

ICE

PRIORITIZATION

DONE RIGHT

How to choose the right ideas without HiPPOs,
committees, and biases

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About this eBook

ICE (Impact, Confidence, Ease) is a popular idea prioritization method practiced by many product and marketing teams. ICE can be very powerful, helping make good product decisions with less debate and fewer biases. Unfortunately ICE is also quite easy to misuse, which can lead to high work overhead, massive idea banks, and choosing the wrong ideas. For these reasons the technique has become somewhat controversial lately, and some people openly warn against it.

In this eBook I'll explain why ICE is still a vital part of any product company's toolbox, what, in my experience, is the correct way to use it, and how to avoid common pitfalls and misconceptions.

Book Structure

The book has two parts:

- ICE overview—Even if you're already using ICE (or its derivative RICE) I highly recommend reading this part. Some of the recommendations divert from common practices..
- Frequently Asked Questions—These deal with some of the more difficult and controversial aspects of ICE, as well as general questions such as whether you should use ICE and RICE.

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What is ICE?

Idea	Impact [0-10]	Confidence [0-10]	Ease [0-10]	ICE Score [I x C x E]
Community tab	7	2	8	112
Update submit flow	5	5	3	75
Add PayPal billing	8	1	5	40
Double opt-in	1	4	3	12

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Idea Bank with ICE Scores

ICE scoring is a prioritization technique invented by renowned growth expert Sean Ellis, initially for the purpose of prioritizing growth experiments, but now also for product development.

With ICE we assign each idea three values:

- **Impact** – how much does this idea stand to improve the key metric we want to grow. I explain below what this key metric is.
- **Confidence** – how sure are we that we will have this impact? Another way to put this— how strong is the evidence in support of our impact assessment.
- **Ease** – how easy is it going to be to build and launch this idea in full. Usually this is the opposite of person/weeks.

Each value is in the range of 0-10 (some teams use 0-5).

We multiply (or average) Impact, Confidence and Ease to get the ICE score.

ICE Score = Impact x Confidence x Ease

The scores themselves are meaningless — they're just a way to compare ideas, but sorting ideas by ICE scores gives us an order of priority.

ICE scores give us a hint— knowing what we know now, these are the ideas that look most promising. ICE does not guarantee that these are the best ideas, or that they will even work. Nothing can do that short of a future-seeing crystal ball.

Why Do We Need ICE, Then?

Because of this reality:

- There are always more ideas than we can or implement or even test
- Only a small subset of these ideas will create positive outcomes
- We are bad at picking good ideas from the bad ones.
- We can waste a lot of time in prioritization exercises and debates, just to end up with decisions that are based on opinions, biases, or politics.

ICE changes the dynamics by focusing the discussion on the potential contribution to our goals (Impact), potential cost (Ease), and supporting evidence (Confidence). This shortens debates and makes them much more grounded. Less opinions, more evidence.

With ICE we're not guaranteed to make the best decision, but we're improving the odds.

Understanding Confidence

Impact and Ease are always guesses or estimates, which means they can be quite inaccurate. That's why we have Confidence as a third element. Confidence reflects how much trust these estimates—especially for Impact where there may be a huge margin of error.

Here's an example. Let's assume you're considering two ideas of a similar Ease: 1) launching a product community for your product, and 2) shortening the Upload flow. The community idea looks very promising. Communities are all the rage now, and we estimate the community will get users to come back and engage more. The Upload Flow looks to have a more moderate impact, but it has come up a number of times as a request from users, and initial tests indeed show a medium-sized improvement in your key metric.

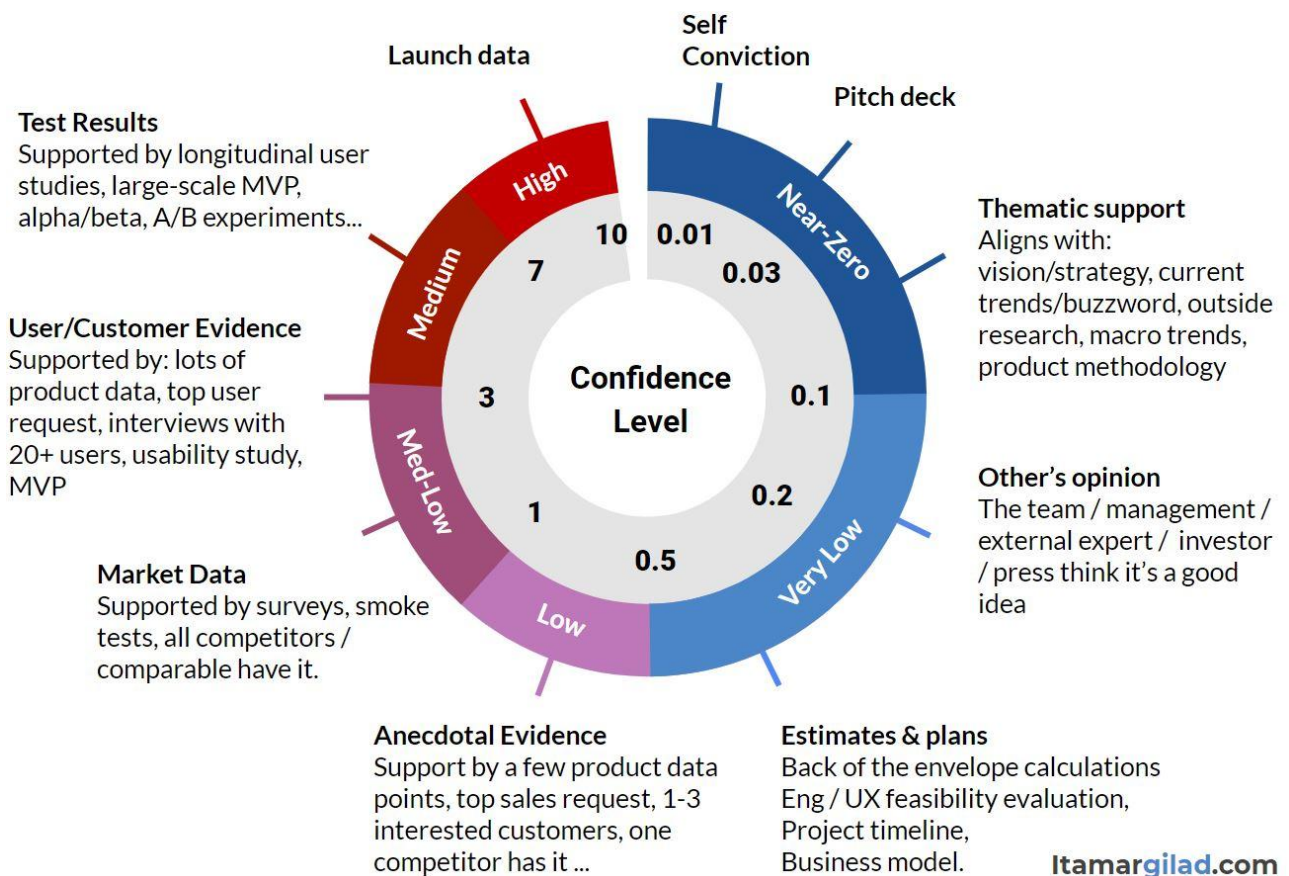
Idea	Impact [0-10]	Confidence [0-10]	Ease [0-10]	ICE Score [I x C x E]
Launch a community	9	0.6	5	27
Shorter upload flow	5	3.5	5	87.5

According to ICE, if you can pick only one idea, you should go for shortening the upload flow. That's mostly down to the fact that you have a lot more evidence in its favor. The very high impact that we assigned to the Community idea is based mostly on opinions and market trends/buzzwords. These are very unreliable forms of evidence, which means the real impact can be far lower—we just don't know enough to say. However, ICE doesn't say you should dump this idea, just that you should test it further before committing.

Aim to launch only ideas that achieve or exceed medium confidence.

Calculating Confidence

As explained, Confidence indicates our level of trust in the impact estimate. Confidence is derived from supporting evidence, however there may be many types of evidence and it's not always clear how them into a score. This is the purpose of the Confidence Meter shown below. To score an idea you simply need to go clockwise across the various types of evidence and ask: "do we have this type of evidence in support our impact estimate?"



To make things simpler, the Confidence Meter is available as a [spreadsheet-based calculator](#) (free download).

Not Just Easy or Safe Ideas

A common concern when using ICE is that it will pick only safe, easy ideas (a local optimum) and will push big, ambitious ideas to the bottom. In my experience this is rarely the case. Let's look at an example to see why:

Idea	Impact [0-10]	Confidence [0-10]	Ease [0-10]	ICE Score [I x C x E]
Launch a community	9	2.0	5	90
Shorter upload flow	5	3.5	5	87.5
Newsletter promo	1.5	2.0	9	27

We have the same Community idea from the previous example, but this time with a bit more evidence: the team ran a survey and interviewed 15 potential users of the community, and the results confirm the high impact of 9. Note that with this extra confidence boost the idea beats both a medium-impact/medium-effort idea (Shorter upload flow) and a low-impact/high-ease idea (Newsletter promo).

ICE helps us find the best combination of value, cost, and risk.

Other points to consider:

- The ICE priority order is just a recommendation. You should apply judgement. It's okay to occasionally boost a low/medium-ranking idea.
- Very big, high-risk ideas should go into a separate strategic track, with different resource allocations.
- If you'll process ideas efficiently, many more ideas will get a chance to be tested, even if they in the middle or the bottom of the pack.

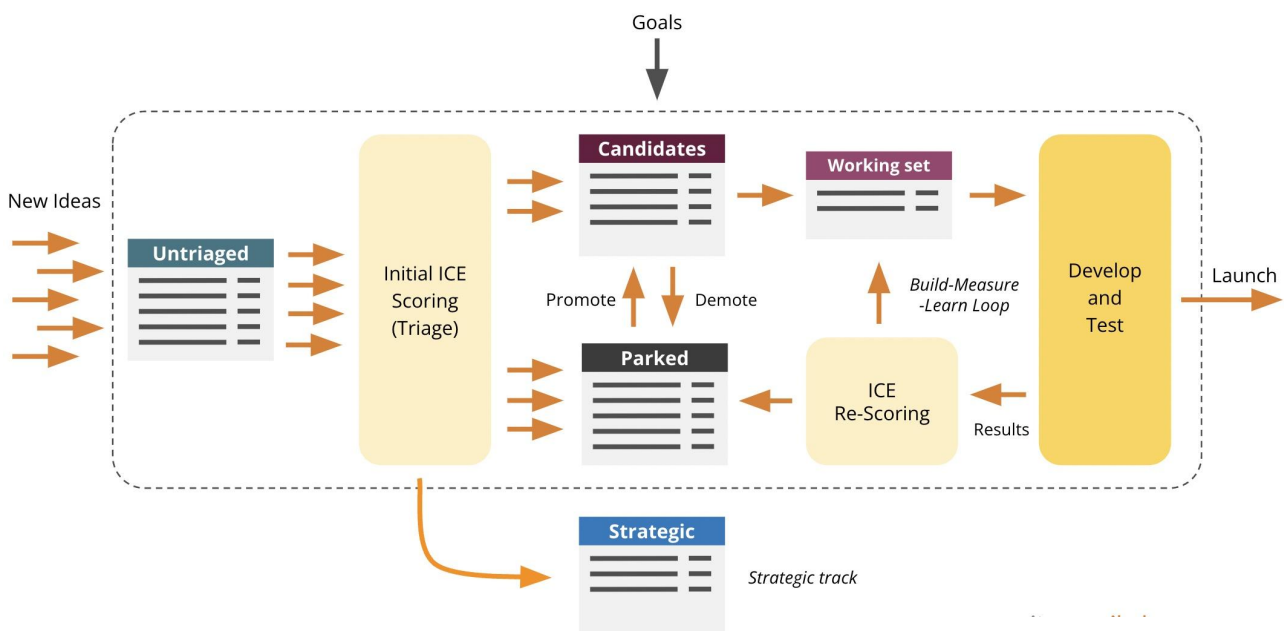
When to ICE-Score

I argue we should calculate ICE scores:

- When we're looking at a new idea (triage)
- When we're choosing ideas to work on (filtering)
- When we find new data/evidence pertaining to an idea (learning)
- Periodically, when we're reviewing our idea banks against the goals (maintenance/hygiene)

Think of ideas as you think of bugs. There are always many of them (and they keep coming), but only a subset are worth the investment. It's important to continuously evaluate ideas and place them in the right bucket. Like with bugs, lack of proper hygiene can lead to massive backlogs of stale ideas.

One way to manage idea states is to move them between idea banks.



These are common idea banks types:

- **Untriated** – new ideas that came from research, management, customers, the team, analytics, brainstorms, and anywhere else.
- **Candidates** – The most promising ideas we have at the moment, typically no more than 30-40. From time to time we should go over those and demote ones we feel are less relevant into the Parked idea bank.
- **Parked** – ideas that we feel don't make the cut. This idea bank can be as long as needed and hold ideas indefinitely. It's good to keep even what seem like bad ideas, in case they reemerge. Then we can quickly look at our previous assessment and test results. It's good practice to go over this idea bank every few months to remove duplicates, and see if there's anything we now feel deserves to be promoted to Candidates.
- **Working-set** – A small, temporary set of ideas we're working on in this goal cycle. A typical scenario is to pick 3-5 ideas per key result in our OKRs.
- **Strategic ideas** – ideas that take us outside our core business or are very large. We need to process these through our strategic track, which may have different goals and different resources.

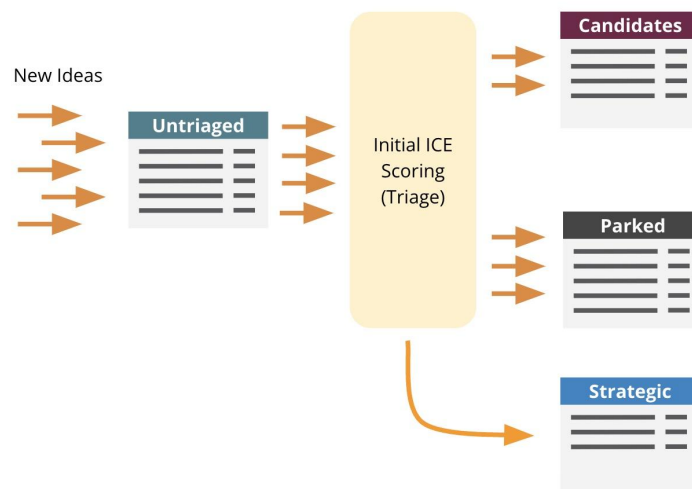
Choosing the Key Metric for Impact

In each idea bank we estimate impact against a particular metric. Our Candidates idea bank should be ranked against a consistent, long-standing metric, ideally the [North Star Metric](#) of the company or division. Teams working on monetization can use revenue, number of active customers, or other top business metric. A Working-Set may be ranked against a quarterly key result. Strategic ideas may be ranked against metrics coming from our strategic goals.

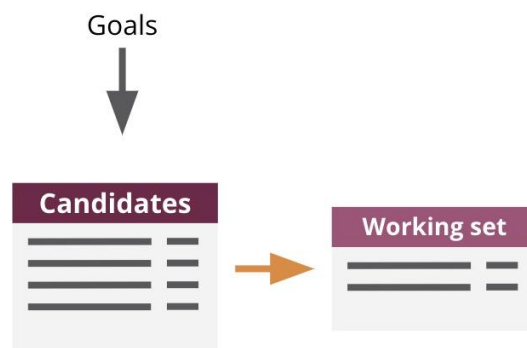
The Life Cycle of an Idea

Here's an optional way to process ideas with ICE:

Triage - New ideas can be kept in the “Untriated” idea bank, until we’re ready to triage* them. The decision should be to add the idea to the small list of candidates, to park it, or to move it to a strategic track.

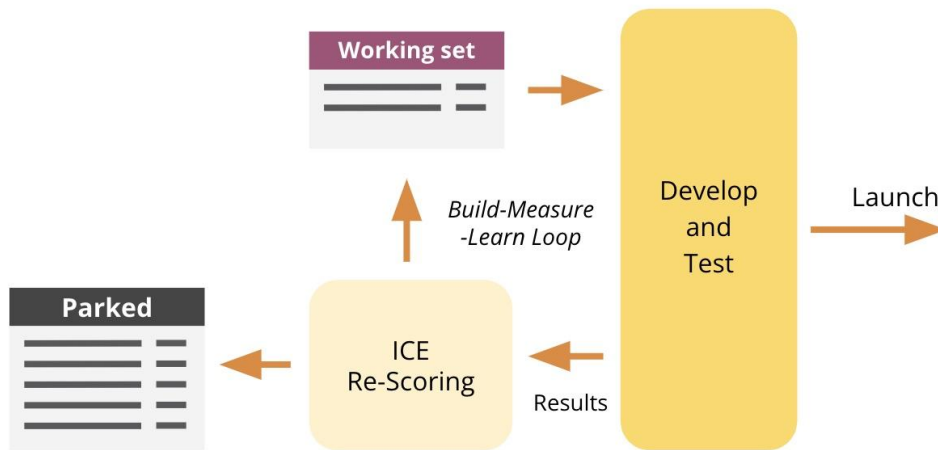


Choosing ideas to develop and test - as we define our goal for the next cycle, we can go over our list of candidates and pick 3-5 potential ideas to address each key result. If we don't have enough ideas, we may need generate more.

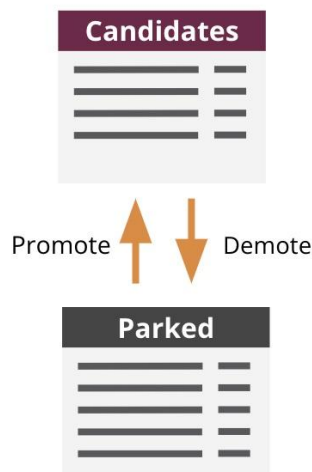


* triage is a medical term that means deciding on the order of treatment of patients.

Testing ideas - ICE works only if you test your ideas. The results of the test should allow us to re-score the idea and to decide whether to keep pursuing the idea (keep it in the working set) or drop it (move it to Parked). Through this process we implement a build-measure-learn loop. Ultimately Some ideas will be completed and be ready to launch.



Maintenance - Periodically we should go over the Candidates and Parked idea banks and decide if there are some ideas we wish to promote or demote.



Frequently Asked Questions

Doesn't All of This Take a Lot of Work and Time?

It definitely can, although I'd argue far less than [repeatedly developing the wrong ideas](#).

This is by far the biggest weakness of ICE—it requires persistence and repetition. Someone, usually the product manager, has to commit the effort. Teams who use ICE once per idea and never clean their idea banks will get very little benefits.

Here are some tips on how to reduce the workload:

- During triage of new ideas, use shallow assessment—guesstimates, quick back of the envelope calculations, easy data lookups etc. Try not to spend more than a few minutes on each idea.
- Go deeper on your candidates – analyze available data, consult with team leads, stakeholders and experts, do deeper business modeling. Then, with the most promising ideas, start testing.
- Don't do it with the entire team – Normally product managers are responsible for ICE scoring. They may score together with team leads, but not with the entire team as this will waste a lot of time for a lot of people. The scores should be very transparent and open to feedback and questions. The team should be involved in choosing which ideas to pursue further.
- Don't turn the Idea banks into suggestions boxes. Anyone is welcome to propose an idea, but best if they approach the PM for that. The PM on their part should strive to say Yes (i.e. we will consider this idea) to all

but the clearly out-of-scope or clearly unethical ideas.

- Put pure engineering ideas in a separate bank and let the engineering lead prioritize them.

Why Do We Need Idea Banks?

There are several good reasons.

- To store ideas for as long as needed without an artificial number limit. An idea that seems irrelevant now may be a big winner tomorrow.
- To allow us to defer judgment — when someone gives us an idea, we don't have to immediately reply with a Yes/No. We thank that person and put the idea in the Untriaged idea bank. Later that person can follow the idea through its journey.
- To show us the bigger picture — There's always more than one idea. As we get momentarily excited about idea X, the idea bank will help us see how it compares.
- Surface clusters of ideas – These sometimes indicate a theme or a hidden goal, or they may just show that our thinking is limited to one particular area (usually the most obvious things) and that we need to think broader.
- To help us find duplicate ideas, and to recall past evaluations and test results when an idea resurfaces. An idea bank is actually our knowledgebase of learning.
- To give us a realistic sense of how much we stand to improve our key metric. If all we have is weak ideas, we should go and do some research and brainstorming to uncover more.

Would My Managers and Stakeholders Accept ICE?

In my experience they would, because they too realize that debates and politics are not leading to good decisions. Some also are unhappy with “black box” product management that hides the decisions. ICE provides an objective, transparent way to evaluate ideas and communicate decisions. Once ICE becomes the common practice in a company, the stakeholders can become partners — finding evidence and helping interpret it..

How Strictly Do We Have to Follow The ICE Order?

Following the ICE order will generally create more consistency and fairness, shorten decision times, and improve the odds of success. However, you should apply judgement. You can choose not to pick the top idea, simply because it's too expensive. You can also occasionally “boost” a low-ranking idea, just because you believe in it, or because you can't say No because it's the pet idea of someone important. Importantly, saying “Yes” doesn't mean “we're going to build it”, but “we're going to test it”.

Should We Go All-In and Build the Top Scoring Ideas?

As a general rule you should only launch ideas that have reached at least medium Confidence. If this is true for the top-ranking ideas, you can consider going for a launch. If confidence is lower you should continue testing.

Why Do We Need to Score an Idea Multiple Times?

I suggest that every time you learn something new that changes your perspective on an idea, whether through reviews, data analysis, research or experiments, you should rescore it. This practice helps us implement the “Learn” part in Build-Measure-Learn, and it keeps the ICE priority order up-to-date.

Here's a [full example of how to implement build-measure-learn using ICE](#).

Should We ICE Everything? What About Must-Have Features?

Yes, I feel you should ICE every product idea you plan to launch independently (but not every individual product decision – that's impossible).

Here's why I think [there's almost no such thing as must-have features](#).

What's the Difference Between ICE and RICE?

RICE is a derivative of ICE invented by Intercom. It adds a fourth component: *Reach*—how many users/customers will be impacted. Many ICE practitioners, me included, argue that Reach is simply a component of Impact, and not necessarily a component you always want to factor. For example, an idea that only impacts a small, but very highly-engaged subset of users can be of high impact although it's low in reach.

Can We Really Trust a Spreadsheet to Make the Decisions? Aren't the Numbers Just Made Up?

These are some common arguments people raise against ICE. I understand the concerns and partly share them. However, I feel these are [strawman arguments](#) — they go against an overly-simplistic interpretation of ICE, which unfortunately some companies actually practice.

With this naive version, people use ICE to rank their ideas once and then go ahead and develop according to the order of priority. This means they rely too much on guesses and estimates, and too little on research, experiments, and judgement. This approach leads to deciding based on opinions, consensus, and biases—exactly what ICE is trying to prevent. The problem isn't ICE, though, it's a lack of a true learning mindset.

Is ICE Competing with Design Thinking?

Some people feel that the analytical approach of ICE goes against the principles of design and user research. They fear loss of user-focus and team judgement. This definitely shouldn't be the case. If you set customer-centric goals, ICE will lead you to customer-centric solutions. I've heard from numerous researchers and designers that ICE helped foster a learning mindset that was previously missing in their teams. ICE highlights to managers and stakeholders the importance of research and user evidence. On the flip side, not using ICE can send designers and researchers to work on the wrong things (for example top-down ideas) and can cause a lack of action on research findings.

ICE is not a replacement to research, testing, and judgement; it's designed to complement, and amplify them.

The Bottom Line

- Use ICE to bring consistency, transparency, and realism into your idea prioritization.
- Combine it with research and testing to greatly improve the odds of success.
- ICE is not a one-time process. You need to score ideas you first triage them, when you pick them for testing, when you find new evidence, and when you maintain your backlogs.
- Be prepared to spend time on an ongoing basis, but it will pay dividends and get easier with practice.
- When practiced correctly, ICE is widely appreciated by anyone in the company: managers, stakeholders, engineers, and designers.
- Don't worry about all the negative hype. Make up your own mind after you've tried it.

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About Itamar Gilad

Itamar is a coach, writer, and speaker specializing in product management and strategy. Prior to coaching he held senior product management and engineering roles at Google, Microsoft and a number of startups. Itamar publishes a popular product management newsletter where he shares articles, eBooks and templates.



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