PROJECT RAINBO - CASE STUDY
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It was 8:30 am on a Monday morning. Yvette was enjoying a cup of tea at her desk and collecting her thoughts before her team's weekly staff meeting. She smiled to herself as she recalled how well last week's program review went. One executive even commented, "I wish every team worked as smoothly as this one."

She enjoys being the program manager for Project RAINBO (Reliable AI Network for Better Outcomes). Her team is tackling a big challenge in digital healthcare data management. Specifically, RAINBO is charged to increase accuracy and availability of large amounts of healthcare data, identifying trends and quantifying the efficacy of treatments much faster than traditional methods. The team is pursuing some emerging AI technology, which holds the potential to be a truly revolutionary approach to improving healthcare outcomes.

While the technology is interesting, and she cares deeply about the mission, what Yvette likes best is the people. She is proud of how well the team works together and supports each other. People are friendly and interested in each other, and the project is famous for having outstanding off-site events. Sure, a few tough questions didn't get answered during the latest review, and there are some big decisions that still need to be made, but Yvette is confident they can do what needs to be done because the team is so close and supportive of each other.

She's about to discover that things are not as smooth as she thinks.

Thirty minutes later, everyone is gathered in the conference room for the staff meeting. In keeping with the team's practice of "connection before content," they spend a few minutes in casual conversation, asking about each other's weekend activities, before getting down to business.

Yvette opened the meeting by reflecting on how positive the program review was, focusing specifically on the team's collaborative way of working together. "We had a really strong performance because we all supported each other and listened to all voices. In keeping with that, I'd love for you all to share your thoughts with the group!"

Roman, the contracting officer, spoke up first.

"I agree last week went smoothly, even though we didn't exactly stick to the agenda, but it was also incomplete. We never did make a decision on my proposal about assigning roles and responsibilities. Like I explained, we need to assign roles because we're spending too much time

having conversations where *everyone* weighs in on *everything*, then we end up with a consensus that is not actually correct. Experts should be making these decisions, no offense."

"On that note," he continued, "I also need your approval on my proposed acquisition and contracting strategy. I already laid out all the required steps and carefully addressed all the policy compliance requirements. We need to get this signed off and locked in, so there will be no ambiguity, no surprises, and everyone will know what to do."

"I still have a few questions about Roman's proposal," chimed in Greg, the project's chief engineer. "And a couple ideas of new things we could try. We need to make sure there's still some flexibility in the plan and we're able to take advantage of new ideas. The technology we're talking about is still really new. I want to experiment with a series of prototypes and run a pilot with a few clinicians."

Roman cut him off. "Look, this isn't a science fair project, and we can't just play around with…"

"Hey now," interjected Greg, "Playing around is exactly what we *should* do, and it kind of is a science fair project. We're talking about brand new digital technologies. We literally don't know how this AI system works or what it can do. 'Playing around' is not frivolous, it's about exploring and learning."

Roman sighed and sat back in his chair, rubbing his eyes.

"I'm not against learning, Greg. We just need to do it the right way. That means following the procedures and having an approved plan, with milestones and predictable structure…"

"Sure Roman, I'll just put my next discovery on the calendar. How about I have a scientific breakthrough every other Thursday. Would that work for you? Or would you prefer Wednesdays?"

"Or we could just use technology that already works, instead of playing around with stuff that we don't understand and might not do what we need it to do. This is a program office, Greg, not a mad scientist's lab. We have Tech Readiness Levels for a reason. Anything below a TRL 7 is just too risky to even consider. If we don't know how the technology works, we literally can't rely on it, and that means we're doing it wrong."

"TRL 7? Seriously?" Greg barely managed to stay seated. "Do you have any idea how fast digital technology is maturing? If we limit ourselves to today's TRL 7, by the time we get it on contract and delivered, the system will be obsolete, particularly given how slow your contracting approach would be. Given the pace of change in today's digital environment, we should be

looking at TRL 4 if we have any hope of avoiding irrelevance, and using innovative contracting methods that help us go faster."

"We can't just be a loose cannon and do whatever you want…"

"We can't just be a bunch of bureaucrats and never try anything new…"

"Guys, let's keep it respectful," said Yvette, wondering where this antagonism is coming from. She didn't see anyone talking like this last week.

"You're right, sorry," said Greg. "It's just that this AI system is covering new ground, and it's important that we have creative space to explore the tech. And yes, even play around with it. That's why I proposed a modular contracting strategy based on rapid prototyping. The DoD is showing some excellent results with their Middle Tier of Acquisition pathway, and we should do something similar."

"Oh here we go again," sighed Roman. "Greg, you're a smart engineer. I'm sure you'll come up with a ton of exciting new ideas if you play around long enough. But acquisition and contracting is my area, not yours. And have you heard about some of the problems the DoD is running into with those MTA projects? How about this - I won't tell you how to write code or whatever, and you don't tell me how to do a contract."

"Um, weren't you telling me how to run my prototypes a minute ago?," Greg responded. "And yeah, I should have a say on our Acq Strat! FAR 39.103 says agencies are supposed to use modular contracting to the maximum extent practicable when acquiring major systems of information technology. That's what I'm…"

"Yvette, this is why I proposed those roles and responsibilities," Roman said, cutting off Greg and turning his attention to the Program Manager. "It will be chaos if everyone is in everyone else's business. Do you really want engineers quoting the FAR? And let me point out that when the FAR uses the phrase 'to the maximum extent practicable,' that is not exactly a clear, unambiguous mandate. I strongly disagree with Greg's suggestion that modular contracting is the right move here. It would make things less efficient and would be much riskier. The FAR gives specific guidance on how to do traditional, monolithic contracts, so that is much safer from a compliance perspective. Plus, how do we ensure full and open competition if we also require interoperability between modules from different vendors, which is definitely a requirement for an IT network like RAINBO? I promise we'd end up with a protest. This is why I recommend we don't do a modular contract, and why we should leave questions like that to the experts."

"Yvette, I admit I'm not a FAR expert," Greg responded. "And no, this isn't an easy or risk-free approach. But if we're looking for easy and risk-free, we're in the wrong business. There are so many things we haven't tried yet, so many new possibilities to explore. For example, the Periodic Table of Acquisition Innovation has some really interesting stuff in the Alternative Authorities section that we haven't tried yet, and they directly relate to how we do the tech."

"Here you go again," Roman answered. "But sure, since you mentioned the PTAI, I am interested in the Acquisition Automations section. My proposal aims to use stuff from that section to automate a lot of our work, which will be much more efficient."

The conversion continued for some time, with other members of the program office weighing in on their diverging preferences. After an hour, Yvette called for a pause.

"I think maybe we need to take a break," Yvette proposed. "Last week was a big event and there's a lot to process, so let's all get a breather."

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Back at her desk, Yvette hopped onto a video call with her mentor Nell. She shared the results of the recent program review and the subsequent staff meeting and the disagreements surfacing between team members. After listening carefully, Nell asked, "Before we get into the technical contracting issue, I have a question that's a bit more foundational. What are you seeing emerge that is most important for Roman?"

Yvette shook her head and said, "Roles and responsibilities and plans and processes and efficiency." She continued, "Which is all well and good but I am worried that much structure will hamper our team's collaborative vibe."

Nell smiled and said, "I understand your concern, though my question was only about what is most important for Roman, not how you feel about it." Yvette noded and chuckled slightly at the familiar advice. It was not the first time Nell gently pointed out that Yvette was inserting her own point of view instead of staying focused on the issue at hand.

Nell then asked, "What is most important for Greg?"

Yvette replied, "Creating new things and having fun with them! Well, experimenting with them rapidly and prototyping them, which is fun for Greg." She stopped herself before saying what else she was thinking, which is, "Sometimes Greg is so quick to move on to the next experiment he doesn't stop to learn from the first or share what he has learned with the team."

"And what about you? What would you say is most important for Yvette?"

Yvette sighed, "You know me, Nell. I want everyone to be supported and included. I'm a mentor, I care about each person's professional growth and I'm in this for the long haul. I want Greg to be Greg, and Roman to be Roman, and all of us to be friends."

Nell reflected for a moment on what she heard from Yvette, then said, "I have a tool that might help understand these different views of what is most important. Would you like me to share it with you?"

"Yes, please!" Yvette exclaimed.

"It's called the Competing Values Framework (CVF). It was first published back in 1983, as a result of some research into organizational culture, specifically around the question of what makes organizations effective. It's been updated a bit since then, as you might imagine.

"The model is based on the finding that most organizations can be described using two dimensions, represented by a horizontal and vertical axis each running between opposite or "competing" values. This creates four quadrants, each of which was assigned a color for reference. Here, take a look."

Nell shared her screen to show the diagram below and began to explain the image.
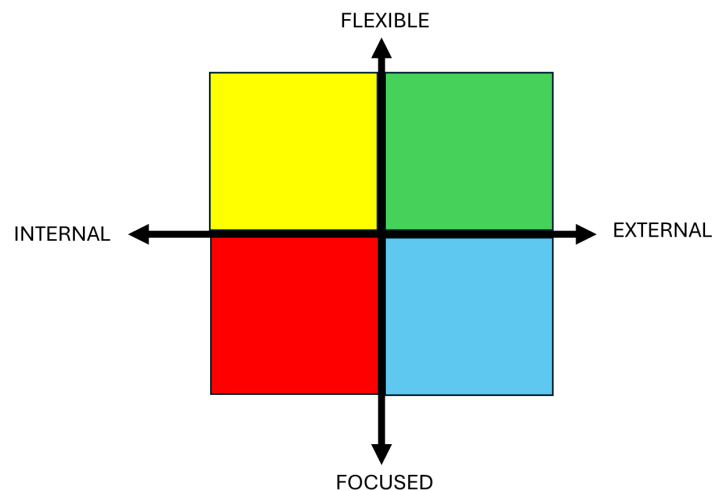
"The x-axis is about an organization's orientation, whether they prioritize looking internally or externally. The y-axis is about whether they prioritize being flexible or being focused."

In an aside, Nell added, "I love that the opposite of flexible isn't inflexible, it's *focused*. And the opposite of focused isn't unfocused, it's *flexible*. That is such a positive way of looking at the differences."

She continued, "The easiest way to understand it is to look at what happens in each sector. Let's start at the top right, with the green quadrant. Organizations or people in this quadrant value being flexible and externally-oriented. The result is they put a lot of energy into exploring new ideas, being creative, and challenging limits. Green values doing things *first*, and they love surprises. In a word, the verb associated with this quadrant is *create*."
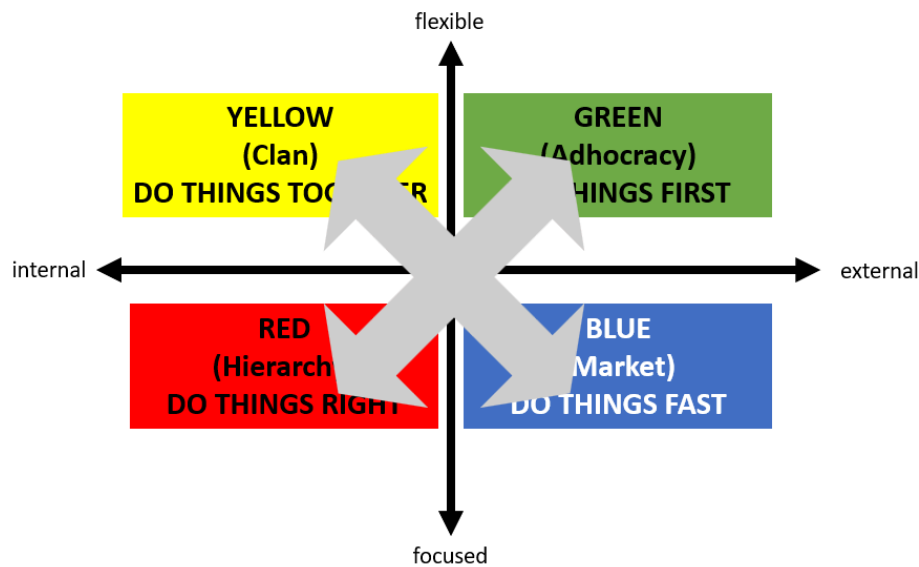
Nell continued, "The upper left quadrant, Yellow, is internally oriented, but still with an emphasis on being flexible. Organizations or people in this quadrant prioritize getting things done *together*, with an emphasis on stuff like shared values and culture. In contrast with the Greens, they talk about teamwork more than technology.The verb associated with Yellow is *collaborate*.

"Moving down, the lower left quadrant is colored Red. This one is internally oriented like Yellow, but now with an emphasis on being *focused* instead of flexible. For organizations or people in this quadrant, doing things *right* is more important than doing things *first* or *together*. There's an emphasis on nailing down our procedures and processes, examining systems to make them more efficient, getting things under engineering control so they're repeatable, predictable, and stable. Reds tend to talk about policy more than people, and efficiency more than experiments. The verb associated with Red is *control*."

"Finally," Nell said, "We arrive at the lower right quadrant, Blue. Here organizations or people are focused like Red, but looking externally, like Green. The predominant value here is about doing things *fast*. In the Blue quadrant, what matters most is competing and winning. They'll do a lot of stuff like identifying and understanding the market, pursuing the metrics of competition, aiming to thrill their customers and crush the competition. If Reds have their eyes on the rulebook, Blues have their eyes on the scoreboard. The main verb here is *compete*."

"We all have our own tendencies and preferences along these two axes, right? Keep in mind that each one is a spectrum, not a binary choice. We can care about being flexible *and* being focused, but we generally have to prioritize one over the other. That means most people will identify with one or two quadrants more than the others. And that is where the "competing" part of the framework comes in."

She flashed up another picture on the screen.

A four-quadrant diagram with axes labeled "flexible" (top), "focused" (bottom), "internal" (left), and "external" (right). The quadrants are: YELLOW (Clan) DO THINGS TOGETHER (top-left), GREEN (Adhocracy) DO THINGS FIRST (top-right), RED (Hierarchy) DO THINGS RIGHT (bottom-left), BLUE (Market) DO THINGS FAST (bottom-right).

"We often see antagonism and friction across the diagonals (although it can also exist across verticals). Greens value flexibility and external-orientation, so they are all about creativity and exploration. Greens are constantly asking 'What have we not tried yet?' They love trying out innovative new ideas and technologies.

"Meanwhile, the Reds value being focused and internally-oriented, so they're all about predictability and efficiency. They prioritize following the rules and sticking to well-established procedures. They ask questions like 'How can we get things under control?' You can imagine what those two groups tend to think of each other.

"Similarly, Yellows prioritize harmony and inclusion, and are always asking questions like 'How can we support each other?' They are less likely to ask questions Blues care most about, like 'How can we outperform the competition?' I guess it's possible to ask both questions at the same time, but there's only room for one 'most important thing' at a time, so we're bound to prioritize one over the other."

Yvette smiled with chagrin, thinking of the earlier staff meeting. "Yeah, I see how conflict over priorities limits a team's effectiveness and hampers productivity."

Nell smiled back and said, "Yep!" She continued, "The good news is, there doesn't have to be so much friction. Once teams understand the different values, and what each one brings to the table, they can take strides towards leveraging the different strengths from each quadrant and appreciating what each one contributes."

Then Nell pulled up one final diagram. "These are questions that can help us understand both our own values and also those of others. Take a look at this Yvette. Which color do you think you are? Hint - it's probably aligned with the question you find most appealing."
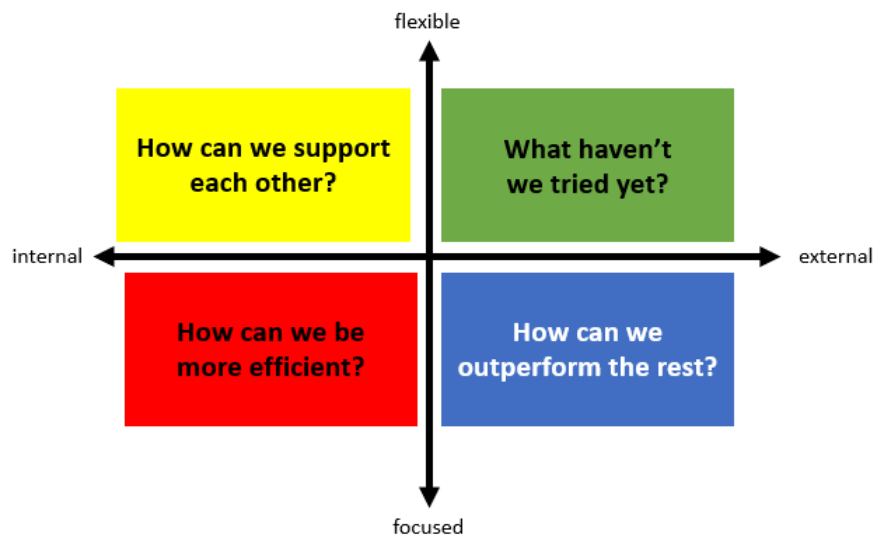
"I am sure I am yellow." said Yvette. "Bright yellow! I really focus on collaboration and ensuring everyone is supported. The other questions are important to me too, but not as much as the yellow question. I see now that not everyone on the team shares that value, as much as it hurts to admit that."

"Yes," replied Nell. "All the values have their place, and depending on the situation, some values will be more effective than others. In fact, we likely will need to shift from one dominant color to another several times over the life of a project… or the life of an organization. Failure to make these transitions is one of the big reasons organizations fail."

"Wow," said Yvette. "This is a little scary but also super helpful!"

Yvette paused and thought before saying, "So if I've prioritized Yellow as we built the team, maybe another color - or value - should be in the driver's seat for the project for a bit? Like, once we've considered some options, maybe we should shift from being flexible and considering options to making firm decisions and being focused? Or once we've done the internal work of building the team, we might shift to being externally oriented and prioritize users or market research?"

"Maybe," said Nell. "I was hoping you'd ask questions like those, and I think the CVF will help you explore some answers."

"Thank you Nell!" Yvettte exclaimed. "As always, you've given me a lot to think about."

Yvette and Nell said goodbye and Yvette sat at her desk for another 15 minutes, thinking about what to do next.

Later that afternoon, Yvette, Roman, and Greg all received an email from their user rep.

> *As we discussed at last week's review, we urgently require the new AI-powered healthcare data management system. Swift delivery is crucial for us to perform our jobs effectively and maintain a competitive edge in the fight for people's health.*
>
> *Please prioritize this project and provide an updated / accelerated timeline for system deployment. I don't care if you use old acquisition strategies or new ones. I don't care if you bend the rules or even break them a little. I care about getting the job done. Our ability to win hinges on the timely implementation of this technology.*
>
> *I'm available to discuss any ways we can expedite the process.*
>
> *Barb*

"Hi Barb," Yvette muttered to herself as she read the terse email. "I'm fine, thanks for asking."

Then, remembering her earlier conversation with Nell, she re-read Barb's email and thought, "Hmm. 'Competitive… fight… accelerated… win…' "

"I think I know what color quadrant Barb falls in!" she thought. "Now, what do I do about it?"

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Questions for students to consider:

1. What would you do next if you were Yvette?
2. Which color do you personally identify with? (Unsure? Try this CVF assessment)
3. Which colors do the various characters represent (Roman, Greg, Yvette, Barb)?
4. Do you agree that Project RAINBO has primarily focused on Yellow values so far? What makes you think so?
5. Should the project team prioritize a different value in the next phase of the effort? If so, which one, and why? What acquisition and contracting strategies would that point to?
6. Should the type of technology being acquired influence the team's primary values?
7. How would you go about proposing and leading a transition from one color to another?
8. How can the team represent a perspective that is not directly represented by any of the core members (i.e. Barb the user rep)?
9. How can the program office build a blended values set that includes a balance of all four colors?

GUIDE FOR INSTRUCTORS

We recommend reviewing some online resources about the Competing Values Framework, such as [this introductory whitepaper](#) by Dr Kim Cameron or [this overview](#).

Each character in the case represents a different color / quadrant from the CVF.
- Yvette, the program manager, represents the Yellow value. Her main goal is to do the work together, and she prioritizes collaboration. The question she is most interested in exploring is "how can we support each other." She talks a lot about teamwork and community. Notice how the friction surprises her - is it possible it's been there all along, and she just didn't see it?
- Roman, the contracting officer, represents the Red value. His main goal is to do the work right, and he prioritizes being careful and complying with policy. Roman wants everything to be predictable, scalable, and reliable. The question he is most interested in exploring is "How can we be more efficient?" He talks a lot about process and consistency. Notice how he prioritizes correctness and procedure.
- Greg, the chief engineer, represents the Green value. His main goal is to do new things, and he prioritizes originality. The question he is most interested in is "What have we not tried yet?" He talks a lot about technology and ideas. Notice how he moves to the next topic before addressing the previous one.
- Barb, the user rep, represents the Blue value. Her main goal is to do the work fast, and she prioritizes competition. The question she is most interested in exploring is "How can we outperform the rest?" She talks a lot about performance. Notice how she is explicitly open to bending the rules to get the results she wants.

These four perspectives represent "competing values," and so the initial challenge is to navigate the tension between them. Invite the students to consider which color they most identify with, as well as the relative benefits and risks associated with each set of values. For example, if the Yellow values are in the driver's seat, the team will feel well supported but might be slow to make decisions or might arrive at a consensus that is not entirely correct. If the Red values are in the driver's seat, the team will comply with regulations and do things right, but might miss opportunities to introduce new ideas and innovations.

Invite students to discuss how they might create space in the project for each value to be included. The CVF shows that the greatest friction tends to occur between diagonal colors (which represent opposite positions on both axes). So Roman and Greg (as Red and Green) will have the most friction, as will Yvette and Barb (as Yellow and Blue). Discuss how to manage these friction points.

One of the primary findings from the CVF is that the most effective organizations are the ones who successfully transition from having one color in the driver's seat to another. In this case, the predominant color is Yellow at the start of the effort, as shown by Yvette's observations about how well everyone gets along (and the lack of attention to certain questions about process and technology). Encourage students to point out where the different values show up.

Invite students to discuss both which color/value should take the lead next, as well as how to make that shift. What types of conversations, meetings, and/or decisions would be most effective to lead the team through this sort of transition? What would they do next if they were Yvette? For example, might Yvette introduce the CVF to her team? Or ask Nell her mentor to come give a presentation?

Finally, invite the class to discuss how various acquisition and contracting strategies align with each quadrant. What risks and benefits do they see, and which path do they recommend?

- With Green in the driver's seat, the team is likely to adopt creative interpretations of the FAR and try out new authorities and flexibilities - such as the "Alternative Authorities" from the PTAI, even if the selected approach is new, risky, or unpredictable.

- With Red in the driver's seat, they are more likely to follow previously established precedents and traditional methods, where outcomes are predictable and deemed to be safe, even if they take longer or are less innovative.

- With Blue in the driver's seat, the team will prefer using whatever acquisition and contracting method gets them to the next milestone fastest - with relatively little concern over whether the approach is new… or whether the implementation is strictly correct.

- Finally, with Yellow in the driver's seat, the team will likely seek a compromise approach, which may result in a sub-optimal strategy that sacrifices a certain amount of innovation or speed or predictability in order to secure buy-in from all parties. Reaching this consensus is likely to take more time, relative to the other three options.