







# Operational Technology (OT) vs. Information Technology (IT)



OT - Programmable systems or devices that interact with the physical environment (or manage devices that interact with the physical environment). These systems/devices detect or cause a direct change through the monitoring and/or controls of devices, processes, and events

Examples include: Safety Instrumented Systems (SIS), process control systems etc.



IT - Any services, equipment, or interconnected system(s) or subsystem(s), of equipment, that are used in the automatic acquisition, storage, analysis, evaluation, manipulation, management movement, control, display, switching, interchange transmission, or reception of data or information









# Recipe for Cybersecurity Program Success

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## Serves

Your Entire Organisation

## Prep Time

Continuous Improvement

## Top 5 Ingredients

1. Asset Management
2. Vulnerability and Patch Management
3. Continuous Monitoring and Threat Intelligence
4. Defence in Depth
5. Incident Response Planning

## Ingredient 1 - External Audits

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Start with a foundation of independent external audits to validate the effectiveness of your security measures and identify areas for improvement.

Self audit is a great pulse check, but a sole reliance is an issue:

1. Lack of Objectivity
2. Conflict of Interest
3. Conflict of Interest
4. Limited Perspective
5. Overlooking Compliance Issues

External audits have their advantages:

1. Objective and Unbiased Evaluation
2. Enhanced Credibility with Stakeholders
3. Assurance of Regulatory Compliance
4. Identification of Risks and Weaknesses
5. Recommendations for Process Improvements

Add a structured risk assessment process to identify, evaluate, and prioritise risks based on potential impact and likelihood.

[illegible]

# Ingredient 2 - Cybersecurity Risk Catalogue User Interface

Cybersecurity Risk Catalogue Item

Name

<Name Auto Inserted Here>

Risk Link

<Select Option>  
 R1 –  
 R2 –  
 R3 –  
 R4 –

Cybersecurity risks can be raised by anyone

Residual Risk Rating

<Rating>

Date Raised

<Auto Date>

Risk Summary

<Insert Summary Here>

Risk Description

<Insert Description & Consequence Here>

Risk Category

<Select Option>  
 Compliance  
 Environmental  
 Financial  
 Health & Safety  
 Reputational

Likelihood

<Select Option>  
 Highly Unlikely - A  
 Unlikely - B  
 Possible - C  
 Probable - D  
 Likely - E  
 Highly Likely - F

Impact

<Select Option>  
 Slight - 1  
 Minor - 2  
 Moderate - 3  
 Serious - 4  
 Major - 5  
 Catastrophic - 6

Cybersecurity Risk Catalogue Item Assessment

Current Mitigations

- <Insert Mitigations Here>  
 - <Insert Mitigations Here>

Mitigation Control Functional Area(s)

Govern ☐  
 Identify ☐  
 Protect ☐  
 Detect ☐  
 Respond ☐  
 Recover ☐

Future Mitigations

- <Insert Mitigations Here>  
 - <Insert Mitigations Here>

Likelihood

<Select Option>  
 Highly Unlikely - A  
 Unlikely - B  
 Possible - C  
 Probable - D  
 Likely - E  
 Highly Likely - F

Impact

<Select Option>  
 Slight - 1  
 Minor - 2  
 Moderate - 3  
 Serious - 4  
 Major - 5  
 Catastrophic - 6

Cybersecurity risks assessed by the Technology & Security Team

Mitigated Risk Rating

<Rating>

Cybersecurity Risk Acceptance

Name

<Name Auto Resolved Here>

Role

<Role Auto resolved From Name>

Accepted

<Select Option>  
 Yes  
 No

If No, reason

<Insert Reason>

Date Accepted / Rejected

<Auto Date>

Cybersecurity risks approved by the business risk owner at the relevant Technology Risk Committee or out of band as



# Ingredient 2 - Cybersecurity Risks Dashboard(s)



### Top 4 Cybersecurity Risks

R1 Todd Energy OT

R2 Todd IT

R3 Nova Energy IT

R4 Nova Energy OT

Todd Energy OT

<KeyRiskHere>

All Post Mitigated Cybersecurity Risks Linked to Todd Energy OT

	A Highly Unlikely	B Unlikely	C Possible	D Probable	E Likely	F Highly Likely
6 Catastrophic	1					
5 Major						
4 Serious		1				
3 Moderate						
2 Minor						
1 Slight				1		

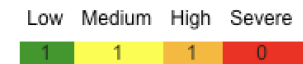
Top Risk Post Mitigation Rating

B4

### Total Number of Pre Mitigated Risks



### Total Number of Post Mitigated Risks



Todd Energy OT Open Post Mitigated Risks

1



Top 5 Post Mitigated Risks		
Number	Risk Summary	Rating
1	toddenergy ot 1	B4
2	toddenergy ot 2	A4
3	asd	B1

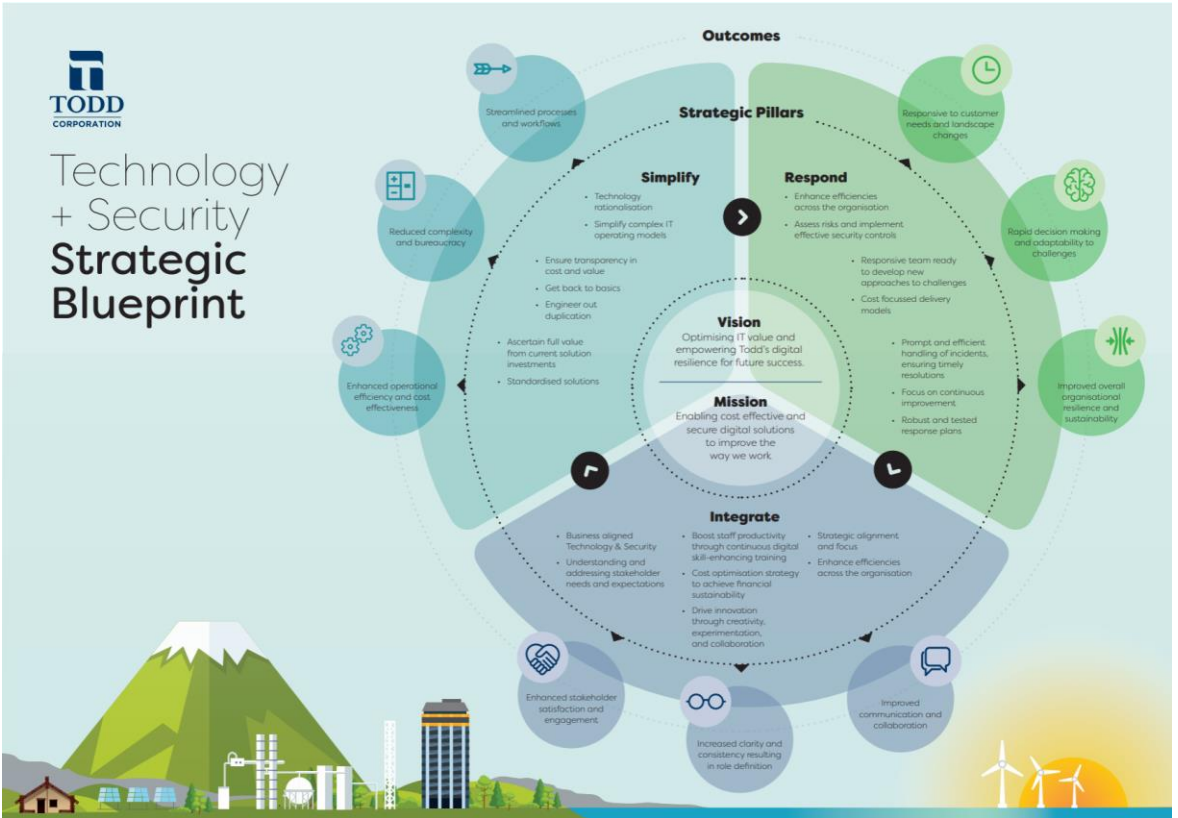
Category	Total Number
Environmental	1
Health & Safety	1
Reputational	1

# Ingredient 3 - Strategic Enhancement Plan

Mix in a well-defined enhancement plan, outlining steps for closing gaps and continuously improving security across the organisation.

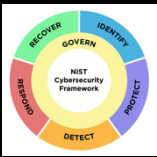


**Vision**  
We will be a secure, connected, and digitally energised business by 2025.



**Vision**  
Optimising IT value and improving Todd's digital resilience for future success.





# Ingredient 3 - Technology & Security Strategy & Roadmap: 2025 to 2027

## Our Vision

Optimising IT value and improving Todd's digital resilience for future success.

## Our Mission

Enabling cost effective digital solutions to improve the way we work.

### BUSINESS SUPPORT

60%

-10% by 2028

<CorporateStrategyGoesHere>

Total IT Spend to Revenue Ratio

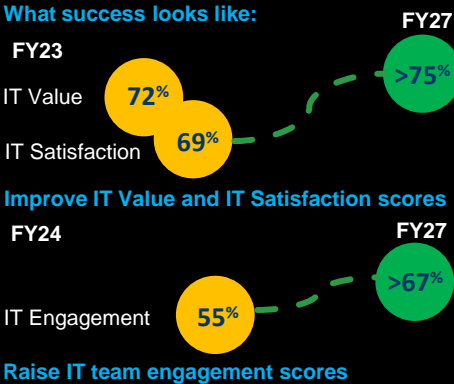
### IT EXCELLENCE

1.5% to 3.5%

#### IT Initiatives in Support of Business Initiatives

- Establish governance
- Simplify and rationalise the IT team
- Strengthen cybersecurity resilience
- Leverage specialist external service providers
- Transition select services to cloud
- Implement HRIS
- Digitise processes to streamline workflows
- Adopt sustainable technology practices

Y1	Y2	Y3
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30% of IT is dedicated to improving operational excellence: IT will be a trusted operator to increase efficiency, lower costs, and reduce IT risk.

30%

Our Technology & Security Strategy

Simplify

Integrate

Respond

Target >75%

Current 69%

Innovator

Business Partner

Trusted Operator

Firefighter

Unstable

IT Initiatives in Support of IT Excellence

- Annual improvement plan
- Manage and improve core IT processes
- Team productivity reporting
- Architecture over engineering

Y1	Y2	Y3
<div></div>		
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What does success look like:

OT Environment

FY27

IT Environment

Level 3 Defined

NIST Cybersecurity Framework

Level 4 Managed

Cybersecurity target maturity scores

Critical & significantly important core IT processes

Effective

Somewhat Effective

Somewhat Ineffective

Not Effective

Effectiveness of important processes in the green

### DATA & AI

10%

Our Data and AI Commitment

We are committed to responsible data management, rapid insight generation, and automation of routine tasks to drive business efficiency. By aligning with key industry drivers, we seek to unlock actionable insights and foster AI-driven innovation that maximises productivity and optimises core business processes.

+10% by 2028

IT Initiatives in Support of Data & AI

- Centralise data capabilities
- Implement modern data platform
- Improve data maturity and data quality
- Develop an AI roadmap
- Deliver AI capabilities

Y1	Y2	Y3
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What does success look like in 2027:

+20%

Improve data quality in business-critical datasets

25% to 30%

Percentage of business processes augmented by AI automation

TLP: AMBER

## Ingredient 4 - Board and Management Buy-In

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‘Although cyber leaders, business leaders and boards of directors are now communicating more directly and more often, they continue to speak different languages.’

(World Economic Forum)



38%

of directors say cybersecurity is the most difficult area for the board to oversee.

(DiligentInstitute)





# Ingredient 4 - Board & ExCom Cybersecurity Dashboard

Top 4 Security Risks

R1	A cyber-attack...
R2	A cyber-attack...
R3	A cyber-attack...
R4	A cyber-attack...

	Severe	High	Medium	Low
#	1	2	1	0

6  
Catastrophic

5  
Major

4  
Serious

3  
Moderate

2  
Minor

1  
Slight

			R1		
			R2		
			R3		
			R4		
A Highly Unlikely	B Unlikely	C Possible	D Probable	E Likely	F Highly Likely

Notable Security Events / Incidents					
Event(s) / Incident(s)	Risk Link	Date(s)	Event / Incident	Action(s)	Comment(s)

Security Event	An occurrence indicating that the security of a system or network may have been breached or compromised
Security Incident	A violation or imminent threat of violation of computer security policies, acceptable use policies, or standard security practices.



Ingredient 4 - Board & ExCom Cybersecurity Dashboard

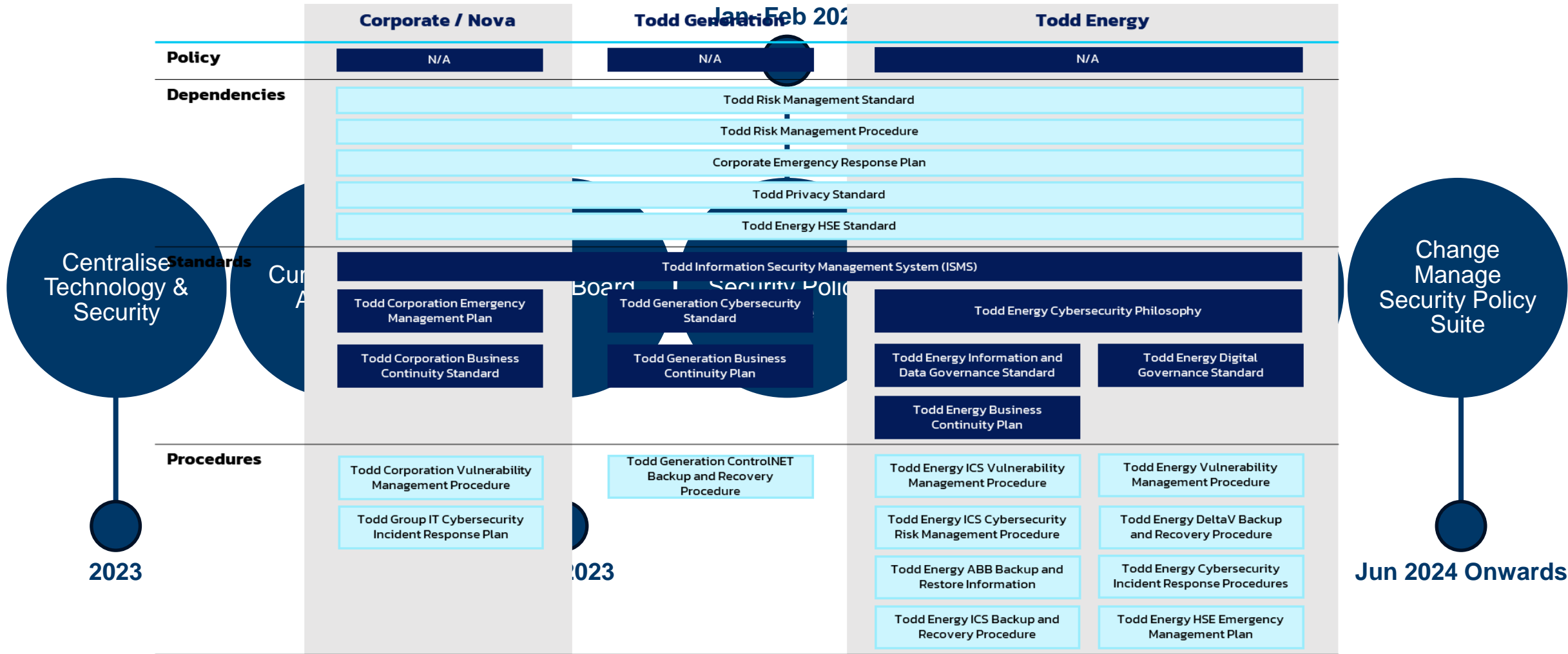
Security Resilience Program				
Project / Initiative	Description	Completion Date	Status	Note(s)
			On Hold	.

New Zealand National Cyber Security Centre Top Business Highlights – August 2024 & September 2024		
<b>Phishing campaign impersonates Fortune 100 companies</b> <a href="https://labs.guard.io/echospoofing-a-massive-phishing-campaign-exploiting-proofpoints-email-protection-to-dispatch-3dd6b5417db6">https://labs.guard.io/echospoofing-a-massive-phishing-campaign-exploiting-proofpoints-email-protection-to-dispatch-3dd6b5417db6</a>	<b>Iranian-linked cyber actors targeting of US presidential candidates</b> <a href="https://blog.google/threat-analysis-group/iranian-backed-group-steps-up-phishing-campaigns-against-israel-us">https://blog.google/threat-analysis-group/iranian-backed-group-steps-up-phishing-campaigns-against-israel-us</a>	<b>Australia partners with Google for critical infrastructure security</b> <a href="https://www.csiro.au/en/news/All/News/2024/August/CSIRO-and-Google-Partner-to-Help-Secure-Critical-Infrastructure-from-Risky-Software-Components">https://www.csiro.au/en/news/All/News/2024/August/CSIRO-and-Google-Partner-to-Help-Secure-Critical-Infrastructure-from-Risky-Software-Components</a>
<b>227 gigabytes of sensitive US information published</b> <a href="https://www.bleepingcomputer.com/news/security/national-public-data-confirms-breach-exposing-social-security-numbers">https://www.bleepingcomputer.com/news/security/national-public-data-confirms-breach-exposing-social-security-numbers</a>	<b>47 currency exchanges taken down in Operation Final Exchange</b> <a href="https://www.bleepingcomputer.com/news/security/germany-seizes-47-crypto-exchanges-used-by-ransomware-gangs/">https://www.bleepingcomputer.com/news/security/germany-seizes-47-crypto-exchanges-used-by-ransomware-gangs/</a>	<b>A gift, a scandal, and a QR code</b> <a href="https://www.stuff.co.nz/nz-news/350416267/new-qr-code-scam-may-be-its-way-police">https://www.stuff.co.nz/nz-news/350416267/new-qr-code-scam-may-be-its-way-police</a>

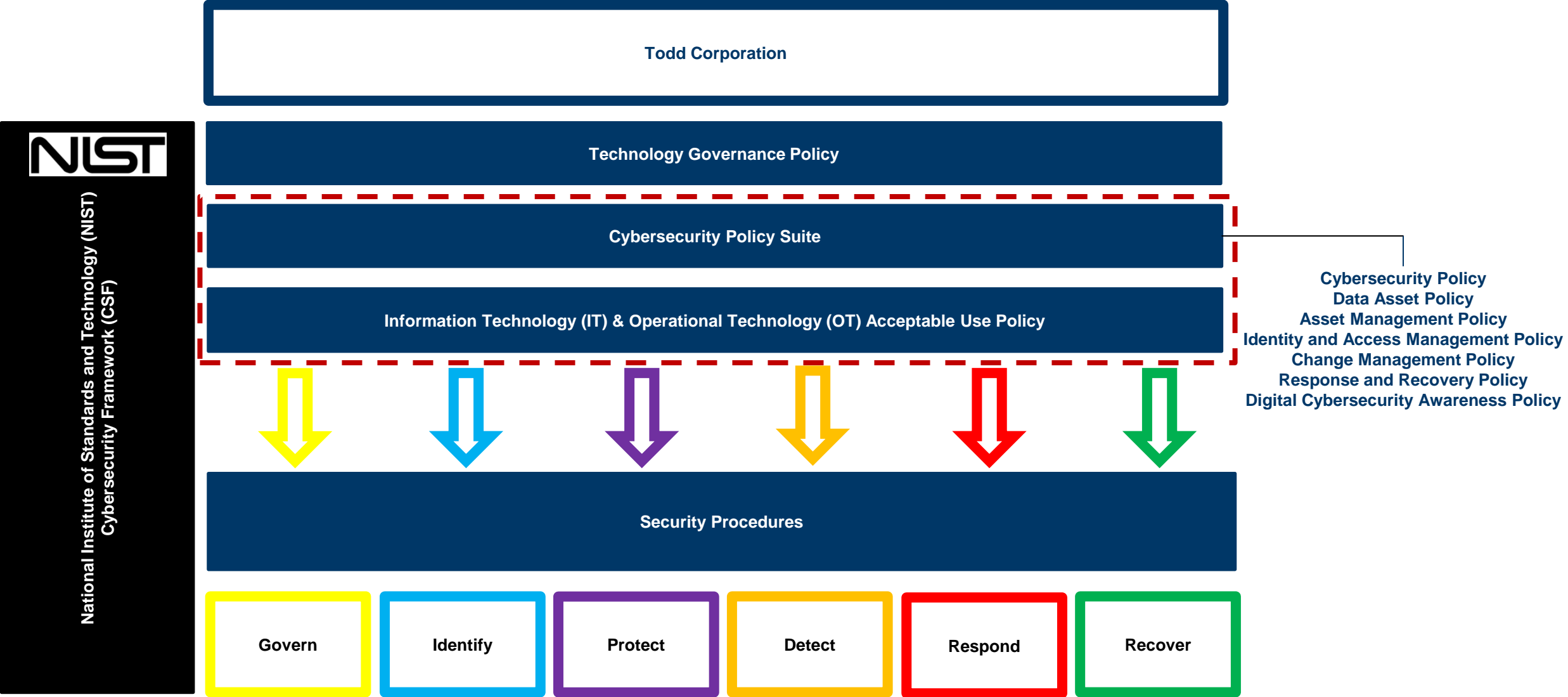


# Ingredient 5 - Policies

Sprinkle in clearly defined security policies that align with best practices and ensure all employees and stakeholders know the rules of the game.




# Ingredient 5 - High Level Cybersecurity Policy Framework



# Ingredient 5 - IT & OT Acceptable Use Policies

## IT\* Acceptable Use Policy

This Policy applies to all employees and service providers and sets out the minimum requirements and expectations when using Company IT.




Acceptable Use	Prohibited Use
<p><b>Take care of your Company issued devices and promptly report any incidents of damage or loss.</b></p> <ul style="list-style-type: none"><li>You are personally responsible for looking after Company devices allocated to you and for ensuring the security of these devices.</li><li>If you have a Company issued phone or laptop, take it home with you to ensure business continuity.</li><li>Only you can use your Company issued devices. No one else can use it at any time.</li><li>If your Company issued device is not fit for purpose, return it to the Technology &amp; Security Team.</li><li>You must report the loss, theft, or damage of Company IT assets to your manager / supervisor or the Technology &amp; Security Team as soon after the event as possible.</li><li>At the end of your employment / contract, you are required to return all Company issued devices.</li></ul> <p><b>Use a unique password and a second factor of authentication if available.</b></p> <ul style="list-style-type: none"><li>Every employee is provided with an individual account and you must never use another employee's account.</li><li>Use a secure password and an additional factor of authentication for your account when available.</li><li>Don't share passwords or additional factors of authentication with other employees.</li><li>Don't use the same passwords for work and personal accounts.</li></ul> <p><b>Personal devices may be used for Company purposes provided they meet certain requirements:</b></p> <ul style="list-style-type: none"><li>They only connect to Guest networks in Company offices.</li><li>M365 applications can be installed but Company Confidential or Company Personal Information (CPI) must not be stored on personal devices / storage services.</li></ul> <p><b>Ask your manager / supervisor or the Technology &amp; Security Team about which applications to use.</b></p> <ul style="list-style-type: none"><li>You must use only approved applications and cloud services for work related tasks. If there's any uncertainty consult your manager / supervisor or the Technology &amp; Security Team.</li><li>If you can't find what you need, make a request to the Technology &amp; Security Service Desk.</li></ul> <p><b>Please report any security breaches or concerns.</b></p> <ul style="list-style-type: none"><li>Immediately report any unauthorised access, suspicious activity, or cybersecurity incidents to ensure the safety and confidentiality of our Company IT and OT.</li></ul> <p><b>Stay up to date with all required security training.</b></p> <ul style="list-style-type: none"><li>You are required to complete annual acceptable use training.</li><li>You may be asked to complete additional cyber training modules to mitigate risks associated with the dynamic nature of cyber-attacks.</li></ul> <p><b>Company issued devices are managed and monitored, and must be used responsibly.</b></p> <ul style="list-style-type: none"><li>Company devices and IT systems are managed and monitored by the Company.</li><li>The use of Company devices and IT systems must adhere to all applicable laws, align with Company policies, and safeguard the Company from any risks.</li><li>The Company reserves the right to monitor and delete personal data and information on its devices and IT systems as per its policy and legal regulations.</li><li>Company devices may be utilised for personal purposes, as long as such use does not impede work duties, diminish job performance, or conflict with professional responsibilities.</li><li>Do not sign up for personal services or subscriptions using your Company provided email address.</li><li>A Company mobile phone and mobile phone plan are primarily for business purposes. Reasonable personal use is allowed provided it does not incur additional cost.</li><li>International calling, global roaming, and paid text services must only be for business purposes.</li><li>All purchases of additional data packs and roaming services for business travel must have prior approval from your line manager / supervisor.</li><li>The Company may charge you for any additional costs incurred due to personal use.</li><li>You may keep the mobile number from your Company phone, if approved, to use it as your personal number after you leave the Company.</li></ul>	<p><b>Don't let anyone else use your Company issued devices.</b></p> <ul style="list-style-type: none"><li>Company devices are assigned for employee or service provider use only.</li><li>Do not allow family members, friends, or other colleagues to use these Company devices.</li><li>Misuse by others can lead to disciplinary action against the Company device's assigned owner.</li></ul> <p><b>Don't share your account and/or password with anyone, including other employees.</b></p> <ul style="list-style-type: none"><li>Avoid writing down passwords where others can find them.</li><li>Refrain from using the 'Remember Password' feature on shared devices.</li><li>Never disclose your password in response to an email, phone, or chat request.</li></ul> <p><b>Don't use unapproved cloud applications and storage, or attempt to install unapproved applications.</b></p> <ul style="list-style-type: none"><li>Don't sign up to, or store Company data on, unapproved cloud services.</li><li>Don't attempt to download or install unapproved applications on Company workstations connected to Company networks.</li><li>If you can't find what you need, make a request to the Technology &amp; Security Service Desk.</li><li>Respect any restrictions on application or cloud service use imposed by the Company for security and compliance reasons.</li></ul> <p><b>Don't plug in unapproved USB devices.</b></p> <ul style="list-style-type: none"><li>Only use Company approved USB devices to store or move data.</li></ul> <p><b>Don't try and circumvent our security controls.</b></p> <ul style="list-style-type: none"><li>Don't try to circumvent our security controls, they are there to protect the Company.</li><li>Adhere to the Company's Technology &amp; Security policies and be vigilant when it comes to IT and OT security, risks, scams and emails from unverified or unknown senders.</li></ul> <p><b>Exceptions</b></p> <ul style="list-style-type: none"><li>The Technology &amp; Security Team may allow or deny a particular prohibited use to any employees based on appropriate risk analysis, risk management and business justification, and they may revoke this right at any time.</li><li>Requests to use Company IT or non-Company IT in exemption from this Policy must be submitted to the Technology &amp; Security Service Desk.</li></ul> <p><b>Compliance</b></p> <ul style="list-style-type: none"><li>Any use of Company IT which breaches this Policy may be classified as misconduct or serious misconduct under the Code of Conduct, and may be subject to disciplinary action, up to and including dismissal.</li></ul>

\*Information Technology (IT): Any services, equipment, or interconnected system(s) or subsystem(s) of equipment, that are used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. Examples include Company issued devices and Company licensed applications such as Microsoft 365, TechnologyOne, Salesforce etc.

## OT\* Acceptable Use Policy

This Policy applies to all employees and service providers and sets out the minimum requirements and expectations when using Company OT.



Acceptable Use	Prohibited Use
<p><b>Only use Company devices provided specifically for the OT environments.</b></p> <ul style="list-style-type: none"><li>Do not use Company provided IT devices on OT networks.</li><li>Employees and service providers must not bring any IT equipment onsite and connect it to the OT environment.</li></ul> <p><b>Give your Company OT device back before you leave site.</b></p> <ul style="list-style-type: none"><li>When leaving site(s) you must hand back all Company OT devices.</li><li>Company OT devices are not to be used in any other environments or connected to the Internet.</li></ul> <p><b>Shared OT passwords for commissioned technology must be stored in the site password vault.</b></p> <ul style="list-style-type: none"><li>Passwords must meet the complexity requirements defined by the Company and be unique for each system.</li><li>Inform the Technology &amp; Security Team if any new account is created, identified, or hardcoded into any OT system or service.</li></ul> <p><b>Stay up to date with all required OT security training.</b></p> <ul style="list-style-type: none"><li>All employees and service providers accessing Company OT are required to complete the Company specific site induction and the OT acceptable use training module.</li><li>You may be asked to complete additional OT cyber training modules to mitigate risks associated with the dynamic nature of cyber-attacks.</li></ul> <p><b>Support additional vetting and proof of competencies.</b></p> <ul style="list-style-type: none"><li>With changing legislative requirements, and increased risk, the Company may at any time vet or require proof of competency for any employees or service providers working in Company OT environments.</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>While the IT Acceptable Use Policy remains applicable to OT environments, the OT Acceptable Use Policy will take precedence to accommodate OT's unique operational and security requirements.</li></ul>	<p><b>No personal use is allowed on Company OT.</b></p> <ul style="list-style-type: none"><li>Do not connect personal devices, such as laptops or tablets, to the Company OT networks.</li><li>Ensure that all activities conducted on the Company OT systems are strictly related to operational activities and tasks.</li></ul> <p><b>No default manufacturer or third party credentials may be used on Company OT.</b></p> <ul style="list-style-type: none"><li>No manufacturer or third party default credentials may be used for Company OT.</li><li>Don't use the same passwords for IT, OT and/or personal accounts.</li></ul> <p><b>Don't make any changes to Company OT without following Management of Change (MoC) procedures.</b></p> <ul style="list-style-type: none"><li>All changes on Company OT (including patching, account or configuration changes) must be logged, assessed and approved before being executed.</li><li>Industrial Internet of Things (IIoT) and Internet of Things (IoT) devices cannot be directly connected to OT networks.</li><li>Ensure that IIoT and IoT devices are on a separate network segment from the OT network to prevent direct connectivity.</li><li>Use strict access control measures to regulate which devices can communicate with the OT network.</li></ul> <p><b>Exceptions</b></p> <ul style="list-style-type: none"><li>The Company may allow or deny a particular prohibited use to any employee or service provider based on appropriate risk analysis, risk management and business justification, and they may revoke this right at any time.</li><li>Requests to use Company OT devices in exemption from this Policy must be submitted to the site engineers or the Technology &amp; Security Service Desk.</li></ul> <p><b>Compliance</b></p> <ul style="list-style-type: none"><li>Any use of Company OT which breaches this Policy may be classified as misconduct or serious misconduct under the Code of Conduct, and may be subject to disciplinary action, up to and including dismissal.</li></ul>

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## Last Bit of Spice

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1. Don't compromise on your team or cybersecurity partners.
2. If things aren't working, fail them, and fail them fast.
3. Spend more time on leveraging the 80% similarity than the 20% differentiation.



Questions