Gartner for R&D Leaders

Convey R&D Performance Using an Executive Metrics Dashboard

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Overview

Building and maintaining an executive metrics dashboard is critical for R&D leaders to manage and report out their performance on various measures. However, knowing where to start or what to prioritize can be both unclear and challenging. By using the executive metrics dashboard to tell a story to senior stakeholders, R&D leaders can more effectively communicate R&D's value and align the project portfolio and functional output to businesswide strategy.

Key Findings

- While many R&D leaders report using metrics dashboards, most aren't happy with how well their metrics support strategic and tactical decision making.
- R&D leaders building executive dashboards must ensure their metrics demonstrate value to the C-suite or board of directors by analyzing data at the enterprise portfolio level.
- By limiting the number of metrics tracked and clearly defining their purpose, R&D leaders can ensure their dashboards yield actionable insights.
- Using data visualization and concise contextualizing statements, R&D leaders can more effectively communicate a story with the metrics they report to senior leadership.

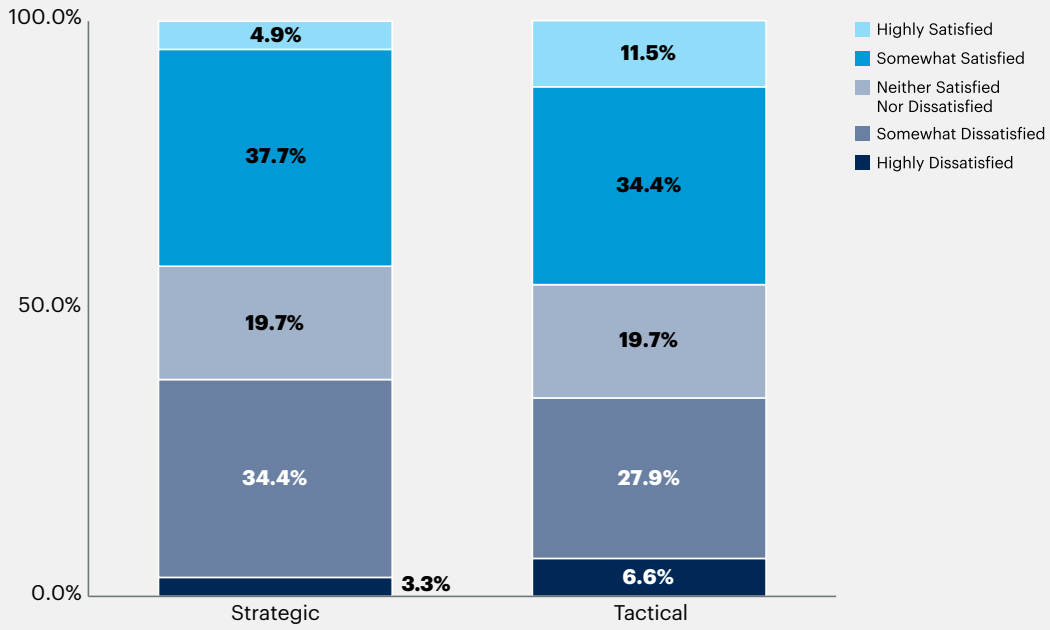
Recommendations

R&D leaders responsible for leadership, operations and management should:

- Demonstrate R&D's value to senior business stakeholders by using executive dashboards to communicate a compelling narrative about R&D's functional strategy and performance.
- Identify the most impactful R&D metrics to add to their executive dashboard by choosing metrics that are appropriate for the audience, relevant to key senior stakeholders and support decision making on the key issues leaders face.
- Measure a curated list of metrics accurately by standardizing metric definitions, clearly assigning data roles and responsibilities, and setting thresholds to evaluate performance against the metrics.
- Communicate the data on their executive dashboards with senior leadership using visual charts and concise descriptions and action steps to drive decision making.

Metrics dashboards are essential tools for R&D leaders to assess their performance against a wide variety of goals in a quick, easily digestible way. A majority of Gartner R&D member companies use a dashboard to review their R&D metrics. However, when surveyed, most R&D leaders are unhappy with how well their R&D metrics support strategic and tactical decisions (see Figure 1).

Figure 1. Satisfaction With How Well R&D Metrics Support Strategic (and Tactical) Decisions



n = 61

Q: "In general, how satisfied are you with how well your R&D metrics support strategic (and tactical) decisions?"

Source: 2019 Gartner R&D Metrics Dashboard Survey
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R&D leaders who are building or revamping their executive dashboards should use their dashboards as a tool to create a compelling story about functionwide performance. Some examples of these "narratives" might include:

- Describing the health of the overall R&D project portfolio
- Demonstrating functional performance after expanding R&D's global footprint into adjacent markets
- Visualizing development progress against the company's product or technology roadmap

Executive dashboards should drive senior leadership's decision making on critical issues. As such, these tools should be relevant to the key business and strategic outcomes of your organization's corporate and R&D strategy.

To convey a persuasive, credible narrative about R&D's performance, the Gartner R&D research team identified three key steps to effectively designing and implementing an executive dashboard:

- Selecting the right metrics for your story
- Measuring those metrics accurately
- Communicating those metrics as a part of a story that aligns with R&D's goals

Select the Metrics That Tell Your Story

One of the many challenges with compiling an executive dashboard is selecting metrics that accurately and directly measure performance against different functional goals. Unfortunately for R&D leaders, the number of R&D metrics available is overwhelming. Over the years, the Gartner R&D research team has compiled a list of over 100 metrics that R&D leaders use to track performance as they try to better benchmark and demonstrate R&D's progress toward accomplishing certain goals or milestones. Rather than including all metrics related to functional performance, instead, consider measures that help create a compelling narrative for R&D's progress as it relates to your executive audience.

Include Metrics Relevant to Senior Stakeholders

As any R&D leader can imagine, trying to communicate and report dozens of metrics to the C-suite or board of directors is ineffective at best and detrimental to R&D goals at worst. Making sure the executive dashboard captures the appropriate altitude of data and includes only relevant metrics is essential. To compare and contrast the different types of metrics dashboards R&D leaders can use, see Table 1.

Table 1

	Executive Dashboard	Functional Dashboard	Project Dashboard
Audience	C-suite or board	Functional directors	Project teams
Level of Analysis	Enterprise portfolio	Business unit	Individual projects
Purpose	Value demonstration	Prioritization	Progress tracking
Sample Decision Supported	Are we getting appropriate return on our innovation investment?	How should we allocate our innovation resources within R&D?	Is our innovation project in trouble?

Source: Gartner

Design Effective Metrics

Instead, R&D leaders should focus on the metrics that matter most to convey their story to senior leadership. Typically, this means selecting 10 or fewer effective metrics to populate the executive dashboard. Tailoring the aspects of functional performance that R&D leaders track will keep the overall narrative clear and provide meaningful data points to supplement the story. To understand what makes a metric effective, see Table 2.

Table 2

Attribute	Description
Precise	Has an objective, quantifiable data output
Clearly Defined	Has a consistent definition across the organization
Articulated in User Language	Understandable to business (that is, non-R&D) audiences; no jargon or technical language
Actionable	Directly drives decision making and/or planning
Stakeholder Relevant	Relevant to all stakeholders who will review it, rather than a subset

Source: Gartner

Build Actionable Metrics Aligned to Strategy

The metrics used in an executive dashboard must align to corporate and business strategy. When building their dashboard, R&D leaders must build a clear logical chain that links corporate goals, business objectives, functional objectives, R&D activities that impact those objectives and, finally, ways to measure those activities.

To ensure metrics on the executive dashboard are both relevant and actionable, R&D leaders can select the best option in a series of steps:

1. Articulate the problem/issue that the metric will address (for example, alignment with strategic goals, speed of execution).
2. Ensure the metric will yield data that is appropriate and relevant for an executive-level audience.
3. Understand how the metric will solve the identified problem or support decision making on the issue.

Some business outcomes, like return on investment, are difficult to quantify in an R&D context. Given that product development is a multifunction activity, it is equally challenging to isolate R&D's contribution to sales revenue and other financial outcomes. R&D leaders should agree upon and define proxy measures, such as the net present value (NPV) of projects in active development, vitality index or the new product success rate. With stakeholder buy-in and agreement upon the appropriate metrics to use, R&D leaders can present data in context and temper criticism and skepticism of the metrics' validity.

Measure the Metrics Accurately

While selecting the right metrics to track is a critical first step, R&D leaders must ensure these measures accurately reflect the outcomes of R&D activities. One major issue with metrics measurement is the misinterpretation of metrics: ambiguity in metrics definitions leads to confusion on the exact meaning, data source and scope of the metrics. Ultimately, if key stakeholders lack confidence in the metrics' validity, the executive dashboard becomes less actionable.

To prevent this uncertainty, R&D leaders must standardize metrics definitions. Clearly defining metrics, sources and calculation methods will better align senior stakeholders on the value and limits of the data presented on the executive dashboard. Embedding the relevant contextual guidance in these dashboards also helps establish a common, companywide understanding of the metrics featured in reporting data. Whenever possible, R&D leaders should align their metrics definitions and reporting standards with cross-functional partners to "speak their language" and improve overall outcomes across teams.

Establish a Clear Process for Metrics Data Management

Metrics measurement requires R&D leaders to create a well-defined process to collect and review data. Clarifying the roles and responsibilities for data retrieval and management is critical to ensuring accurate, up-to-date and scalable metrics data. Assigning data ownership and the frequency of reporting, for example, holds team members accountable to delivering reports at a regular cadence.

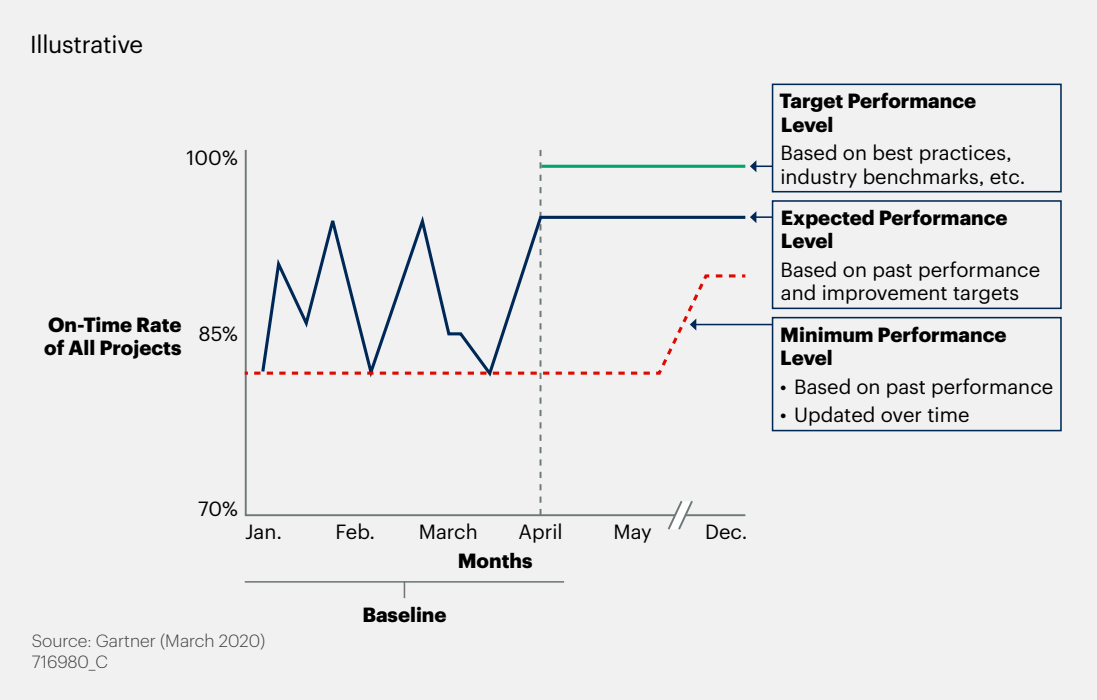
Different team members should take part in the process of collecting, quality checking and analyzing metrics data with a shared understanding of the data management life cycle as well as the purpose of collecting the given metrics' data. This will improve the quality of the data while creating a scalable system to report results out to the relevant stakeholder group. Based on conversations and survey data from R&D leaders, Microsoft Excel, Tableau, Microsoft Power BI and in-house/proprietary solutions are the most common software tools used to manage R&D dashboards at member organizations.

Define Performance Thresholds for Metrics

After creating a system for collecting and analyzing metrics data, R&D leaders should set expectations for performance against the metrics. To do so, R&D leaders can start by reviewing past activity data at their company to set the lower bound of expected performance. If no past data is available, using industry benchmarking or past expectations is an acceptable starting point. Update the minimum level of performance periodically as more data becomes available and a baseline is clear.

Next, R&D leaders should set a target performance level based on best practices from progressive companies, long-term goals set by the C-suite or board of directors, and/or other benchmarks of highperforming companies. These target performance levels should be ambitious outcomes that R&D can expect to eventually achieve. Finally, R&D leaders must set an expected performance level between these two performance level bounds to create a realistic path to achieving the ultimate performance (see Figure 2). This expected performance level reflects past execution against a metric as well as improvement targets that will bring the metric's output to the target level.

Figure 2. How to Define Metrics Performance Thresholds



Source: Gartner (March 2020)
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Including senior stakeholders, such as members of the C-suite and the board, is essential to creating appropriate, realistic thresholds for metrics. Aligning fair performance levels for the NPV of products in active development, for example, encourages open dialogue about the company's long-term vision for R&D and the challenges of improving performance against metrics given the current resource allocation.

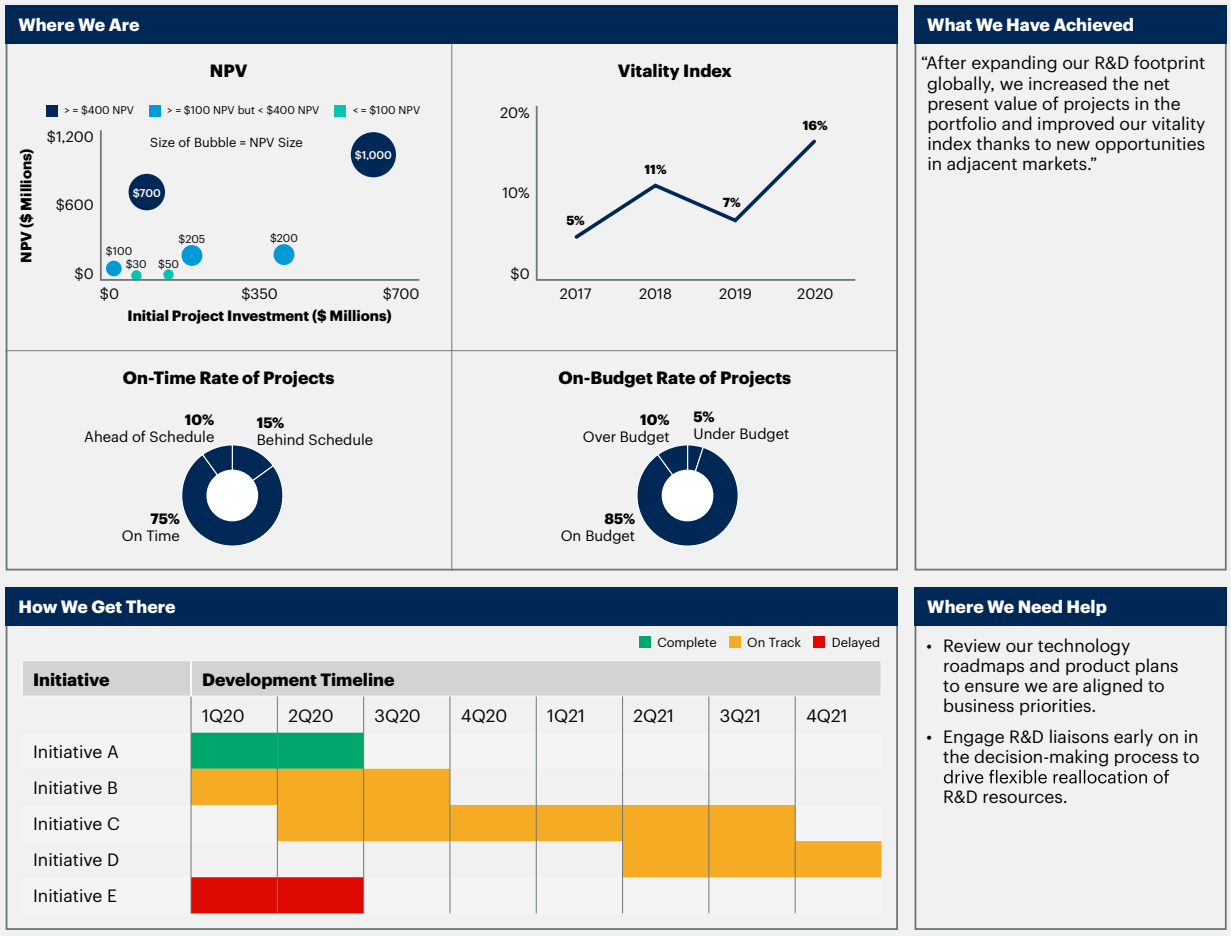
Communicate Your Story Effectively

Data visualization is an incredibly powerful tool to develop a data-driven narrative that will provide the Csuite and board of directors with the insights they need to make key decisions for the business. As such, R&D leaders should use a visual dashboard to report data from metrics to engage senior leadership and paint a compelling story about performance and progress against goals. Based on conversations and Gartner survey data, most R&D leaders report metrics data to senior leadership on a monthly or quarterly basis.

Rather than simply presenting the most up-to-date data available while reporting, try to incorporate the executive dashboard as a complement to the full R&D presentation. Do not recite data that could be easily digested in an email or one-page summary.

Narrative-focused executive dashboards should include visual snapshots of top-level performance against metrics as well as concise statements that contextualize the data (see Figure 3). By including data on current performance as well as a roadmap to achieving the next goal, stakeholders will better understand the path forward. Adding a final section that details next-step requests from senior leadership adds urgency to the presentation and creates tangible action items for stakeholders to address.

Figure 3. R&D Dashboard Snapshot



Source: Gartner
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Revisit Your Executive Dashboard Periodically

After building or revising the executive dashboard, it is important to periodically review the metrics selected, the quality and frequency of metrics data measurement, and the effectiveness of the data in communicating a clear narrative to senior leadership.

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Conclusion

Executive dashboards are powerful tools to drive senior business leaders' decision making at the functional and organizational level. The relevance and actionability of executive dashboards are crucial to successfully demonstrating R&D's value and communicating progress to the C-suite and board.

R&D leaders must ensure they select effective metrics that are relevant to stakeholders and closely align their executive dashboards to key strategic goals. Clearly defining each metric and the individuals responsible for data collection and management is essential to measuring these metrics. Additionally, setting thresholds for metrics performance in consultation with senior stakeholders creates a common understanding of ambitions and limitations. Finally, R&D leaders can more effectively communicate the story their metrics tell by combining data visualizations and brief, targeted statements that complement their overall presentation to the C-suite or board about their performance against goals. Doing so will enable senior stakeholders to make data-driven judgments about the path forward for the R&D function and organization as a whole.

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