

WEBINAR COMPANION

The business case for optimization.

Five steps to a number the C-suite cannot wave away.

Optimization can be one of the most valuable layers of analytics a company deploys, and one of the most difficult to secure funding for. Usually that is not because leaders doubt the math. It is because they have learned to say no to anything that is not tied to strategy. This written companion to Gurobi's webinar presents a disciplined five-step process that culminates in a credible, independently validated financial case.

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01

Why good ideas get turned down

Executives get pitched constantly, and by the time "optimization" reaches them it is an overloaded word. Their default, learned over a lot of vendor meetings, is to decline anything that does not clearly serve the strategy they are already accountable for. That reflex is the real obstacle, and it is a reasonable one. If you treat it as ignorance, you lose the room. If you work with it, you have a real shot at a yes.

So the business case does not start with the solver. It starts with the strategy leadership has already chosen, and it shows where optimization is the capability that delivers it.

You get to yes faster when you stop pitching a technology and start serving a strategy the leadership team already owns.

02

Where optimization sits

It helps to place optimization in the stack leaders already recognize. Analytics and data science look at data to find patterns and predict what is likely, and that work increasingly travels under the banner of AI. Optimization sits at the decision-making core of the picture: it uses data, math, and algorithms to recommend the best action, faster and more reliably than a person can.

Here is the clean separation a leader can hold onto. Uncertainties are where machine learning and data science help, because they are about predicting what you do not control. Decisions are where optimization helps, because they are about choosing what you do control. A forecast tells you the weather is coming; optimization decides the route.

That is also why optimization can capture a substantial share of the payoff: it determines the actions the operation actually takes, and those decisions directly affect cost and revenue.

03

Optimization, in business terms

Strip out the math and optimization turns assets into decisions that produce outcomes. Naming those three columns for a specific business is often enough to make the value land.

YOUR ASSETS	THE DECISIONS	THE OUTCOMES
People, vehicles, materials, facilities, capital, inventory, and intangibles like ad space or spectrum	Assignment, routing, how much to make or buy, pricing, scheduling, and the rules themselves	Faster decisions, lower cost, higher service, automated best practice, and more profit

04

Start with strategy

Before you quantify anything, connect the work to how leadership defines winning. Five questions help frame many strategies, and optimization can play an important role in answering the last two.

1. What does it mean to win in our business?
2. Where will we play: which segments, channels, products, and regions?
3. How will we win: on cost, on differentiation, or on something else?
4. What capabilities must we be genuinely great at?
5. What management systems measure whether the strategy is working?

Optimization can serve as a capability under question four and as part of the management system under question five. It is how a company executes its chosen way to win, over and over and measurably, rather than a side project competing for attention with the strategy itself.

05

Five steps to a case the C-suite cannot dismiss

The webinar's core is a five-step process. Each step produces evidence, and the last one hands that evidence to someone with no stake in the answer.

STEP	WHAT YOU PRODUCE
1. Map decisions to outcomes	A top-down picture of how information and decisions drive the numbers leadership watches: revenue, cost, service.
2. Pick a decision area and its KPIs	One repeated decision worth improving, ideally one that already has management attention.
3. Baseline the status quo	How that decision is made today, the data behind it, and the current KPI values, using real history.
4. Build a proof-of-concept model	An optimization model on real data, compared against the status quo on the same KPIs.
5. Write the formal business case	The economic impact, quantified top-down and checked by an impartial party.

A few execution notes carry most of the weight:

- Work top-down in step 1. Start from revenue, cost, and service, then trace down to the specific decisions that move them, and separate the uncertainties (forecast them) from the decisions (optimize them).
- In step 2, choose attention, not novelty. A decision area that already sits on a leadership scorecard writes its own strategic-alignment line and shortens the path to a sponsor.
- In step 3, respect the mess. What looks like a simple decision from the outside is usually multi-step and messy on the inside. Model it with the real details and the actual history, or no one will believe the baseline.
- In step 4, compare like for like. The value is the gap between the status quo and the optimized result, on the same metric, in the same period. "Provably the best we can do" is a claim no spreadsheet can make.
- In step 5, do not grade your own homework. Have finance, an independent expert, or another impartial party test the assumptions and validate the result before the case reaches the C-suite.

06

Quantify the value, and show your work

Build the number top-down. Start with categories of benefit, break each one into specific levers, then quantify the levers you can defend. Use a range from conservative to aggressive rather than a single figure, and show every assumption so the reader can follow the arithmetic.

The discipline matters more than the size of the number. As one illustration of the method: in a revenue-optimization analysis, a single lever (the revenue earned per load on existing lanes), modeled across a conservative-to-aggressive range, pointed to roughly \$3.7M to \$14.3M a year in extra profit depending on market conditions, and that was one of nine levers identified. The point is not the dollar figure. It is that quantifying one lever rigorously, with the work shown, beats asserting a big total no one can trace.

Performance on its own is not a business case. "We can solve in minutes instead of hours" is a capability. Finish the sentence with money: it lets us re-plan more often, which is worth a specific amount.

07

Don't grade your own homework

The last step is the one most teams skip, and it is the one that earns C-level buy-in. Have an impartial party check the numbers before they reach the executive who controls the budget. Finance is likely to discount a number produced solely by the team proposing the project. A number a neutral expert has stress-tested is the one that survives the meeting. The phrase to keep in mind is plain: do not grade your own homework.

08

When someone says "why not open source?"

The most common technical objection deserves a clean answer, because it usually comes from a real and reasonable instinct. Open-source tools drove a lot of the

adoption of data and analytics, they are easy to get, and they are free, so why pay for an optimization solver?

The honest reframe is about what each kind of project is doing. A machine-learning project typically learns patterns or parameters from data. An optimization project uses an explicit model of decisions, objectives, and constraints to identify the best solution it can, or to quantify how close a solution is to the best possible one. For the decision that runs your operation every day, the question is not whether a tool exists. It is whether you get the decision you need, at the quality you need, by the time you need it. That is what a commercial solver and the support behind it are for.

Watch the full session. The recorded webinar walks through the five-step process with a live worked example: gurobi.com/resources/webinar-events/building-a-business-case-for-optimization

Don't grade your own homework.

Walk in with a validated number, not an idea:

- ✓ Tie the project to a strategy your leadership already owns.
- ✓ Quantify the value of improving one decision area against the status quo, using your organization's own figures.
- ✓ Have an impartial party validate the case before the C-suite sees it.