



ARE YOU READY?

INCYTE, SWITZERLAND

# PERFORMANCE DASHBOARDS DEVELOPMENT

CASE STUDY: OPERATIONAL EFFICIENCY  
AND RELIABILITY



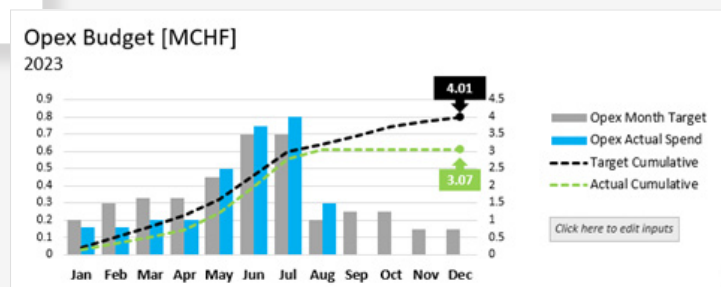
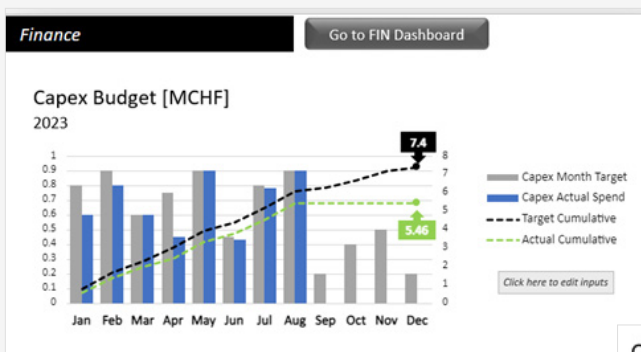
# Performance Dashboards Development

## PROJECT OVERVIEW

A biotech manufacturing company, preparing for the launch of its first batches of a new drug, identified the need to implement performance measurement even before commercial manufacturing was begun. The global CAI project team had the expertise to help the drug manufacturing client, not only understand what KPIs should be monitored, but also provide a method for converting identified KPIs into a two-level dashboard to display, analyze, review, and monitor the results, against site objectives. The project team worked with each department to identify current KPIs, assess any gaps, and recommend additional KPIs. Based on these KPI, dashboards were developed to present at both the site and departmental levels.

## CHALLENGES

Site Leadership wanted KPIs to be aligned with site objectives both and the site and departmental levels. Some departmental KPIs were already in place, but not aligned with the site objectives. Additionally, the client was moving away from multiple data systems into an SAP management system and wanted to have KPIs and data sourcing requirements identified prior to SAP implementation.



## ALIGNING THE KPIS WITH THE SITE OBJECTIVES

Following an introductory performance measurement and KPIs training, a workshop was held with the client Leadership Team to identify the critical objectives for the manufacturing site. CAI provided recommendations on what might be included, and four main objectives were the result of the workshop:

### Site Objectives:

- On time, in full delivery of manufacturing batches.
- Adherence to Operational and Capital Expense (OpEx, CapEx budgets).
- Compliance with training, quality events, and regulatory inspections goals.
- Resource (personnel) development to support future tech transfers.

The next step was to identify potential KPIs for each of the following eight departments:

- Manufacturing
- Engineering & Maintenance
- Supply Chain
- Environment, Health & Safety
- Quality Control
- Quality Assurance
- Human Resources
- Finance

CAI used a rigorous process to identify, rank, and test KPIs to verify fitness for measurement of departmental performance against site objectives. This exercise was outstanding in several ways:

- It helped the functions to better understand the performance criteria of the others, as well as their own contribution to the overall results.
- It guided the participants through the selection of the most relevant KPIs, for their function and for the overall site performance, and provided focus for the selection process.
- It contributed to strengthened management team cohesion by open communication about their challenges and issues through the KPIs.





After the prioritizing exercise, each of the selected KPIs were defined to facilitate the development of the chosen metrics using a defined template.

Three levels of KPIs were defined:

- **Level 1:** All stakeholders can see these KPIs.
- **Level 2:** Departmental KPIs, intended to be shared within the department, and/or between departments, upon the decision of the Department Heads, to assess the department performance.
- **Level 3:** Site Leadership Team KPIs, intended to be seen, managed, and shared at the site level, and needed to assess the overall site performance, across departments.

KEY PERFORMANCE INDICATOR															
Name	Reference #														
KPI Level	1	2	3												
Owner/Ownership	Related KPI(s)														
<b>Definition</b>	Explain/Describe the indicator. Identify and describe the numerator and denominator as relevant. Specify the type of numerical value to be used to express the indicator (percentage, rate, number of occurrences etc.).														
<b>Target Performance</b>	Numerical goal to achieve.														
<b>KPI Risk Level</b>	Risk associated with this KPI; to be assessed and level defined. The KPI mirrors a risk for the company if the target is not achieved. It could be a financial risk, a quality risk, a compliance risk, a supply risk, a shortage risk... <b>Type of risk associated</b> <table border="0"> <tr> <td><input type="checkbox"/> Safety</td> <td><input type="checkbox"/> Transport &amp; distribution</td> <td><input type="checkbox"/> Facilities</td> </tr> <tr> <td><input type="checkbox"/> Market supply</td> <td><input type="checkbox"/> Financial</td> <td><input type="checkbox"/> Human resources</td> </tr> <tr> <td><input type="checkbox"/> Product quality</td> <td><input type="checkbox"/> Material</td> <td><input type="checkbox"/> Environment</td> </tr> <tr> <td><input type="checkbox"/> Regulatory compliance</td> <td><input type="checkbox"/> Equipment</td> <td><input type="checkbox"/> Health</td> </tr> </table> <b>Risk Level</b> <input type="checkbox"/> High Risk <input type="checkbox"/> Medium Risk <input type="checkbox"/> Low Risk			<input type="checkbox"/> Safety	<input type="checkbox"/> Transport & distribution	<input type="checkbox"/> Facilities	<input type="checkbox"/> Market supply	<input type="checkbox"/> Financial	<input type="checkbox"/> Human resources	<input type="checkbox"/> Product quality	<input type="checkbox"/> Material	<input type="checkbox"/> Environment	<input type="checkbox"/> Regulatory compliance	<input type="checkbox"/> Equipment	<input type="checkbox"/> Health
<input type="checkbox"/> Safety	<input type="checkbox"/> Transport & distribution	<input type="checkbox"/> Facilities													
<input type="checkbox"/> Market supply	<input type="checkbox"/> Financial	<input type="checkbox"/> Human resources													
<input type="checkbox"/> Product quality	<input type="checkbox"/> Material	<input type="checkbox"/> Environment													
<input type="checkbox"/> Regulatory compliance	<input type="checkbox"/> Equipment	<input type="checkbox"/> Health													
<b>Site Objectives Alignment</b>	Describe how this KPI aligns with Incyte site objectives, how it feeds the overall business dashboard: which high level KPIs does it link with? Respect the site's budget														
<b>KPI Data</b>	<b>Frequency</b> Identify how often data will be collected. <input type="checkbox"/> Daily <input type="checkbox"/> Weekly														
	<input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Yearly <input type="checkbox"/> Other: _____ (describe)														
	<b>Collection</b> Describe the instruction for capturing KPI gathering & compiling the data (step-by-step work instruction to include data sources and systems used).														
	<b>Sources</b> Identify the sources of data utilized for this quality indicator/measure.														
<b>References</b>	List the references of SOPs, instructions, guidance documents, or/and external standards related to this KPI.														
<b>KPI Charts</b>	Describe the charts or representations to be used for this KPI, the graphic design codes and colours, provide a sample.														
<b>KPI Review</b>	Identify how often the KPI shall be reviewed, and the information provided by this measure assessed by the site leadership team. <input type="checkbox"/> Once a month <input type="checkbox"/> Once a quarter <input type="checkbox"/> Yearly <input type="checkbox"/> Other: _____ (describe)														
<b>Revision LOG</b>	Describe the revision step, dates, author, and the reasons of changes for this KPI. <table border="1"> <thead> <tr> <th>Date</th> <th>Version</th> <th>Change description</th> <th>Author</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Date	Version	Change description	Author								
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Figure 1: KPI Specification Form Template

# Count of KPIs by Department & Level

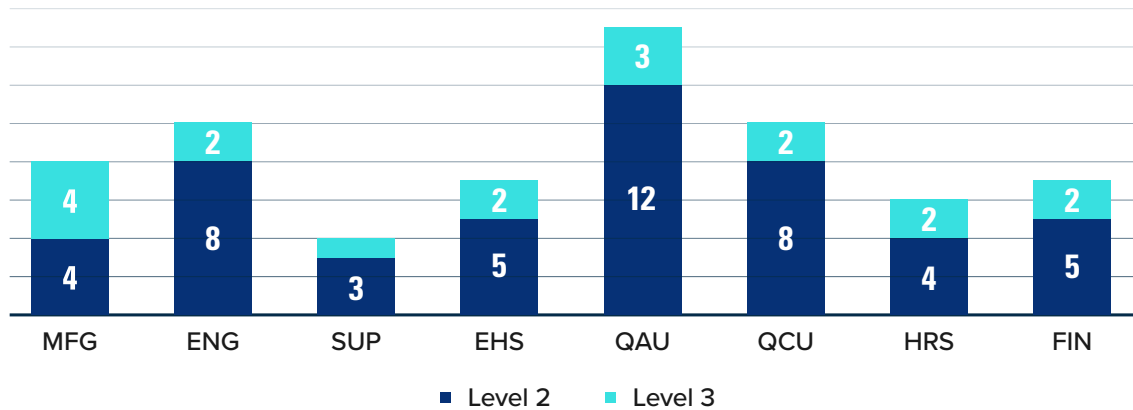


Figure 2 : KPIs by level and department

Ultimately, only levels 2 and 3 were developed to create the site and the departmental/ functions dashboards. **Eight functions** provided inputs to create the dashboards, levels 2 and 3.

- Manufacturing: MFG KPIs
- Engineering & Maintenance: ENG KPIs
- Supply Chain: SUP KPIs
- Quality Assurance: QAU KPIs
- Quality Control: QCU KPIs
- Environment, Health & Safety: EHS KPIs
- Human Resources: HRS KPIs
- Finance: FIN KPIs

The client project team identified KPI and Dashboard owners. The overall list of KPIs was made available in an Excel spreadsheet, with active links to the specification forms, for each KPI. This list is managed, revised, and maintained:

- By the KPIs owners, for each KPI, existing, new, and obsolete.
- By the Heads of Departments, to ensure the consistency and accuracy of the departments' dashboards.
- By the Site Dashboard owner, to ensure that the metrics are maintained, relevant, accurate, up to date, and consistent, and that the overall system serves the purpose of the site performance monitoring and improvement, in alignment with the site objectives.

The final step of the project was the development of the dashboards in an Excel format:

- Departmental dashboards level 2
- Site dashboard level 3

The CAI team integrated user experience design into the dashboards to be user friendly, and to facilitate their future integration in Power BI by the IT department.

This part of the project was doubtless the most sensitive one. The data and metadata defined in the specification form of each KPI needed to be validated by the KPI owners. A second on site workshop was dedicated to the review of the first versions of the mock dashboards. Heads of departments were challenged to check and ensure that:

- The departmental dashboards were relevant and compatible with the other dashboards.
- The departmental and site dashboards were meaningfully populated to yield information on the site performance, according to the site objectives.
- The data defined in the specification forms were ALCOA+ compliant.

The CAI project team ran the dashboards with mock data, to test the first versions of the dashboards, and when the users were ready to switch to real data, CAI supported the transition and addressed pending technical issues.

## TRAINING AND DOCUMENTATION

A **customized online training module** was designed and documentation designed, that provided a comprehensive knowledge of the company metrics system as it has been structured. The training was first delivered on site in the local language, and then developed as an English standalone version for the future KPI owners. This course is available on the customer Learning Management System, along with Tests, Exercises, and Lectures.

The CAI Project Team also provided a **KPIs Handbook** that describes the overall metrics system, designed for the KPIs and Dashboards owners. It will help the IT experts, along with the KPIs' specification forms, with future integration of the Excel design in Power BI.

## RESULTS

The project delivered two smart sets of tested, validated dashboards that were implemented at the client site:

- **The Site Dashboard (Level 3)** - This dashboard is intended to be managed by the Site Dashboard owner. It provides the site management team with lagging and leading indicators about the site performance, compared to the site objectives.
- **The eight Departmental Dashboards (Level 2)** - For the Departmental KPIs, each departmental dashboard is owned by the Department Head. The appointed KPIs owners manage, review, and improve the existing KPIs.

CAI's project team needed skills in flexibility, listening, coordination, cultural awareness, bilingual skills, and willingness to solve the customer issues to deliver an outstanding solution in this complex and challenging project. In addition to the defined deliverables, the process of defining the KPIs paid significant dividends for the client in terms of teambuilding, communication, and a "one-site" attitude of delivering for their patients.



**ARE YOU READY?**

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