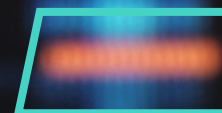


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# Preventing Dangerous Trade-Offs in Your R&D Portfolio



R&D leaders responsible for portfolio management struggle to prevent transformational innovation opportunities from being traded off for incremental projects. Strengthening resourcing rules improves portfolio decision quality and increases the likelihood of meeting long-term growth goals.

# Overview

Many research and development leaders are concerned about the balance of resources in their portfolios. Despite an increase in the amount of funding that organizations initially allocate to transformational innovation projects, R&D leaders responsible for portfolio management commonly find themselves “trading off” — delaying, killing or scoping down — longer-term, transformational innovation opportunities in favor of shorter-term, incremental projects. This takes a heavy toll on portfolio health and puts organizations at greater risk of missing their five-year revenue growth goals.

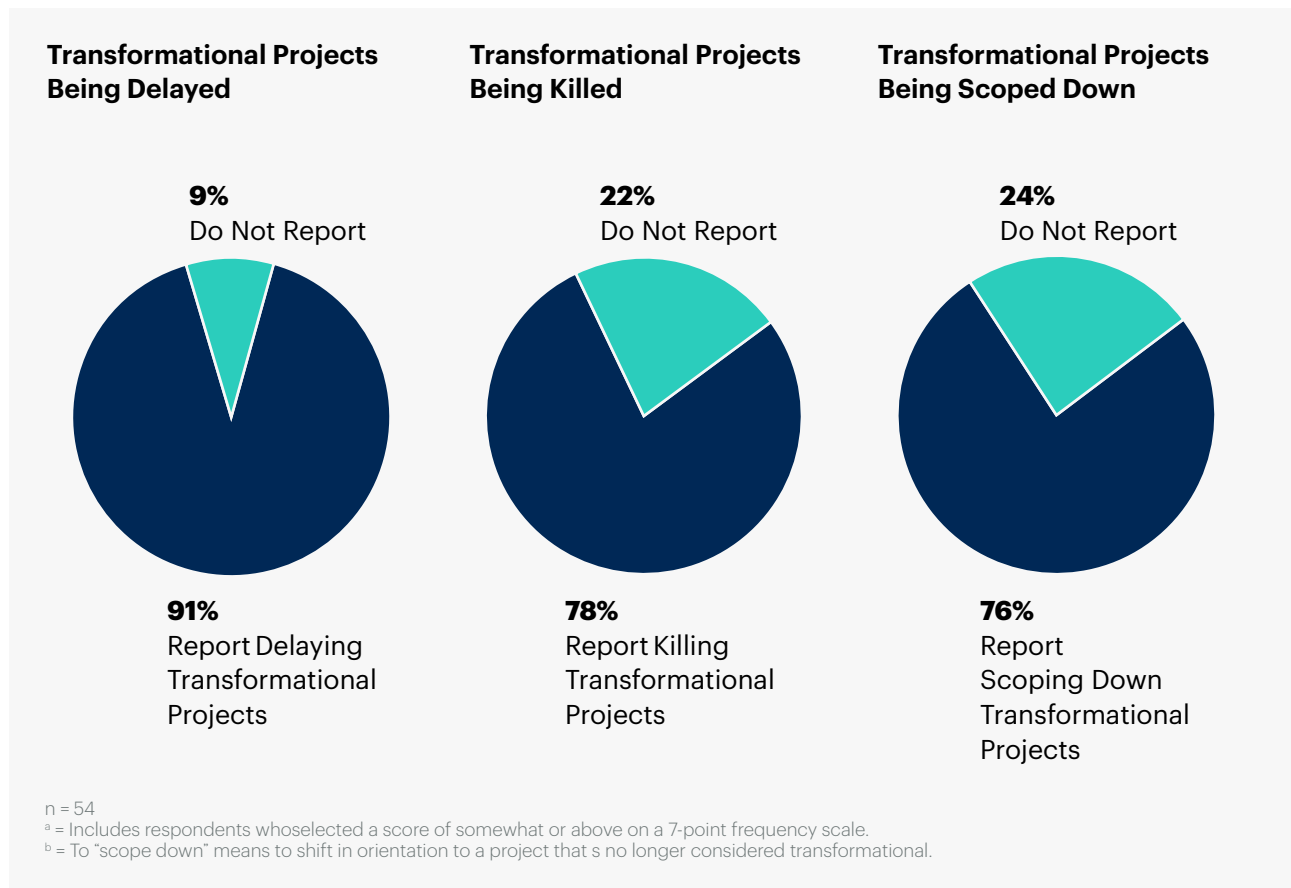
To improve R&D portfolio health, leaders should not further clarify the attractiveness of transformational investments. Rather, R&D leaders should concentrate on helping their business partners avoid making poor portfolio decisions. They can do this by guiding the business away from lower-value incremental projects, as well as strengthening limits on R&D resources available for incremental work.

# Incrementalism Is Killing Transformational Innovation — at the Expense of Growth

## Transformational Funding Does Not Equal Transformational Progress

While R&D leaders have been successful in increasing the share of the R&D budget allocated to transformational innovation projects by 45% in recent years, the majority of Heads of R&D nevertheless report delaying, killing or scoping down (“trading off”) transformational innovation projects in their portfolio (see Figure 1).

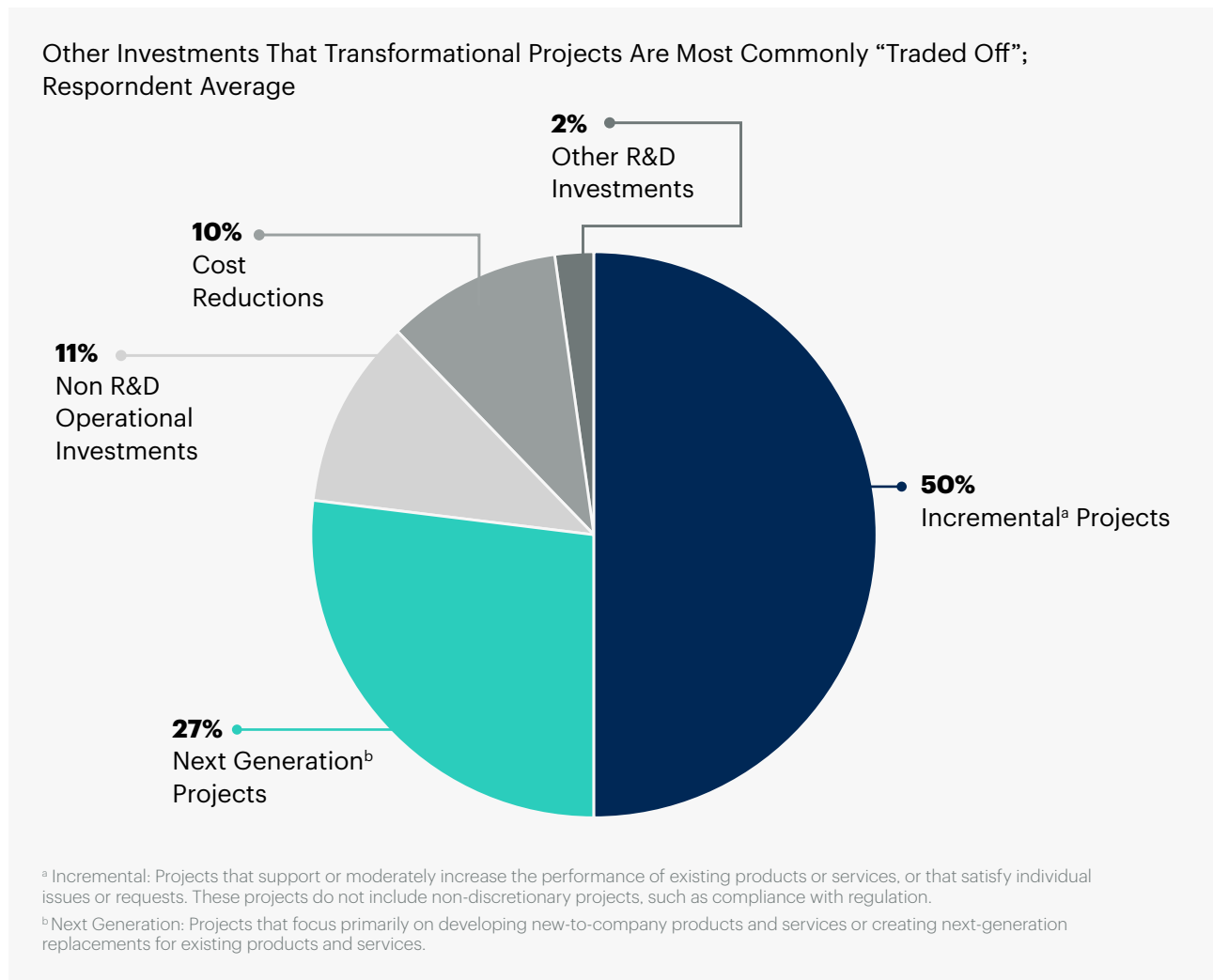
**Figure 1: Transformational Funding ≠ Transformational Progress**



Most Heads of R&D report trading off transformational innovation projects in their portfolio.

Most often, this occurs because the business asks R&D to redirect its focus to a conflicting, near-term priority: 77% of the time, R&D is trading off a transformational opportunity in favor of working on an incremental or next-generation project (see Figure 2).

**Figure 2: Irresistible Incrementalism**



Transformational projects are most commonly traded off for incremental work.

For years, several factors have been putting pressure on R&D leaders to avoid transformational projects — C-suite and business unit leaders focused on short-term results; business unit heads focused on narrower, silo-based objectives rather than on larger, cross-divisional initiatives; and even reluctance from R&D staff, who prefer the security of incremental work.

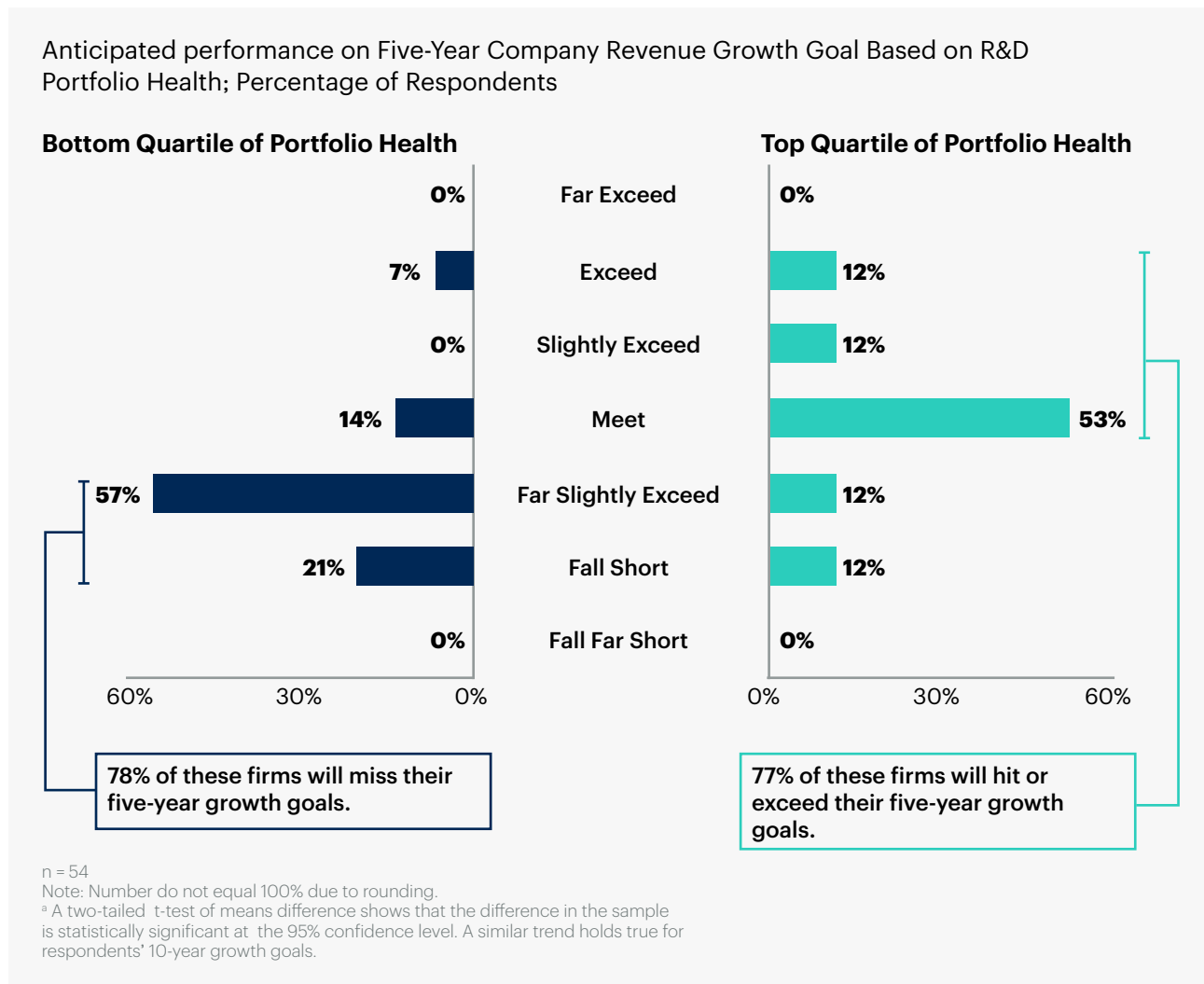
Recent changes have made it even more difficult to resist trading off transformational projects today. Business partners and activist shareholders have higher-than-ever expectations of short-term results and greater customer centricity from R&D, while empowered customers expect greater product customization. Factor in lower barriers to entry for competitors, and it is no wonder 78% of R&D leaders feel more pressure to support the business on urgent, customer-facing requests today than they did three years ago.

## R&D Portfolios can Endanger Firms' Growth Goals

Although 73% of R&D executives report that their portfolios align well with business objectives, relatively few R&D executives have portfolios that align with other key dimensions of Robert Cooper's "Portfolio Health Index." Less than half believe that their R&D portfolios contain a sufficient number of high-value projects and that their portfolio spending matches strategy. Less than one-third think their portfolios are balanced, contain an appropriate number of projects and are free of undue delays.

This poor portfolio health matters. While 77% of organizations who identified themselves in the top quartile of portfolio health expect to hit or exceed their five-year revenue growth goals, the exact opposite is true for companies in the bottom quartile of portfolio health. 78% of firms with the unhealthiest portfolios anticipate missing their company's five-year growth goals (see Figure 3).

**Figure 3: Growth Goals Are At Risk**



Most firms in the bottom quartile of portfolio health anticipate missing their five-year revenue growth goals.

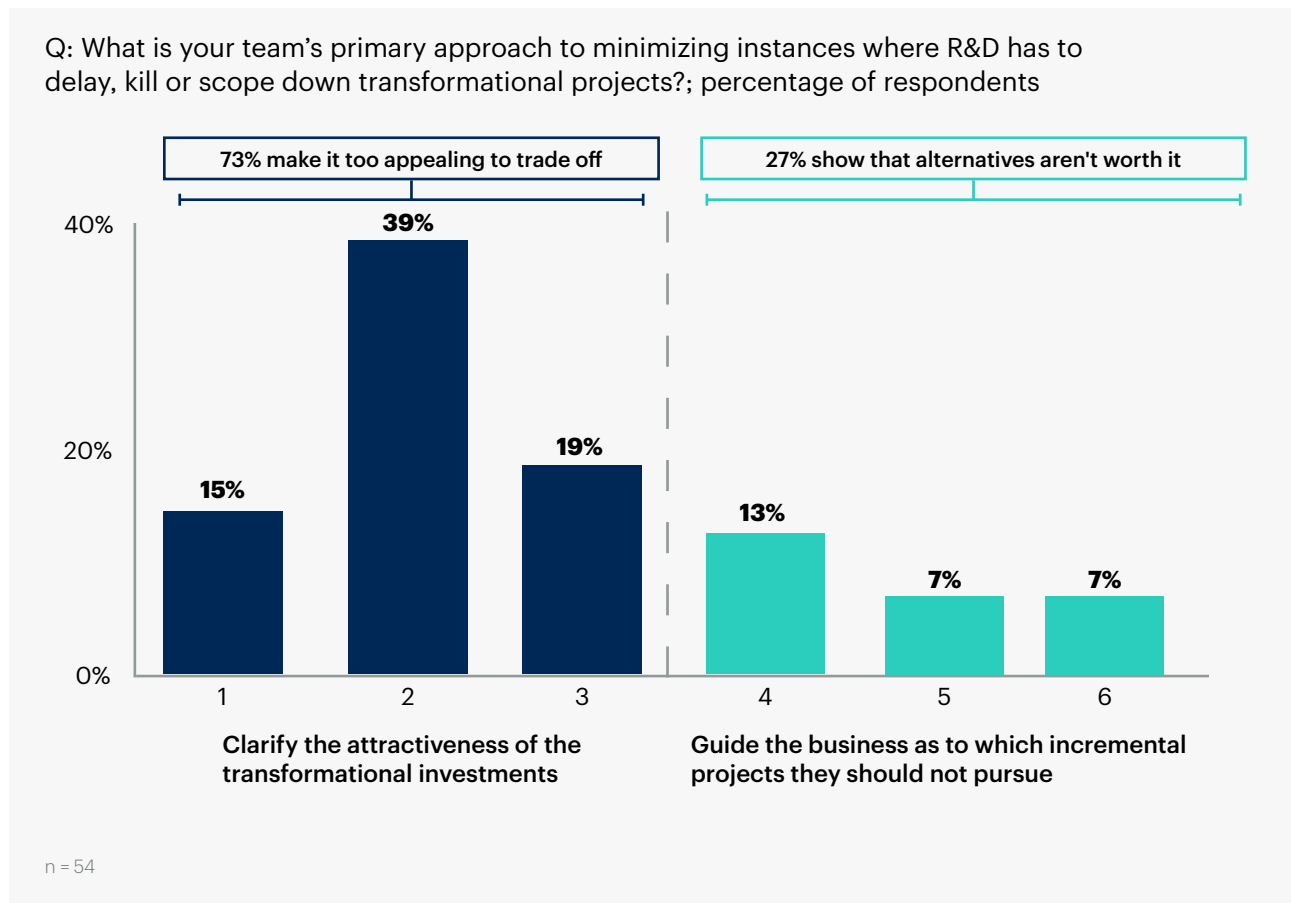
## Incremental — Not Transformational — Innovation Is the Enemy

Our research shows that companies are putting their growth goals at risk by allowing R&D resources and attention to shift away from transformational innovation projects toward more incremental work.

Most R&D organizations try to protect transformational projects in the same way they secure initial funding — by emphasizing the value that transformational innovation has the potential to generate. In fact, when asked about the primary approach taken to minimize instances where R&D has to delay, kill or scope down transformational projects, 73% of R&D leaders reported that their teams primarily opt to clarify the attractiveness of transformational investments.

However, after securing funding, R&D no longer needs to spark business partners' interest in transformational projects. Instead, they need to protect investment in transformational innovation by helping business partners instill greater innovation investment discipline, decreasing the likelihood that the business and R&D yield to near-term pressures and reallocate resources away from growth projects. Unfortunately, merely 27% of R&D leaders reported that their teams work to minimize trade-offs by primarily guiding the business away from incremental projects (see Figure 4).

**Figure 4: Trying to Sustain Faith**

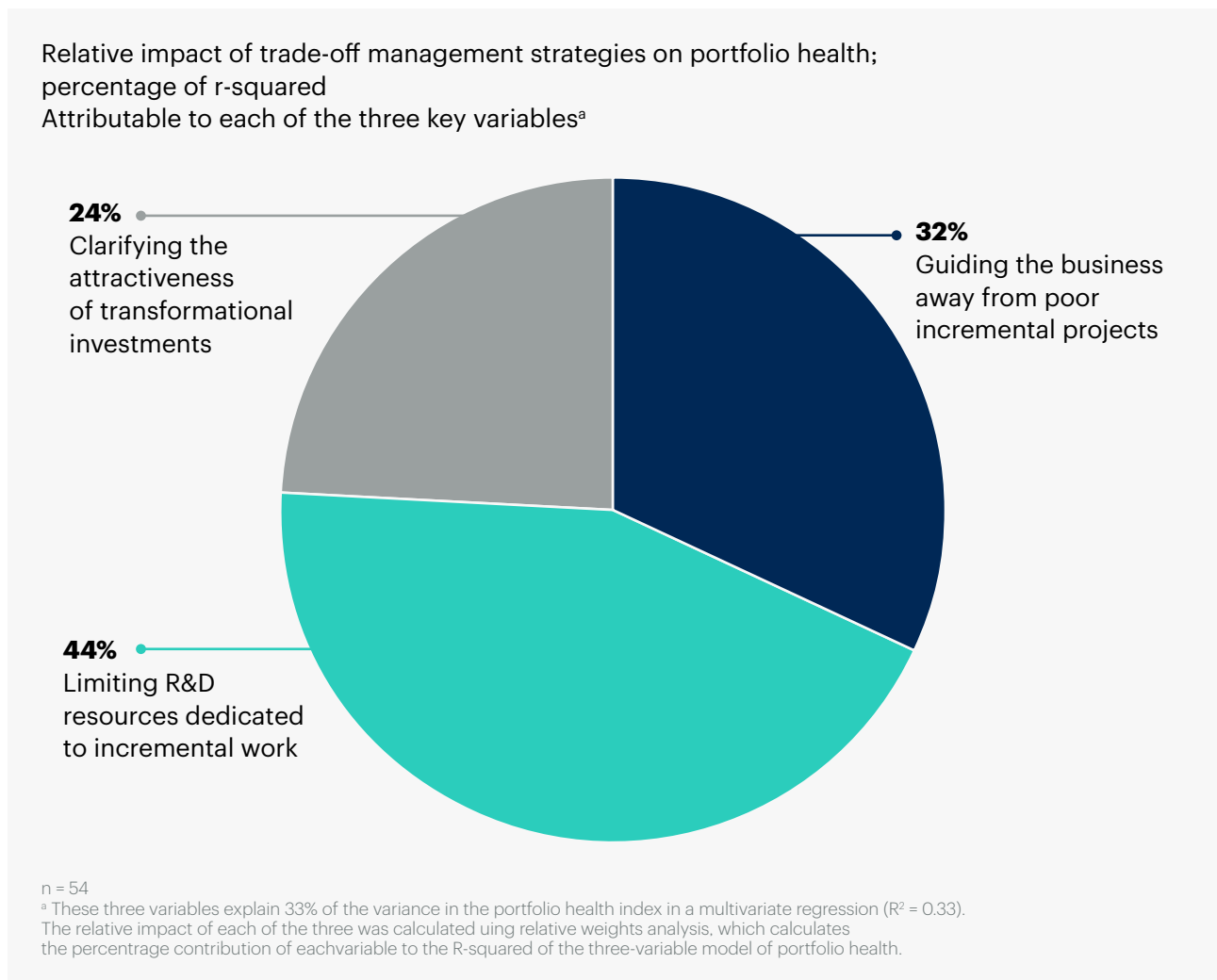


Most teams attempt to minimize trade-offs by clarifying the attractiveness of transformational investments.

Ultimately, efforts to clarify that a transformational investment is interesting, achievable or strategically impactful are simply not enough to overcome the gravity of day-to-day pressures that chip away at executives' commitment to transformational innovation investments.

Our quantitative research shows that attempts to strengthen the business' belief in the value of transformational projects are significantly less effective at minimizing trade-offs and improving portfolio health. Rather, strategies aimed at helping the business avoid making poor, short-term decisions under pressure have proven to be much more successful (see Figure 5).

**Figure 5: Room for Improvement**



Clarifying the attractiveness of transformational investments is insufficient for preventing trade-offs.

When we studied the ways in which R&D leaders attack the trade-off challenge, we discovered some significant shortcomings. Unfortunately, not only are R&D leaders underusing the two more impactful approaches of guiding the business away from poor incremental projects and limiting R&D resources dedicated to incremental work, most are not very effective at these strategies either. When R&D fails to help business partners make good decisions, the implications on the portfolio are quite negatively significant. Barely half (51%) of R&D leaders say they are effective at guiding the business away from poor incremental projects, which can lead to R&D being nearly 50% more likely to take on low-value incremental work. Worse yet, only 28% of R&D leaders say they are effective at limiting R&D resources dedicated to incremental projects. This can more than double the likelihood that R&D will need to quickly reallocate resources earmarked for nonincremental work to help on an incremental project.

When it comes to guiding the business to make better decisions, R&D often opts to establish a rigorous project selection process to make it difficult to approve low-value projects. However, even the best project selection processes are vulnerable to poor data supplied by project requestors. Business partners often miss or misstate critical information, given time pressures and lack of easy access to or awareness of information. In some cases, they lack the inclination to paint projects in a negative light. Therefore, if R&D wants its business partners to make better decisions regarding innovation investments, it will need to supply better information by filling business partners' critical information gaps.

Likewise, when attempting to limit the resources available for incremental projects in the first place, R&D commonly uses tactics such as budget caps and trying to improve business partners' understanding of the importance of resourcing restrictions. Nevertheless, when pressed by urgent needs, the business will consistently push R&D to flout its limits. To address this, R&D needs to go beyond establishing preset limits on funding or staff allocated to incremental innovation by strengthening project resourcing rules.

## Better to Attack What Tempts

To combat the pull toward incremental work, R&D should guide business partners away from poor incremental project decisions and strengthen the limits on R&D resources dedicated to incremental projects.

### **Imperative 1: Fill Business Partners' Critical Information Gaps**

Plagued by shortcomings such as overly optimistic demand forecasts, simplified cost estimates and missed interdependencies, 69% of R&D leaders admit that the quality of their project estimates is only fair to poor. Despite CTOs' efforts to provide business partners with project screening guidance through mechanisms such as portfolio review committees, explicit innovation definitions, project scorecards and business case templates, there is more information than ever for the business to collect and analyze, and less time than ever to do it.

As a result, business partners often struggle to conduct high-quality evaluations of potential incremental projects. To address this, R&D leaders must fill in business partners' information gaps by providing critical supplemental data. R&D must make project information more complete by improving the transparency of the full benefits and costs of incremental projects, as well as make project information more accurate by contextualizing it with new data sources.

### **Imperative 2: Strengthen Project Resourcing Rules**

When it comes to ensuring that resources allocated to transformational innovation remain intact, R&D leaders commonly rely on two approaches to limit resources dedicated to incremental work: capping the amount of funding allocated to each type of innovation project or creating separate teams responsible for each project classification. Regardless, 89% of R&D leaders agree or somewhat agree that resources earmarked for nonincremental projects get dragged into incremental work.

Too often, the business compels R&D to violate predetermined limits on resources allocated to incremental work to accommodate urgent, unplanned requests. Decision makers in R&D then struggle to make principled resourcing decisions under considerable pressure and with minimal guidance, typically leading to ineffective and inefficient outcomes.

To ameliorate this shortcoming, R&D leaders must strengthen project resourcing rules to avoid selecting unnecessarily costly options. R&D must create decision rules that direct incremental projects to lower-cost resourcing options by default and specify preset resourcing options to ensure the lowest-cost trade-off is consistently selected.

# Conclusion

While many R&D organizations have made strides in increasing funding initially allocated to transformational innovation opportunities, the majority of R&D leaders still eventually find themselves delaying, killing or scoping down transformational innovation opportunities. This is due to intense pressure from business partners and other stakeholders to focus instead on near-term, incremental projects. The pattern not only has ramifications for organizations' portfolio health, but is also detrimental to firms' ability to meet or exceed their five-year revenue growth goals.

While most organizations attempt to protect transformational projects by further emphasizing the attractiveness of transformational investments to stakeholders, our research has uncovered a better way to improve portfolio health: help the business avoid poor project decisions concerning incremental projects. Namely, R&D must work to:

1. Guide the business away from poor incremental projects by filling in critical information gaps.
2. Limit the resources R&D dedicates to incremental work by strengthening project resourcing rules.

R&D leaders can achieve this by supplying the business with contextual information that clarifies the full costs and benefits of incremental projects requested, as well as preestablishing decision rules that default project resourcing to lower-cost approaches to avoid unprincipled, in-the-moment decision making.

## Key Findings


- **Too often, R&D's transformational intentions turn into incremental realities.** Most R&D executives report “trading off” transformational innovation opportunities in response to intense pressure from the business to support near-term, incremental projects.
- **Mismatched R&D portfolios endanger firms' growth goals.** Relatively few R&D executives characterize their portfolios as healthy. This matters; most companies with the unhealthiest portfolios anticipate missing their companies' revenue growth goals.
- **Business partners don't need more faith in transformational projects; they need help avoiding poor choices.** Most R&D organizations try to “sell” the value of transformational innovation. It's more important to help avoid making poor project decisions under pressure.
- **Business partners often have critical information gaps that lead them to select low-quality, incremental projects.** Too often, the business lacks critical information that would illuminate projects not worth the cost.
- **Stronger project resourcing rules are needed to limit resources dedicated to incremental work** This strategy requires setting up new project resourcing rules in advance that R&D can stick to under pressure.

## Recommendations

- **Show “what-if” scenarios that illustrate the impact of portfolio changes:** Demonstrate how proposed changes in portfolio funding will affect key business outcomes, highlighting the adverse effects that adding incremental work can have.
- **Reality-check performance projections with historical data:** Compare the projected performance of projects in the portfolio to historical project performance to initiate a dialogue about where the business may fall short of growth goals.
- **Conduct expert-led due diligence to certify project data:** Validate business-case data quality by soliciting input from cross-functional experts who rate the soundness of project analysis and provide recommendations for improved estimates.
- **Establish resourcing plans for projects based on the nature of the capabilities required:** Build resourcing plans to consistently route projects to the most efficient resourcing option based on the extent to which the capabilities required are differentiated or can be sourced externally.
- **Spell out resourcing protocols for instances where demand exceeds supply:** Establish resourcing guidelines that specify the resourcing options decision makers have if incremental project demands exceed pre-established limits.

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