# Business Case and Role Execution Plan for IT Director, Solar MAP

This plan outlines the operational and strategic framework for establishing and enhancing the Solar IT Director function. The plan highlights the areas that the Initial focus will be on:

- **New Plant startup**
- **Acquisitions**
- **Organizational Alignments**
- **System Integrations**
- **Process Standardization and Optimization**

The Following recommendations will help define the IT landscape and create an IT roadmap that aligns with Corning's global Digital & IT solutions. This will build on the Corning global common bill of IT standards currently in place and leveraged by the company to successfully execute the functions, processes, or technical solutions required.

## 1. New Plant Startup

**Operational/Tactical Solutions**

**Immediate Actions:**

- **IT Infrastructure Setup:** Define on-prem Data Center and network infrastructure design (wired, wireless, and cellular), and cloud strategy (private, hybrid, public). Set up a cloud-based infrastructure (e.g., AWS, Azure) for scalability and flexibility. Leverage Infrastructure-as-a-Service (IaaS) / Infrastructure as Code (IaC) for quick, dynamic provisioning and scaling of necessary IT resources for the new plant. Ensure network security protocols are established early and implement Policy as Code (PaC).

- **ERP and Supply Chain Systems Setup:** Deploy the Corning global common standard implementation of SAP S/4HANA and  Oracle Cloud for streamlined ERP management of manufacturing operations and supply chain activities. Implement an initial basic configuration to handle core operations (e.g., inventory management, procurement, production planning).  Ensure the environment is stable and continue deploying the full suite of capabilities.

- **Enhance System Stability and Reliability:** Implement pre-shift health checks for all production systems. Drive root cause analysis and implement preventative measures to ensure continuous system health.

- **Minimize Production Downtime:** Ensure rapid detection, escalation, and resolution of production issues to minimize impact on business and customers.

- **Incident and Problem Management:** Serve as an escalation point and single point of contact for all production issues across key platforms.

  - Manage incident lifecycle: detection → triage → escalation → resolution → blameless postmortem → root cause analysis.

  - Implement **automated monitoring** and alerting systems for early issue detection. Monitoring and alerting events should be analyzed, aggregated, and visible through a **'single pane of glass'**

  - Ensure that 'Living' Runbooks exist for every technology, application, and solution.

- **Operational Reporting & Performance Analysis:** Use dashboards and analytics to track:

  - Incident trends

  - Root causes

  - SLA adherence

  - Team performance

  - System Uptime

  - Hour Mean Time to Acknowledge (MTTA)

  - Mean Time to Resolve (MTTR)

  - Repeat Incidents (same root cause)

  - Customer Satisfaction Score

- **Collaboration Tools:** Establish the plant's communication and collaboration platform, integrating it with project management tools like Jira for task tracking. Continuously evaluate and refine support processes and tools for scalability and efficiency.

- **Establish quality control standards** for project and change management, incident handling and documentation.
  - Best practices: DevOps, SRE, ITIL, Jira Service Management, gold source repository (Confluence), CMDB, Code vault, gold disk source code management, access controls with irrefutability, etc.

## New Plant Startup: Key IT Focus Areas

| IT Enabled Processes and Systems | | |
|---|---|---|
| Standard Inspection Process | Error Proofing Systems | Test Systems |
| In-Plant Order Management (MES) | Production Monitoring & Control | Product Routing & Tracking |
| Material Replenishment | Lineside material delivery | IT Supply Chain solutions |
| Andon | Traceability | Energy Management |
| Upload, Download & Compare (PLC and plant floor device - code and logic backup) | PLC / HMI / OT standards and solutions | IT / OT cyber and security solutions |
| Incident and Change Management (ITIL, DevOps, SRE) | Dimensional Information/validation | Predictive and preventative maintenance |

> **Implementation strategies for the Key IT Focus Areas listed above are available as needed.**

**Strategic Alignment/Forward-Looking Recommendations**

- **Smart Factory Integration:** Explore integration of IoT and AI-driven predictive maintenance to optimize plant operations. Implement AI-driven analytics for process improvements and real-time monitoring of plant performance.

- **Automated Workflow Optimization:** Integrate Robotic Process Automation (RPA) for automating repetitive tasks in plant operations (e.g., inventory tracking, procurement workflows) to improve efficiency and reduce manual errors.

# 2. Acquisitions

When Corning, Solar Technology seeks to fully integrate the IT systems, infrastructure, and digital operations of acquired entities. The goal is to unify the technology landscape, eliminate redundancies, retain strategic assets, and ensure business continuity — all while complying with industry regulations and aligning with long-term strategic growth.

## IT Strategic Integration Objectives

- Achieve a unified digital and operational infrastructure across global sites using enterprise architecture frameworks and phased rollout.

- Consolidate cloud-based services for cost and complexity reduction.

- Preserve high-value IP and systems, validated by legal audits and sandboxed for protection.

- Ensure secure, compliant operations with pre-merger audits.

- Minimize operational disruption via coexistence models, redundancy planning, and cross-functional training.

- Consider a Business Value Realization Model to quantify cost savings, IT efficiency, and innovation gains.

- Scenario Planning options including phased integration, carve-outs, and digital twin coexistence.

- Unified Communication Setup: Consolidate communication tools across both organizations.

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| The full proposed framework for "IT Acquisition - Systems and Infrastructure Integration" can be accessed [here](#), in the embedded file below, or from the window pane to the left. |
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| **PDF** <br> IT Acquisition <br> Integrated Systems a |

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It includes:

- Discovery and Assessment Phase

- Integration Architecture Strategy

    o Infrastructure Integration

    o Application Integration

    o Data Integration

- Security, Compliance, and Risk Management

- Key Risks and Mitigations

- Tools and Templates to Use

# 3. Organizational Alignment

**Operational/Tactical Solutions**

**Immediate Actions:**

- **Foster Cross-Functional Collaboration:** Create seamless interaction (eliminate silos) between development, security, QA, infrastructure, Operations (SRE), and business teams to resolve incidents and deploy improvements. Use an enterprise PMO or transformation office to manage large-scale coordination.

- **Deliver High Stakeholder Satisfaction:** Ensure transparency and accountability through timely communication and performance reporting. Acting as a single point of contact and accountability for escalations.

- **Team Leadership & Development:** Build and manage high-performing teams.

    o Align resource planning with business growth, onboarding new technologies, and scaling teams as needed.

    o Provide mentorship and training: Provide cross-training and rotational opportunities to expand core competencies.

    o Open door policy with all team members and develop an individual development plan (IDP) with all direct reports.

- **Stakeholder Management:** Proactive stakeholder engagement: Act as a liaison between IT teams and external/internal stakeholders. Establish a set meeting

schedule with leadership teams to ensure alignment of IT projects with business goals.

- o Collaborate with the customer to define application criticality definitions: Vital, Critical, Important, Deferable, and agree upon performance metrics for each classification.

- o Define incident escalation criteria to eliminate ambiguity about who should be notified and when.

- o Matrix Management: Set up a matrix management structure for managing cross-functional teams.

- o Manage customer, executive, and C-suite relationships through active engagement and feedback loops.

- o Collaboration Tools: Ensure that teams across IT, manufacturing, and business divisions are collaborating seamlessly.

- o Develop communication cadences including town halls, newsletters, and live dashboards.

# 5. System Integrations

**Operational/Tactical Solutions:**

**Immediate Actions:**

- **System Mapping and Integration Plan:** Perform a systems audit to review the current IT infrastructure and determine the areas requiring integration. Utilize system integration methodologies, such as API-based integrations, to connect key business functions. Additionally, identify system integrations that exist as dependencies and could impact a system convergence plan or an application retirement plan.

**Solutions & Processes:**

- **API Integrations:** Use MuleSoft or Dell Boomi for seamless integration of applications across the business.

- **ERP Integration:** SAP S/4HANA or Oracle Cloud ERP to centralize business operations across divisions, ensuring smooth integration of existing systems.

- **Advanced System Automation:** Use AI-based automation platforms to reduce manual integration processes and enhance data accuracy and flow across systems.

- **Integrated Data Analytics Platform:** Implement an integrated Business Intelligence (BI) Platform (e.g., Power BI or Tableau) to provide real-time data insights across Solar MAP operations.

# 6. Process Standardization and Optimization

**Operational/Tactical Solutions:**

**Immediate Actions:**

- **Drive Process and Tool Optimization:** Continuously evaluate and refine support processes and tools for scalability and efficiency.

- **Process Improvement & Automation:** Evaluate and revamp existing support processes using **ITIL, DevOps, Agile**, **and SRE** methodologies.
    - Identify Single points of failure out to the access layer. Assess impact and remediate as appropriate.
    - Assess potential Failure Mode and Effects Analysis (FMEA) exposure items in each business process area and generate an RPN (risk priority number) for each. Track and remediate as needed: RPN = Severity (S) x Occurrence (O) x Detection (D)
    - Ensure that taxonomy map(s) exist to define and visualize application usage and ownership by process area.
    - Leverage tools for continuous integration and automated deployment. (CI/CD)
    - Lead efforts to automate repetitive, manual support tasks (**reduce toil**), improving efficiency and shrinking Mean Time to Resolution (MTTR).
    - Ensure that all vital production environments have the following characteristics and procedures: high availability (HA) with auto failover, provisioning and scaling on demand, backup and restore (BUR), disaster recovery, business resumption, and manual operating procedures (MOPs) when possible.

- **Define and track the process area-specific impact of IT incidents:**

  o Lost production units in manufacturing.

  o The amount of overtime required to meet production targets as a result of downtime.

  o Implement KPIs: develop metrics with stretch goals (e.g., **SLO, error budgets, SLA**, incident resolution time, first-call resolution rate, service uptime).

  o Present monthly and quarterly production health reports to senior management.

- **Standardized Process Framework:** Standardize processes across all departments to eliminate waste and reduce process variation. Begin with the most critical processes like inventory management, production scheduling, and supply chain operations.

- **Process Documentation:** Use a common, openly accessible document repository (Confluence) to store standardized processes and ensure that all team members have access to consistent guidelines and best practices.

- **Lean Six Sigma:** Implement Lean Six Sigma methodologies to reduce waste and improve process efficiency across business functions.

- **Kaizen for Continuous Improvement:** Implement a Kaizen mindset involving all people across operations, fostering a culture of continuous improvement.

## Conclusion

This document represents a comprehensive strategy for optimizing a new plant startup, integrating acquisitions, ensuring organizational alignment, and enhancing process standardization. By leveraging modern technologies, tools, and methodologies such as cloud infrastructure, ERP solutions, automation, AI, and IoT, Solar MAP will be well-positioned for scalability, efficiency, and innovation in the long term.