	Operations (J. Ross)	- Updated Subway delay KPIs in CEO Report - Improved data analysis - Updated protocols for customer-triggered incidents - Created Serious Incident Reports for long delays	Moderate	- Ongoing corporate-wide initiative to automate reporting of CEO Report and daily operational KPIs - Create a centralized function in Operations to provide consistent support in data analytics, KPI reporting, project management etc. across all modes (Q4 2020)
Severe surface collisions (2018)	Operations (J. Ross)	- Formed Traffic Safety Committee - Developed new strategies and processes for the Rules and Compliance Program and the Operator Risk Registry Program - Re-certify all operators over 2020 & 2021 - Ongoing involvement in Vision Zero	Moderate	- Finalize business case for implementing new technological solutions on surface vehicles - Update operator training to incorporate trends and patterns from safety incident data analysis (Q1 2021)
Lost and found articles are not returned to customers (2017)	S&CE (K. Llewellyn -Thomas)	Status quo for the lost articles submission and processing process	Minimal	- Discuss potential changes to the Lost Articles Office as part of Business Transformation - In the meantime, Management accepts “status quo” risk exposure (Q2 2021)

Information Technology

Risk Identified (by Internal Audit)	Group	Actions Taken (Per Management)	Mitigation Status	Next Steps
2017 Lack of integrated video surveillance strategy	Corporate Services (J. La Vita)	- Created Centre of Excellence under the Corporate Camera Strategy Program (CCSP) - Prepared report on TTC's camera strategy which is pending Board approval - Upgraded CCTV systems functionalities, simplified maintenance and performance activities	Minimal	- Submit report on TTC's camera strategy for Board approval in September 2020 - Complete roadmap to support the CCSP and the use of video surveillance in non-public places by Q1 2021 Q1 2021
2016 IT system related business interruptions	Corporate Services (J. La Vita)	- Created IT pandemic and emergency response plans for the TTC and critical applications - Implemented regular tabletop, response and recovery exercises - Ensured duplication of critical IT infrastructure	Moderate	- Continue disaster recovery plan development for key systems - Complete cybersecurity enterprise risk assessment by Q4 2020 and the corresponding implementation plan by Q1 2021 Q1 2021
2015 Data leakage upon disposal of surplus IT hardware	Corporate Services (J. La Vita)	- Revised Hard Drive Destruction Procedures and strengthened chain of custody controls - Ensured hard drive destruction completed by a certified service provider	Complete	N/A – very low residual risk of hard drive data breach prior to destruction

Workforce Management

Risk Identified (by Internal Audit)	Group	Actions Taken (Per Management)	Mitigation Status	Next Steps
Excessive operator absenteeism (2015)	Operations (J. Ross)	- Continued application of the At Work Program and use of AMS - Rolled out updated 'At Work Program' training resources and training - Ongoing accommodation of TWP employees through Occupational Health - Commenced SAP Phase 2 with ITS	Moderate	- Continue with planning of SAP Phase 2 with goal of automating time-worked and time-off data collection and reporting - Resume employee file digitization and centralization through OpenText in People Group. Project on-hold due to COVID-19 priorities (SAP - 2024)
Excessive operator overtime (2014)	Operations (J. Ross)	- Distribution of new overtime monitoring SAP report began in July 2020 - Implemented Clerical Module in all bus divisions with ITS support - Improved workforce utilization through use of 600's vehicles, operator reassignment strategies and reduction in one-piece specials	Moderate	- Issue 2 RFPs related to the acquisition of a cloud based Time & Attendance and Workforce Scheduling solution (part of SAP Phase 2) - Determine options to reduce overtime from sign-up - Resume initiatives to monitor/reduce overtime on-hold due to COVID-19 (Q2 2021)
Employee pay errors (2017)	People (G. Piemontese)	Implemented new procedures to identify and analyze exceptions to pay within the Employee Services & Systems Department	Complete	N/A – Risk mitigation deemed sufficient

Potential Future ARC Projects

Appendix

Employee Safety

- Safety audits performed at track level and strategies to address root cause issues
- Compliance tests to ensure consistent use of portable monitors and follow up of alarm incidents
- Workforce planning practices, including succession planning
- Safeguarding of TTC office staff and properties

Asset Management

- Resource utilization for track level work
- Prioritization of escalator overhaul or replacement
- Validity of tool expenditures
- Safeguarding of assets and inventory (e.g., tools, PPE)
- Asset maintenance strategies (e.g., compliance to maintenance and quality assurance programs)

Commercial Management

- Contract management practices across operational departments
- Advisory services to support development of TTC's commercial management framework
- Review sourcing models across the organization for consulting staff and provide advice on new ITS sourcing model

Customer Experience

- Protocols for resolving customer-triggered incidents in the subway and impact on resuming service
- Mitigation strategies for subway delays related to operator deployment, driving performance or equipment issues
- Effectiveness of mitigation strategies implemented on collision prevention

Information Technology

- ITS Cybersecurity Audit Program
- TTC's cyber-physical attack response plans
- System access management policies and controls
- Preventative maintenance strategies to ensure the continuous operation of the video surveillance systems
- Compliance to applicable regulations for video surveillance data and footage

Workforce Management

- Corrective actions to address anomalies in SAP overtime reports
- Operator workforce optimization
- Management of TWPs vs the requirements of the "At Work Program"
- Service Planning strategies to maximize crewing efficiency