

Lesson 5 - Step 5: Design meaningful measures

Transcript

Onto Step 5, our final step in how to find meaningful measures for hard to measure teams. The most common methods that teams use to find performance measures are brainstorming, copycatting, looking into data they already have, or waiting for someone to come along and tell them what they should measure.

These are all bad approaches. They're bad approaches because firstly they really don't encourage and nurture a high level of buy in or ownership for the measures. They also don't consist of any rationale for deciding which measures are going to be most useful out of all of the potential measures. And very often you end up with things that just aren't measures, people write down project milestones, or data sources, or surveys as measures, but those things aren't measures.

A measure is a quantity, a quantification of some kind of evidence.

It's funny that people keep on struggling with choosing measures because there is a technique that gives it logic, that makes it easy, that really encourages and nurtures buy in, and produces measures that are very meaningful, measures that teams often feel very excited about, and it's the second technique that we're borrowing from the PuMP® methodology. It's called Measure Design, and it's the tool you're going to use with your teams to design great measures for their new performance results in their Results Map.

Measures come from evidence

Doug Hubbard is the author of a book called How to Measure Anything. He explains this concept of how to measure anything with a clarification chain, or what he calls a clarification chain, and it goes like this, if it matters at all it is detectable or observable.



If it's detectable it can be detected as an amount or a range of possible amounts. If it can be detected as a range of possible amounts, it can be measured. So in a nutshell he's saying if it matters you should be able to see that it matters – you should be able to see it, you should be able to observe it in some way. If you can observe it in some way, then you should be able to put a quantity to it, to how much of it you're seeing. If you can put a quantity to it, you can measure it.

Measures come from evidence

- Evidence you can **see**
- Evidence you can **touch**
- Evidence you can **hear**
- Evidence you can detect or **observe** in some way

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The point here is that all good performance measures are evidence-based, they come from evidence, they come from things that you can see, or touch, or hear, or observe in some way. If you can't see it, touch it, hear it, observe it, or detect in some way, then it's not a real result, it's not something that you can measure. How do you observe efficiency? You've got to describe it, you've got to actually describe what you're seeing, or touching, or hearing, or observing to know that something is more efficient than it has been in the past. If you can't do that then you haven't done a good enough job at nailing down what the result really is that you're trying to achieve.

Where most people go wrong with measure selection is that they fail to start with that. They fail to start with defining the evidence of the result that they're trying to measure. Brainstorming ignores that, you know? It's just, "Oh, what could we measure?" and people just go with whatever comes to their mind, but you don't want to do that, you want to go with what is the best evidence of your result. So your team doesn't have to make that mistake anymore.

Step 5.1: Design measures for each result

The Measure Design technique, the PuMP® Measure Design technique has five steps to it, and I'm going to take you through each step systematically. These steps are arranged in a template, you're looking at an excerpt of that template right now on this slide for Step 5.1. That template is in your workbook, it's also illustrated and an example given in each of the case studies as well.

The discovery team, remember, is the team that finds new mineral deposits for their mining corporation. One of their performance results was, "That opportunities don't stall in the pipeline due to obstacles in the discovery process." So, what they're talking about when they talk about this pipeline is that opportunities go through different stages of testing and evaluation to find out whether they're worthy enough to go to the next

stage, the final stage is a handover to a product group, in other words it's discovery that's deemed as a profitable and viable commercial opportunity, and should become a commissioned mine. So, there's different stages or gates that an opportunity has to pass through, and what the discovery team does not want to have happen is to have an opportunity stuck at a particular gate and not making any forward progress because of an obstacle that really shouldn't be there. This particular performance result related to a disconnect in their discovery process, and of course you can look back at the case study to find out where.

Step 5.1: Design measures for each result

<i>begin with the end in mind</i>	Opportunities don't stall in the pipeline due to obstacles in the discovery process.
<i>be sensory specific</i>	<ul style="list-style-type: none">• Land access does not hold up the progress of an opportunity.• Equipment not being available does not hold up progress of opportunities.• Qualified engineering personnel not being available does not hold up progress of opportunities.• Opportunities are actively being researched or drilled or analysed or assessed – something active is always happening to move the opportunity forward in the pipeline

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Now, when you design measures they're only going to be great measures when you discipline yourself to focus on just one result at a time, don't list all of the results and then say, "How can we measure these?" Just pick one result at a time and use the Measure Design process for that result. Then you ask the question, "What would we see, hear, touch, detect, or observe in some way if this result was happening the way we wanted?" "What would we see if opportunities weren't stalling in the pipeline due to obstacles?" "What would we touch? What would we observe in some way if opportunities were not stalling in the pipeline?" Well, the answer to that question is at the next step here in the Measure Design process, be sensory-specific.

The discovery team said that, "Land access wouldn't hold up the progress of an opportunity." What they mean there is that getting land access, permission to go onto the land to do some testing drills to find out what's in the ground, sometimes people won't give them land access, if that land is privately owned or if it's national park, or if it's land that's owned by a community group or whatever, they may not want a mining company coming in and drilling. So land access can actually hold up the progress of an opportunity.

"Equipment not being available doesn't hold up progress of an opportunity." That's something else that would convince them that opportunities weren't stalling. "Qualified engineering personal not being available doesn't hold up progress of opportunities." Finally, "Opportunities are actively being either researched, or drilled, or analysed, or assessed, something active is always happening to move the opportunity forward in the pipeline," that's another thing that we would be able to see if we knew that they weren't stalling.

What you are writing down here at the ‘be sensory-specific’ step is evidence of the result, and evidence of course is the basis for finding potential measures, and I’ll show you how.

I’ve repeated here the ‘be sensory-specific’ step so you can still see those sensory-specific evidence statements, if you want to call them something. You can see them there, and what we’re going to look at how is how each of those gets translated into a potential measure.

The first one was, “Land access does not hold up the progress of an opportunity.” The question the discovery team would ask is, “Well, how could we quantify that?”

“What’s a potential measure for how much that happens?” The answer to that question might be, and as you see it down here, potential measure number one, “The percentage of opportunities held up by land access problems.” That’s not the only potential measure, but it’s an example of how that could be a potential measure.

Step 5.1: Design measures for each result

be sensory specific	<ul style="list-style-type: none"> Land access does not hold up the progress of an opportunity. Equipment not being available does not hold up progress of opportunities. Qualified engineering personnel not being available does not hold up progress of opportunities. Opportunities are actively being researched or drilled or analysed or assessed – something active is always happening to move the opportunity forward in the pipeline 			
	potential measures			
	1. Percentage of opportunities held up by land access problems.	strength	feasibility	✓
	2. Percentage of opportunities held up by equipment problems.	M	H	
	3. Percentage of opportunities held up by personnel problems.	M	H	
find potential measures	4. The average number of days that new opportunities are not actively worked on due to obstacles such as land access or equipment availability	H	M	✓

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Another potential measure for that particular piece of evidence could be the percentage of – not even the percentage; it could be, “The total number days that an opportunity is held up due to lack of land access.” So, you can see you can come up with different potential measures. Why it’s not here in the example is more about me keeping the example simple for you rather than putting down every potential measure that could be there.

The next one, “Equipment not being available does not hold up progress of opportunities,” well, a similar kind of potential measure comes out for that one... “Percentage of opportunities held up by equipment problems.” Likewise for personnel problems. Potential measure number three is, “The percentage of opportunities held up by personnel problems,” and that related to the third sensory statement back up there. The fourth sensory statement turned into this fourth potential measure, “The average number of days that new opportunities are not actively worked on due to obstacles such as land access or equipment availability.” So, they’re not being specific and pinpointing a particular obstacle here, they’re just looking at the average number of days that an opportunity is not being actively worked on.

Now for those potential measures, in this example we’ve got a one to one match here; one potential measure per piece of evidence in the sensory-specific list. That’s not a rule, that’s just happenstance in this case. You can have two, or three, or four potential measures for any one particular piece of evidence, it’s really up to you, it’s up to your

team and what you really want to write down as potential measures to consider. Now, just because you've written it down as a potential measure does not mean you're going to finally choose that measure, it doesn't guarantee that it's a measure that the team is going to use. You'll often end up with many more measures than you need, and some of them will be better than others, so we need to short-list them.

And, we short-list them in the PuMP® Measure Design technique by using two things: strength and feasibility. Strength is about how convincing that measure is of the result. So the original result was, "Opportunities don't stall in the pipeline due to obstacles in the delivery process." Now, you can see that result on the previous slide back up here at the 'begin with the end in mind' part of the Measure Design framework. You ask the question, "How convincing would this measure percentage of opportunities held up by land access problems be, of that result happening?" Well, the team says, "Medium," because you couldn't just rely on that measure on its own. Yes, it does give us some information, but its strength is really only medium. Its feasibility is high, it's very, very easy to measure it, and that's what feasibility means, "How easy is it to measure this?"

So strength and feasibility ratings were given for each of the potential measures and then it makes it so much easier to pick the best one, and number four was the one that was chosen... it's got the little tick there. It had high strength, its feasibility was medium, but that's OK, it's probably a measure worth putting the extra effort into finding a way to collect the data for it.

Now the next step of the Measure Design technique is a checking step, it's called 'check the bigger picture' and it's about just making sure, "If we do choose that measure could there be any unintended consequences of measuring it?"

Now the team wrote down here, the number of days an opportunity is not worked on might be in the hundreds, and that's really an acknowledgement that it's a slow moving process, that remember it can take 10, 15, 20 years for opportunities to go through this process.

Step 5.1: Design measures for each result

check the bigger picture	<ul style="list-style-type: none">The number of days that an opportunity is not worked on might be in the hundreds.
name the measure(s)	Opportunity Stall Time = The average number of days that new opportunities are not actively worked on due to obstacles such as land access or equipment availability

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So, it may stall for many, many days, and we just need to bear that in mind. It doesn't really impact the choice of the measure though. So, they still stuck with measure number four and took that to the 5th stage in the Measure Design process, which is name the measures.

It's really the full stop at the end of the process. It says, "This is the measure that we've chosen."

You go a little bit further than that, you just tweak the way the measures expressed and you give it a name. So, they have called this one, “Opportunity stall time,” and it is the average number of days that new opportunities are not actively worked on due to obstacles such as land access or equipment availability.

Notice how specifically that measure is written, it’s given a nice short name, but look at the sentence that follows that name, it’s telling us really what we’re measuring. We’re measuring an average. The thing that we’re averaging is days, and those days are account of how long a new opportunity isn’t actively being worked on for a specific set of reasons. You need that level of detail when you write a measure. Just putting down ‘opportunity stall time’ is not enough, because it’s not clear what that means, it’s not clear how you’re measuring it.

And, that’s it. That is the Measure Design process.

Step 5.2: Prepare measures for implementation

Performance Results	Performance Measures
Opportunities don't stall in the pipeline due to obstacles in the discovery process.	<ul style="list-style-type: none"> Opportunity Stall Time = The average number of days that new opportunities are not actively worked on due to obstacles such as land access or equipment availability

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Step 5.2: Prepare measures for implementation

Now when you’ve done the designs for each of the performance results in your Results Map with your team you want to summarize those. So, the summary that we’re going to do, we’re in Step 5.2 now, is to write down the result in one column and then write down the measures chosen for that result in the next column. So, so far we’ve got this, “Opportunities don’t stall in the pipeline due to obstacles in the discovery process,” and the measure we chose is, “Opportunities stall time, the average number of days that new opportunities are not actively worked on due to obstacles such as land access or

Step 5.2: Prepare measures for implementation

Performance Results	Performance Measures
New discoveries contribute disproportionately to global production of their target resource.	<ul style="list-style-type: none"> New Discovery Contribution = The ratio of the percentage of deposits represented by new discoveries to the percentage of global production produced by new discoveries, by commodity
Opportunities in the pipeline represent large deposits of targeted minerals.	<ul style="list-style-type: none"> Opportunity Pipeline Deposit Size = The average estimated deposit size of all opportunities currently in the opportunity pipeline
Opportunities in the pipeline represent high quality deposits of targeted minerals.	<ul style="list-style-type: none"> Opportunity Pipeline Deposit Quality = The percentage of all opportunities currently in the opportunity pipeline that match all criteria for Tier 1 discovery
Opportunities move quickly through the pipeline from initial testing to handover.	<ul style="list-style-type: none"> Opportunity Pipeline Speed = The average number of months it takes for opportunities to move from initial testing (Stage 2 assessment) to handover to a product group

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equipment availability.” That measure is going to help us understand how well we’re achieving that result, and the idea is that we’ll measure that, we’ll monitor it, and we’ll find out ways to reduce that number of average days.

This is what the final step is in the process of finding meaningful measures for hard to measure teams, it’s about consolidating all of the measures that your team chooses into a final list, ready to go ahead and implement, and that looks something like this. The performance results in one column and the measures chosen in the next column.

Let’s click through, actually, and look at that final set of measures for the discovery team. You can see they’re all listed there. In one case they’ve got a result that has two measures, and that’s OK as well. If you really think that to fully understand a particular performance result you need more than one measure, maybe two, maybe sometimes three, but really try not to go beyond three, that is OK. It’s a conscious decision and you know why you’ve made it, you haven’t just ended up with two or three measures because that’s how many you brainstormed, you’ve ended up with two or three measures because that’s how many you have decided you need to get a complete picture of that result.

So, this particular result is, “Elusive targets are easier to find,” and their two measures are, one, “Elusive targets found,” which is the number of elusive targets identified through the stage two assessment, which is just a reference back to a stage in their opportunity pipeline. And the second measure is, “Elusive targets success rate,” and that’s the percentage of non-defect elusive target opportunities that are successful at each milestone in the pipeline. A target here, an elusive target, that just means a type of deposit, a type of mineral or resource that’s traditionally hard to find.

When you’ve got that list your team is now looking at the finished product of this process, but I appreciate that’s not the end of the road, there’s going to be some implementation needed and we will certainly talk about that when we get together to look at questions and to do a bit of a revision.

More examples...

There are more examples, of course, that you can look at to see the measures that various teams that we’ve been working through have come up with.

The billing team, for example, let’s go look at their finished list of measures, they have quite a few. Here on Page 1 they’ve got four results. The first result has three measures, that result is,



“Bills are paid on time and in full,” they had three measures they liked for that one: “On time payment,” the percentage of invoices that are paid on time and in full. “Lateness of overdue accounts,” which is the average number of days that overdue accounts are overdue by. And, “Bad debts as a percentage of revenue,” the total amount of revenue for invoices classified as bad debts, as a percentage of the total amount of revenue received.

They’ve got one for, “Customers satisfied with bill accuracy.” That’s a customer satisfaction with invoice accuracy, that actually came from the survey that produced the customer priority quadrants. So the data that’s in that survey is already giving you some data for potential measures that you might base on customer satisfaction.

Over the page they’ve got more measures. So, how many did they end up with? One, two, three, four, five, six, seven, eight – nine. That’s a lot of measures for a team, quite frankly. This team was hard to measure only because they didn’t know where to focus, but they were very comfortable with the idea of measurement and continuous improvement. They took these nine measures, they’re OK with them. But, if your team is still kind of, “Oh, I’m not really confident with this whole continuous improvement concept,” I would suggest going back and saying, “Well, alright, out of these measures that we’ve ended up with, what’s the first one that we really want to start with?” And that’s OK. Just pick one measure, implement it and use it, and get some improvement happening, and then go back and get the next one and make that happen.

Again, you’ve got some other case studies that you can look at to see what measures they have ended up with. But, you’re really now at the end of the work of the process to find meaningful measures for hard to measure teams.

End of transcript.