How to Assign the Right Metrics to Drive Portfolio Performance
In the era of digitization and hyper-competitive, volatile markets, it is crucial that companies make smart, fact-driven decisions about portfolio investments.

These decisions must continue to align with the strategic direction of the organization, which is constantly evolving to adapt to change.

Asking the right questions to support sound decisions around project and investment prioritization is key to portfolio success.

- Are you asking the right questions?
- Are you measuring the right things to make the best investment decisions?

What you measure impacts how you make decisions. Choosing the right metrics to measure portfolio performance is critical to success.
Most established companies forecast the financial impact of their innovation and R&D investments

However, many don’t know that the metrics they assign and measure portfolios against can heavily influence performance. Sometimes with unintended effects.

This ebook explores typical portfolio and project evaluation metrics and dives into:
- what these metrics indicate,
- the decision-making behaviors they drive,
- and the consequences of using them.

We’ll also cover how using strategic qualifiers helps paint a more accurate picture and bring context to investment decisions.
Predicting the future

One foundational assumption: investments prioritized by an appropriate metric will always deliver on that metric.

Seasoned innovation and R&D experts know you can never truly predict what’s to come.

In updated new product development (NPD) processes, the voice of the customer, market-driven innovation and design thinking are iteratively part of NPD work, bringing teams closer to knowing precisely what the consumer wants.

However, consumers can be fickle. You will never know if your innovations will resonate.

Regardless, the better your team plans and makes decisions around portfolio investments and metric prioritization, the better chance you have at success.
Identifying the right metrics to drive performance

The metrics you choose to measure portfolio performance against will impact performance.

There are three steps to selecting and prioritizing metrics:

1. Translate corporate strategy into innovation portfolios and objectives.
2. Identify financial metrics to forecast, prioritize and measure.
3. Augment financial forecasts with strategic qualifiers.
Step 1

Translate corporate strategy into innovation portfolios and objectives.
Bring strategy to life

Typically, corporate strategy is something hiding in a Microsoft® document that is reviewed quarterly or annually by an executive team.

Bring this strategy to life by aligning goals with innovation portfolios and their specific objectives.

Tackling this first helps ensure investments are a strategic fit for future growth plans.
Once the organization establishes its primary corporate innovation strategy and financial objective, business units can each establish their own financial objective and innovation strategy to support the overarching goal and direction.

Business units typically serve different markets and play different roles in supporting the organization, so goals and innovation strategy can differ from the corporate approach. However, business units should still support the company’s umbrella goal and strategy.
Similarly, individual portfolios are assigned an innovation strategy to support the business unit.
The next key action is to assign a prioritization metric to each portfolio. This is the primary metric used to rank investment opportunities on project decisions. It supports the portfolio’s innovation strategy and can heavily influence performance.
Balance risk

Breaking down the enterprise-wide strategy into organizational portfolios by business units, and then by functional portfolios, enables the enterprise to **balance risk**. Assigning specific objectives for each business unit and portfolio reinforces the strategic direction of the innovation program so leaders know teams are working on projects that are moving the organization forward in the right direction.

The financial objectives each portfolio adopts should be:
- Defined in similar terms as individual investment opportunities (projects)
- Forecastable
- Measureable

This important first step of translating corporate strategy into innovation portfolios and objectives is the foundation to prioritizing metrics to guide strategic portfolio performance.
Step 2

Identify financial metrics to forecast, prioritize and measure.
Identify appropriate financial metrics to forecast, prioritize and measure

The next step is to identify the best financial metrics to forecast, prioritize and eventually measure the portfolio performance against. Understanding how the prioritization metrics impact project decisions and portfolio outcomes is paramount when assigning portfolio prioritization metrics.

We'll cover the behaviors driven – along with potential unintended consequences – of using these classic financial metrics as a prioritization metric:

• Net Present Value
• Return on Investment
• Stabilized Annual Revenue
• Gross Margin

Want to explore this further? Check out the Appendix for a deep dive into each of these metrics.
Net Present Value (NPV)

NPV shows the total economic benefit over the life of an investment. It is useful when comparing investments of different sizes.

<table>
<thead>
<tr>
<th>FINANCIAL METRIC</th>
<th>PRIORITIZING BY NPV CAN WEIGH DECISIONS TOWARDS:</th>
<th>POSSIBLE UNINTENDED CONSEQUENCES</th>
</tr>
</thead>
</table>
| Net Present Value (NPV) | • Larger investments because they assume a larger payback  
• Investments that payback earlier instead of later  
• Investments with longer lifespans – as more time typically indicates more cash flow – unless a standard timeframe is applied when comparing investments | • Negative NPV investments may be ignored, without consideration to strategic fit  
• Projected cash flows can be error prone, which can lead to decisions based on flawed information |
Return on Investment (ROI)

ROI shows the efficiency of an investment compared to competing investments. It is useful for comparing investments of similar sizes.

<table>
<thead>
<tr>
<th>FINANCIAL METRIC</th>
<th>PRIORITIZING BY ROI CAN WEIGH DECISIONS TOWARDS:</th>
<th>POSSIBLE UNINTENDED CONSEQUENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI</td>
<td>• Investments with low costs&lt;br&gt;• Investments with a longer time in the market</td>
<td>• Comparisons between investments may be misleading, as the “size of the prize” is unclear, unless a standardized timeframe is included when comparing similar-sized investments&lt;br&gt;• Strategic fit for the company isn’t considered, as efficient investments don’t necessarily map to strategic investments&lt;br&gt;• Overall economic value to the company isn’t maximized if the entire budget isn’t used</td>
</tr>
</tbody>
</table>
**Stabilized Annual Revenue**

As a product matures in the market, Stabilized Annual Revenue shows the annual contribution of cash from earlier investments without considering the cost of the project.

<table>
<thead>
<tr>
<th>FINANCIAL METRIC</th>
<th>Prioritizing by Stabilized Annual Revenue Can Weigh Decisions Towards:</th>
<th>Possible Unintended Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stabilized Annual Revenue</td>
<td>• Large investments with large sales potential&lt;br&gt;• Seemingly stable investments over disruptive investments</td>
<td>• Assumption of market viability in future years may be unwarranted&lt;br&gt;• Initial investment costs may be too large to recover from&lt;br&gt;• Investments in multiple products can compete for the same expected revenue, known as “product cannibalization”</td>
</tr>
</tbody>
</table>
## Gross Margin

Gross Margin shows the efficiency of converting raw materials into cash.

<table>
<thead>
<tr>
<th>FINANCIAL METRIC</th>
<th>PRIORITIZING BY GROSS MARGIN CAN WEIGH DECISIONS TOWARDS:</th>
<th>POSSIBLE UNINTENDED CONSEQUENCES</th>
</tr>
</thead>
</table>
| Gross Margin     | • Incremental line extensions with well-defined value chains and known market conditions | • Investment in disruptive or nascent products may be reduced because of low efficiency value chain (e.g. cost of inputs, introductory pricing)  
                  |                                               | • Strategic fit for the company isn’t considered, as efficient investments don’t necessarily map to strategic investments |
Prioritization metrics by strategy

Suitable prioritization metrics to select based on a portfolio’s innovation strategy:

- **First to Market**
  - Net Present Value
  - Return on Investment
  - First Year Revenue
  - Payback Period

- **Fast Follower**
  - Net Present Value
  - Return on Investment
  - Stabilized Annual Revenue
  - Market Share

- **Niche Defender**
  - Stabilized Annual Revenue
  - Market Share
  - Gross Margin
  - Incrementality

- **Reactive (No Strategy)**
  - Gross Margin
  - Return on Investment
Step 3

Augment financial forecasts with strategic qualifiers.
Augment financial forecasts with strategic qualifiers

The final step is to supplement financial forecasts with strategic qualifiers because financial metrics don’t always drive the best behaviors.

Financials provide baseline information and can be a platform for extracting more context to aid decision making.

Why are financial metrics good for prioritization?

Because they are:
• Easily understood and communicated
• Easily compared and ranked
• Easily aggregated and reported
• A foundation for deeper investigation

Why aren’t financial metrics always best?

• Financial forecasts are estimates, not absolute truth
• There are many unknown variables in technology and market development
• You can’t predict the future: prior market performance does not suggest future market performance
Non-financial, strategic qualifiers should be applied to investment decisions – in addition to financial metrics – to fill in the details and provide a richer, more holistic view of investment opportunities.

Classic strategic qualifiers include:

<table>
<thead>
<tr>
<th>Categorical Buckets</th>
<th>• a defined business unit, market, application, region, brand, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execution Risk</td>
<td>• the risk of completing a project</td>
</tr>
<tr>
<td>Market Risk</td>
<td>• the risk that a project may or may not perform as expected</td>
</tr>
<tr>
<td>Planning Horizon</td>
<td>• how long into the future the investment will occur</td>
</tr>
<tr>
<td>Launch Window</td>
<td>• the window of opportunity for a product to launch and still hit target goals</td>
</tr>
<tr>
<td>Technical Readiness Level</td>
<td>• the maturity of the technology being used</td>
</tr>
</tbody>
</table>
Unlike financial metrics, strategic qualifiers are typically:

- **Not forecasts or guesses**
- **Stable over the lifecycle of a project**
  - Exceptions include technical readiness level and risk, which mature during the product lifecycle
- **A representative input from the value chain**
- **Standardized across an enterprise for simple aggregation and reporting**
Now it’s your turn

Armed with the information of applying strategic qualifiers to portfolios alongside prioritization metrics, your team should have the information you need to make decisions on which projects and initiatives to fund and which ones not to.

This ebook has highlighted that:

- Innovation strategy can be driven through the use of appropriate financial metrics
- Specific metrics can be used to drive specific behaviors and resulting performance
- Strategic qualifiers should be applied to foundational financial metrics to capture the real value of investment opportunities

*Take a look in the Appendix for a walk-through example of this 3-step exercise and a deep dive into financial metrics.*
To drive portfolio performance aligned with innovation strategy across your organization, you need a platform to communicate that strategy down and across your organization, collaborate on shared data, manage and optimize your portfolios, measure outcomes, and communicate information back up the chain of command.

An end-to-end, decision support software platform like Accolade® significantly simplifies and automates this process while boosting effectiveness, giving corporate leaders clear visibility into what matters so they can make informed decisions based on trusted, cross-functional data.

Have questions? Contact us at Sopheon.

“Accolade is a powerful platform that can support many use cases and corporate portfolios.”

- Jason Eckert, SVP Global Research, Development and Quality, Leprino Foods Company
Appendix I & II
Appendix I:
Walk-through example of applying corporate strategy to portfolios and objectives

Let’s walk through applying strategy to portfolios in ACME Enterprise, a faux company.

In this example, ACME holds a mature place in the market and has four portfolios shared amongst three business units.
ACME’s corporate innovation strategy is a balanced strategy, meaning it is balancing an enterprise-wide portfolio across different strategic arenas.

All of the investment programs have the primary goal of collectively reaching one billion dollars in revenue from new products launched over three years.

Each business unit supports the high-level corporate strategy with defined objectives. And each portfolio determines one innovation strategy that plays to its strengths while supporting the corporate strategy. Finally, the prioritization metric for each portfolio is determined.
The big puzzle for ACME and its business units to solve is:

**Based on how each business unit plays in the market and ACME’s overall innovation strategy, what are the most appropriate prioritization metrics?**

The prioritization metrics chosen sway project decisions – and therefore outcomes – impacting the portfolio as a whole.
The Industrial business unit has adopted the Fast Follower innovation strategy, meaning it wants to quickly imitate its competitor’s innovations. Based on this decision, it has assigned Stabilized Revenue as the prioritization metric, which is consistent gross income.
The Home Goods business unit is responsible for Portfolio B. The Electronics business unit is responsible for Portfolio C. They share responsibility for Portfolio D.

Home Goods is playing in multiple market spaces so it has adopted a balanced innovation strategy.

Portfolio B’s market strategy is Niche Defender, meaning it’s trying to retain the lion’s share of a niche market. To achieve the financial objective, the prioritization for investment opportunities is by Gross Margin, which shows the efficiency of converting raw materials into cash.
The Electronics business unit has an aggressive strategy of being First to Market. They’d like to be the first to launch their product.

Portfolio C follows suit of its parent to be First to Market. The prioritization metric adopted is Net Present Value, which is the total economic benefit over the life of an investment.
The shared Portfolio D is core Research and Development (R&D), which is a typical arrangement for many large organizations.

In ACME, the prioritization metric of Target Application is a non-financial metric. Target Application captures the product application each of the core R&D projects serves.

The R&D group does not have any direct commercial upside associated with its projects. Therefore, it is not appropriate to assign a financial prioritization metric.
While different prioritization metrics are used to address the objective of each business unit, as a collective, they support ACME's overall objective.
Appendix II: Financial metrics deep dive

The following appendix describes in detail:

- how the financial metrics NPV, ROI, Stabilized Revenue and Gross Margin are calculated,
- what the metric indicates,
- behaviors that prioritizing this metric may drive, and
- potential unintended consequences.
Net Present Value (NPV)

Calculation

\[ \text{NPV}(i, N) = \sum_{t=0}^{N} \frac{R_t}{(1 + i)^t} \]

- \( R_t \) = net cash flow for a period (typically a year)
- \( i \) = discount rate
- \( t \) = period

Indication
- The economic benefit to an investor over the life of an investment
- Positive NPV suggests a profit. From a financial (non-strategic) point of view, an investment should be made.
- Negative NPV suggests a loss (an investment should not be made)
- Useful for comparing dissimilar-sized investments ("size of the prize" is observable)

Behaviors that prioritizing by this metric may drive
- Assuming larger payback, priority may be given to larger investments
- Priority may be given to investments which payback earlier (an effect of the discount rate)
- Priority may be given to investments with longer lifespans (assuming positive cash flows post-development and unless a standard timeframe is applied)

Potential unintended consequences
- Negative NPV investments may be ignored, without consideration to strategic fit
- Projected cash flows are increasingly error prone, which is not obvious when comparing single numbers, leading to potentially poor information to base decisions on
Return on Investment (ROI)

Calculation

$$\text{ROI} = \frac{\text{Gain (Loss) from Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

Indication

- The efficiency of an investment compared to competing investments
- Higher ROI suggests a better investment than a lower ROI
- Negative ROI suggests a loss
- Useful for comparing similar-sized investments (“size of the prize” is unclear)

Behaviors that prioritizing by this metric may drive

- Priority may be given to investments with low costs
- Priority may be given to investments which have a longer time in the market

Potential unintended consequences

- Comparisons between investments may be misleading without a standardized timeframe
- Efficient investments don’t necessarily suggest strategic investments
- Overall economic value to the company isn’t maximized if the entire budget isn’t used
Stabilized Annual Revenue

Calculation

Revenue = Product Sales – Returns – Discounts

Indication

- Annual contribution of cash from an earlier investment
- Stabilized revenue assumes low fluctuation and market viability

Behaviors that prioritizing by this metric may drive

- Priority may be given to large investments with large sales potential
- Priority may be given to seemingly stable investments over disruptive investments

Potential consequences

- Assumption of market viability in future years may not be warranted
- No consideration of the investment cost to achieve revenue
- Investments may be made in multiple products which may compete for the same expected revenue (e.g. not considered for cannibalization/incrementality)
Gross Margin

Calculation

Gross Margin = \frac{\text{Revenue} - \text{Cost of Goods Sold}}{\text{Revenue}} \times 100

Indication
• Efficiency of converting raw materials into cash
• Does not consider upfront investment cost, only operating costs
• Close approximation to “profitability”

Behaviors that prioritizing by this metric may drive
• Priority may be given to incremental line extensions with well-defined value chains and known market conditions

Potential consequences
• Investment in disruptive or nascent products may be reduced because of low efficiency value chain (e.g. cost of inputs, introductory pricing)
Looking to boost your innovation performance?
About the Publisher

Sopheon partners with customers to provide complete Enterprise Innovation Performance solutions including software, expertise, and best practices to achieve exceptional long-term revenue growth and profitability through sustainable innovation.

Sopheon’s Accolade® solution provides unique, fully-integrated coverage for the entire innovation management and new product development lifecycle. For the first time, businesses can access a single source of the truth across:

- Strategic Innovation Planning
- Strategy Execution
- Process and Project Management
- Project and Portfolio Management
- Strategic Portfolio Optimization
- Roadmapping
- Idea and Concept Development
- Resource Planning

Sopheon’s solutions have been implemented by 250+ customers with over 60,000 users in over 50 countries.

Contact Sopheon for more information, feedback and comments.