

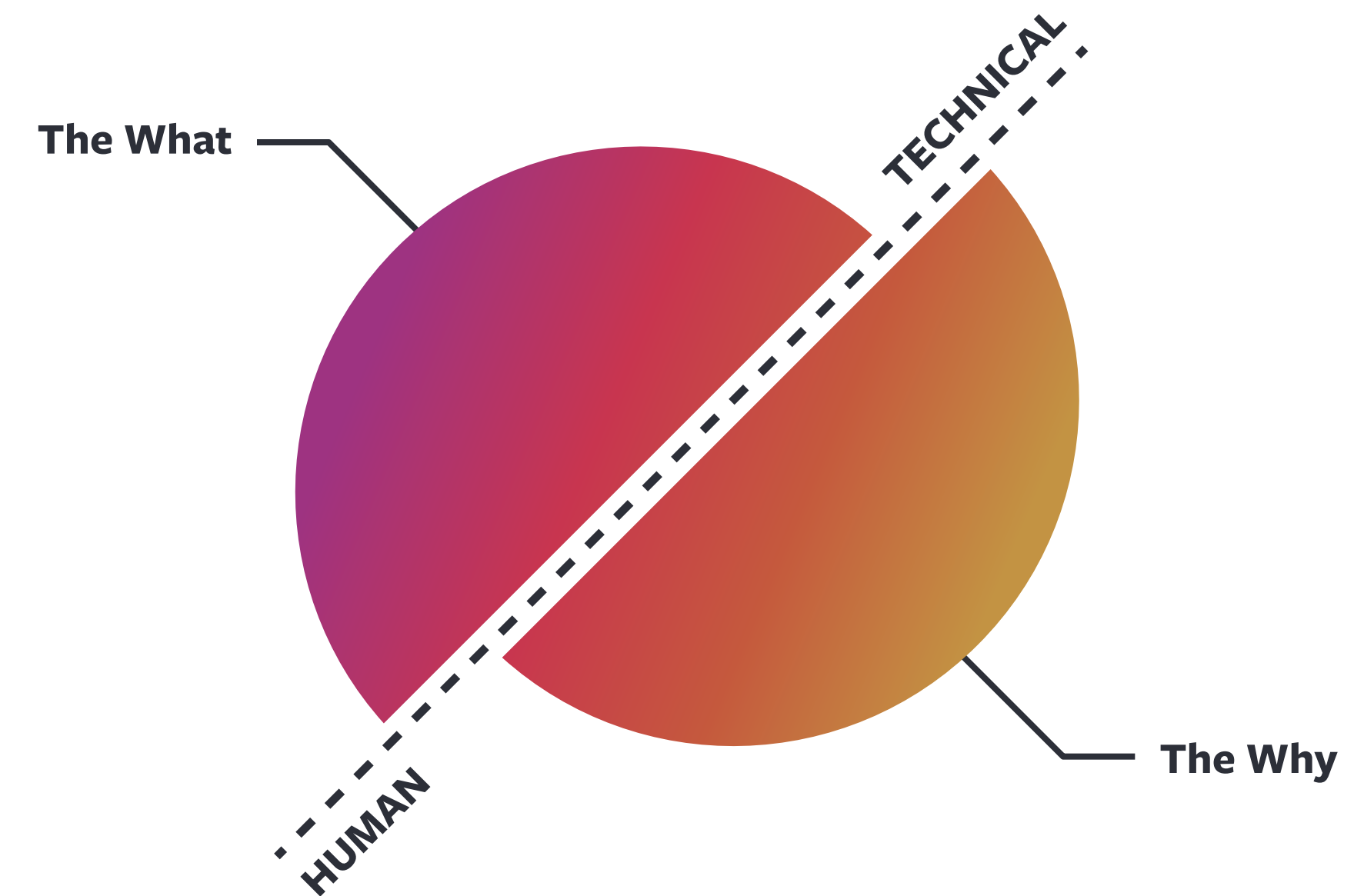
Systems Design

Systems thinking, Gavi, and how we use design to navigate wicked problems and create new paths forward.

Systems Design



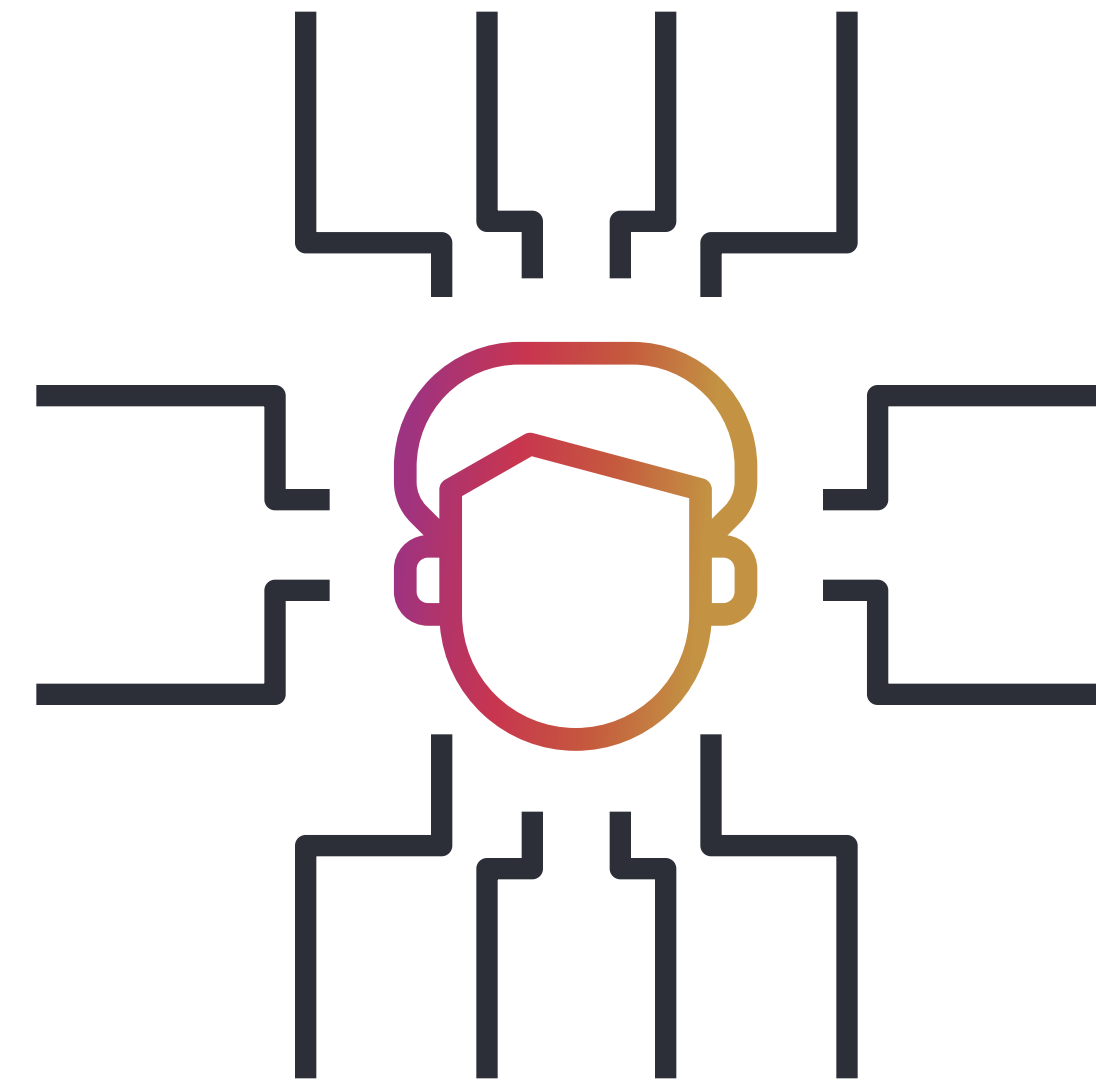
Systems Design is the practice of evaluating the **technical nature of complex problems alongside their underlying **human** factors.**



Everyone is a Systems Designer

Complex systems consist of many agents with their own goals acting and reacting to each other's behavior. Out of this often chaotic set of interactions emerges global patterns of organization in a dynamic and non-linear way.

As actors in a complex system, your decisions are both impacted and informed by the system. We are all part of it. We are all Systems Designers.

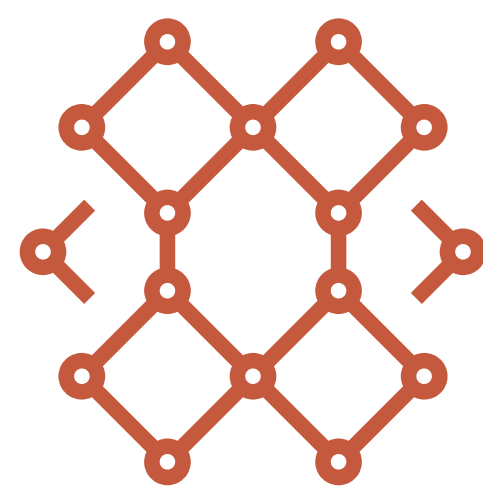


Systems Thinking + Design Doing

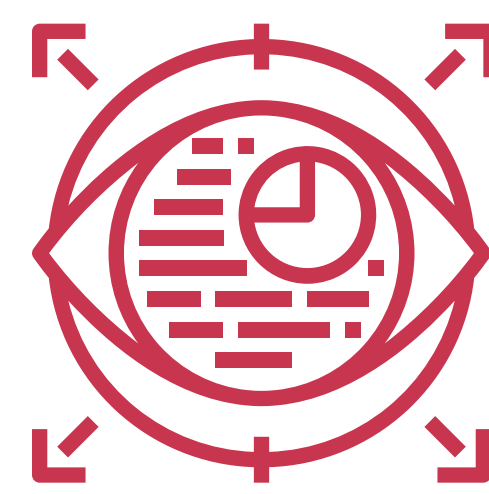
There are many ways to think about systems and systemic problems. Our approach to Systems Design derives from our experience as design thinkers infused with systems thinking. We believe this emulsion is better than the two separately in addressing wicked problems and complex systems.



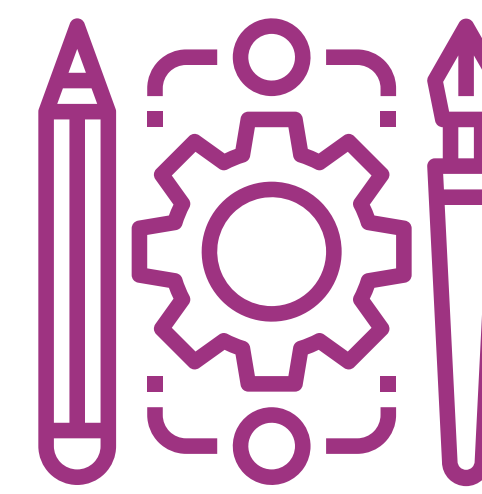
EXPLORE



MODEL



LEVERAGE



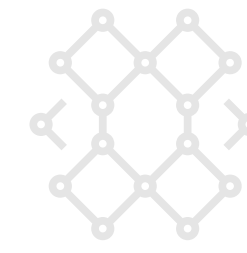
CREATE



Explore

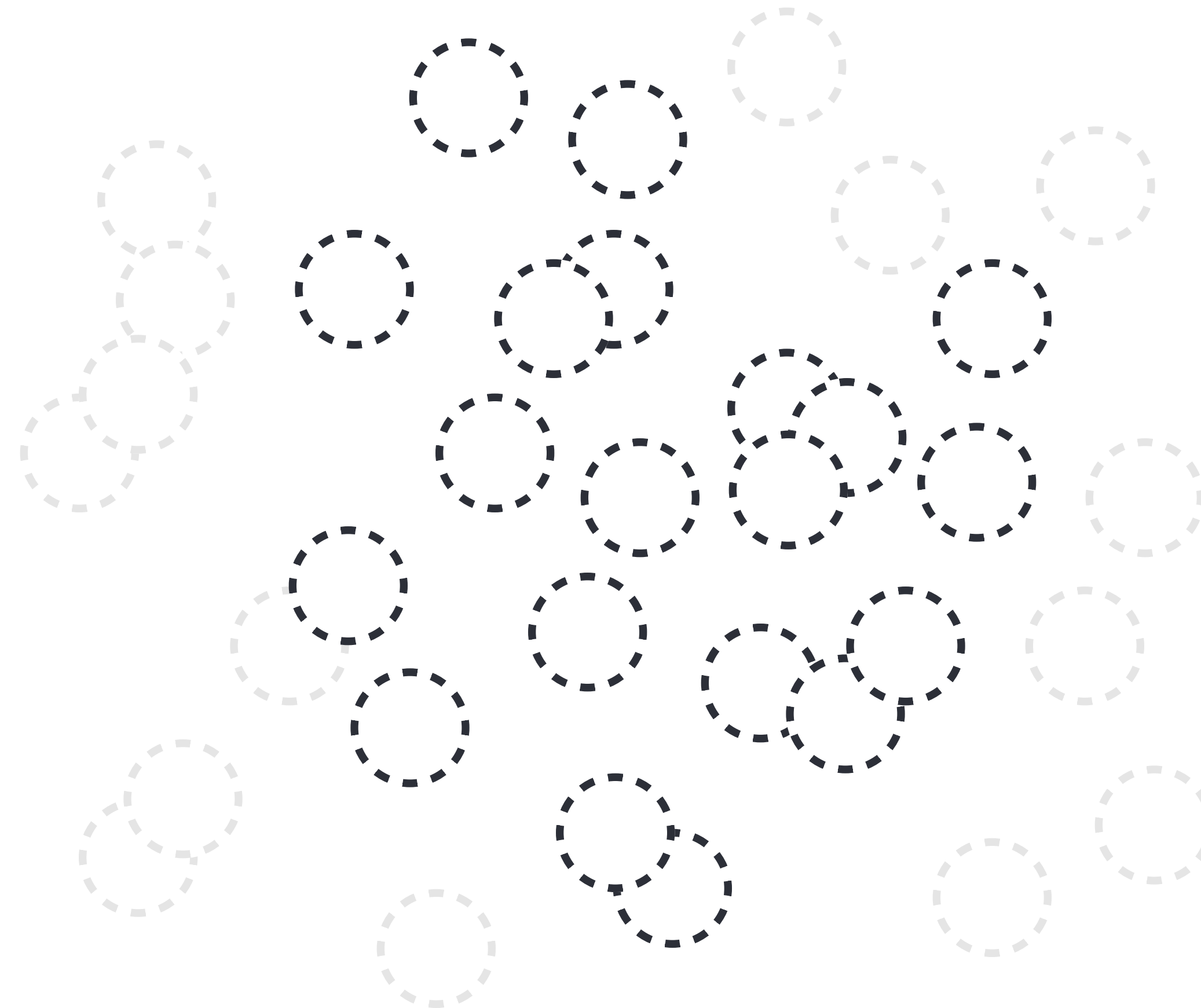
No one person can know a complex human system. To confront the realities of our systems, we have to explore the diverse human perspectives and behavior that inform and inhabit the space we're trying to change.

Explore

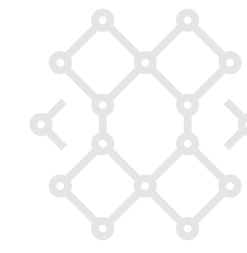


Framing

Systems, by their very nature, are hard to pin down. To explore our system we first have to decide what that system is; to define the bounds and edges.

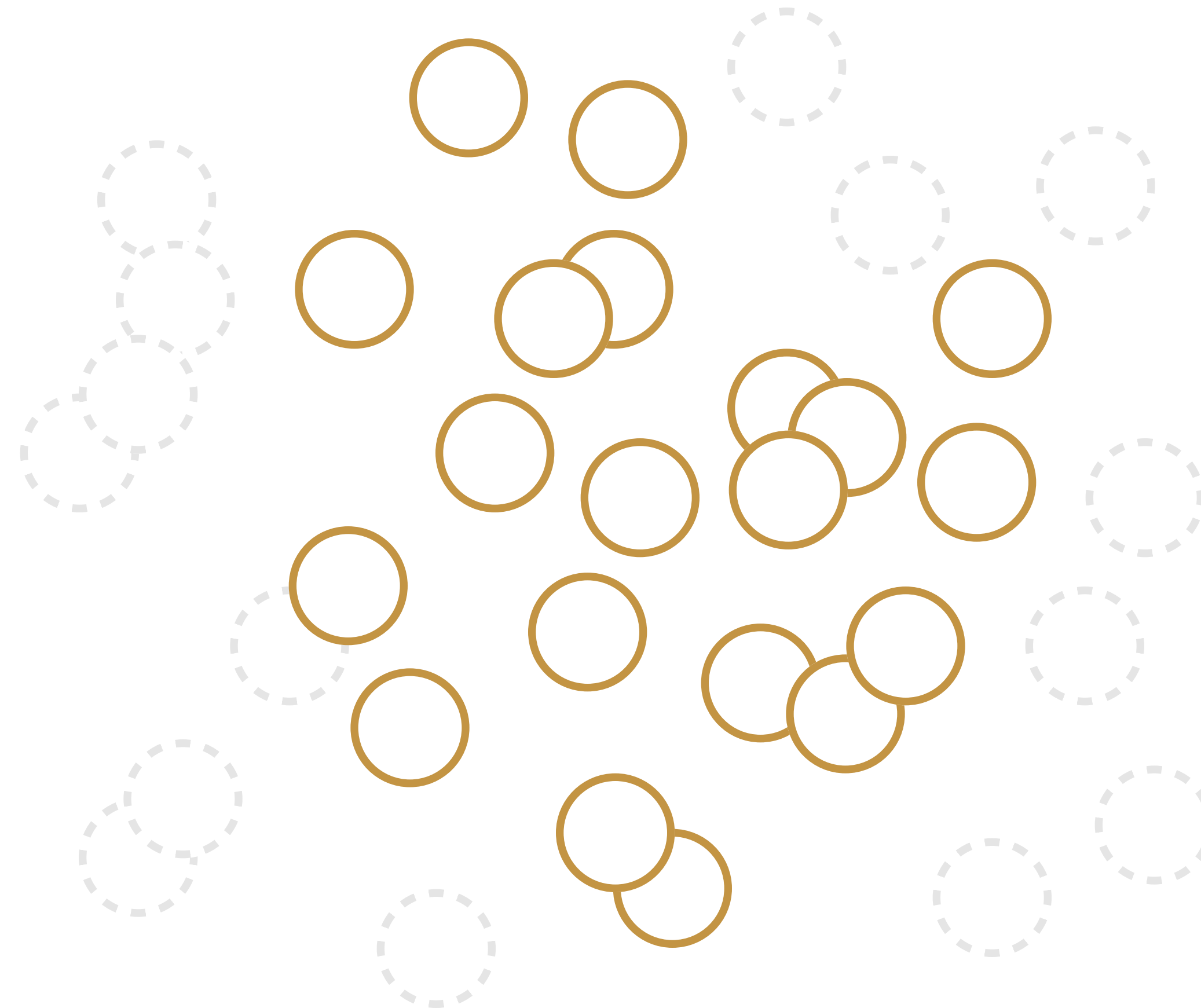


Explore



Gaining Perspective

Next, we listen to the system, understanding its form through the different technical and human perspectives that inhabit and define our system.



Systems Design in Action: **Long Term Care Study**



LONG-TERM CARE SYSTEM STUDY

An exploration of challenges and opportunities in pandemic and post-pandemic conditions

June 10, 2021

DESIGN
INstitute for
HEALTH

Systems Design in Action: **Long Term Care Study**



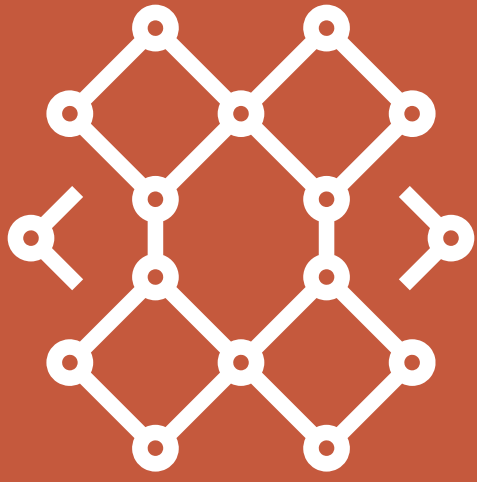
A Deep Dive into Long-Term Care & Covid-19



Explore

Exploration asks us to step outside our natural default setting, the automatic way we see the world, and the challenges we face. It forces us to see the system from perspectives that are decidedly not our own.

To do this requires us to strip away what we know, to dive in with curiosity, and immerse ourselves in the experience of others.



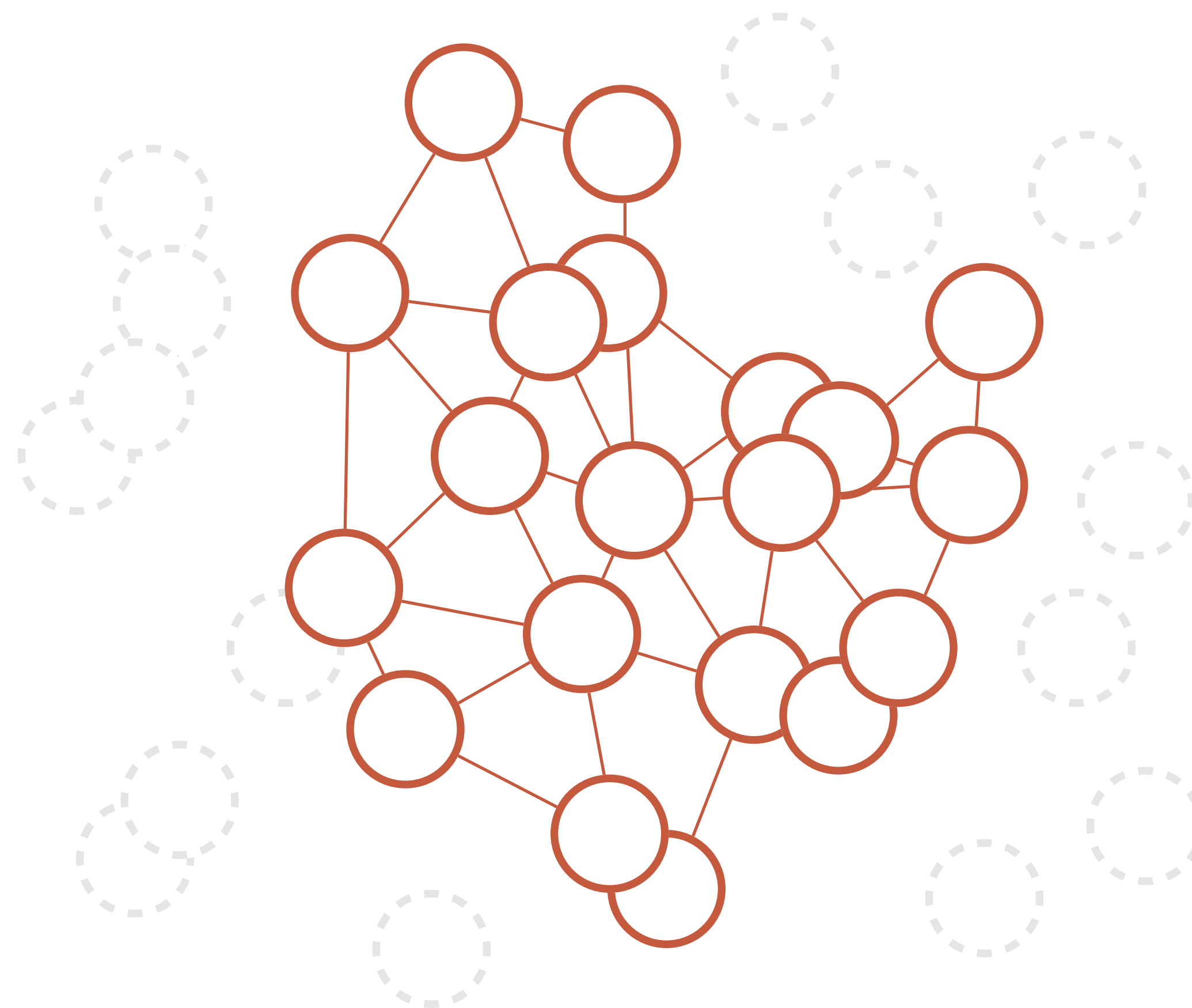
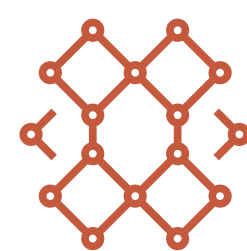
Model

We are collective parts of the systems we seek to change. Our analysis of that system requires oscillation between the micro and macro to understand the forces underlying the challenges we face. Collaboratively modeling a system creates the trust and acknowledgment that meaningful change requires.

Model

Articulate the System

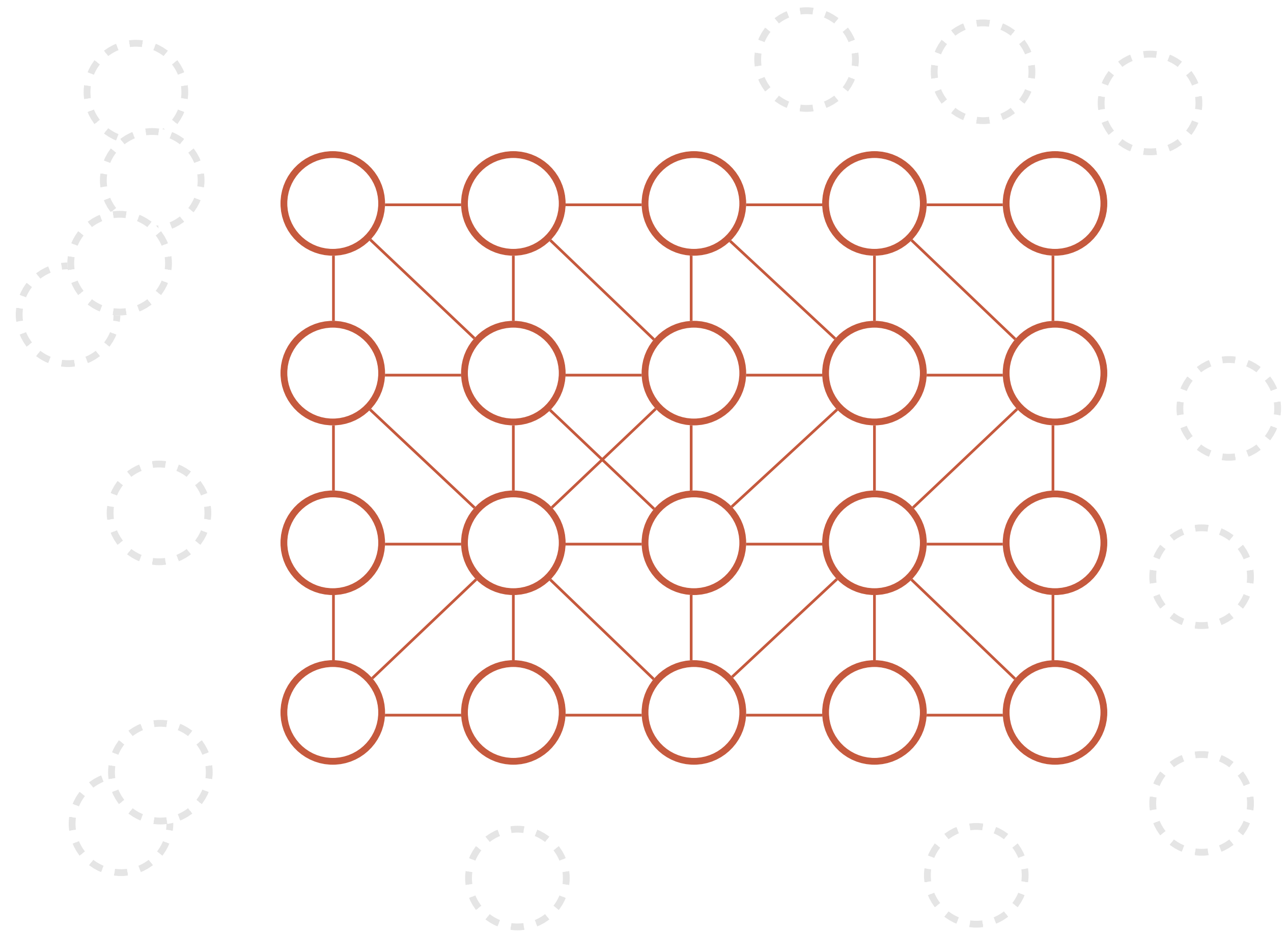
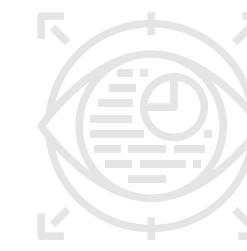
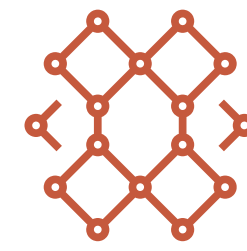
Leveraging the perspective we've built, we start articulating the system, creating a series of sketches, diagrams, and maps. Tangible artifacts that make the system real.



Model

Building Trust & Agreement

With our articulation as a starting point, we collaboratively and iteratively refine our model, creating mutual understanding in the form of a systems map.

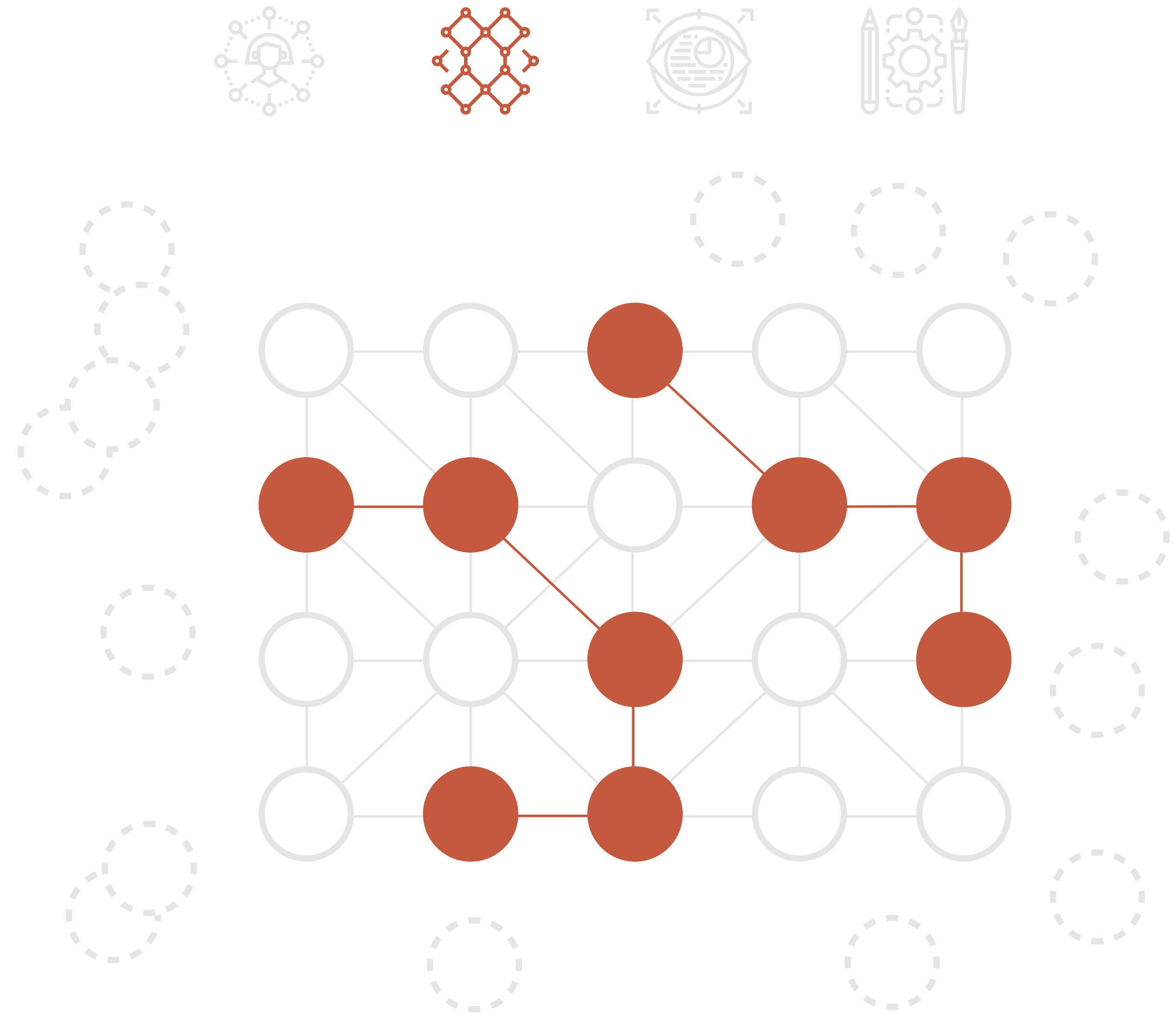


Model

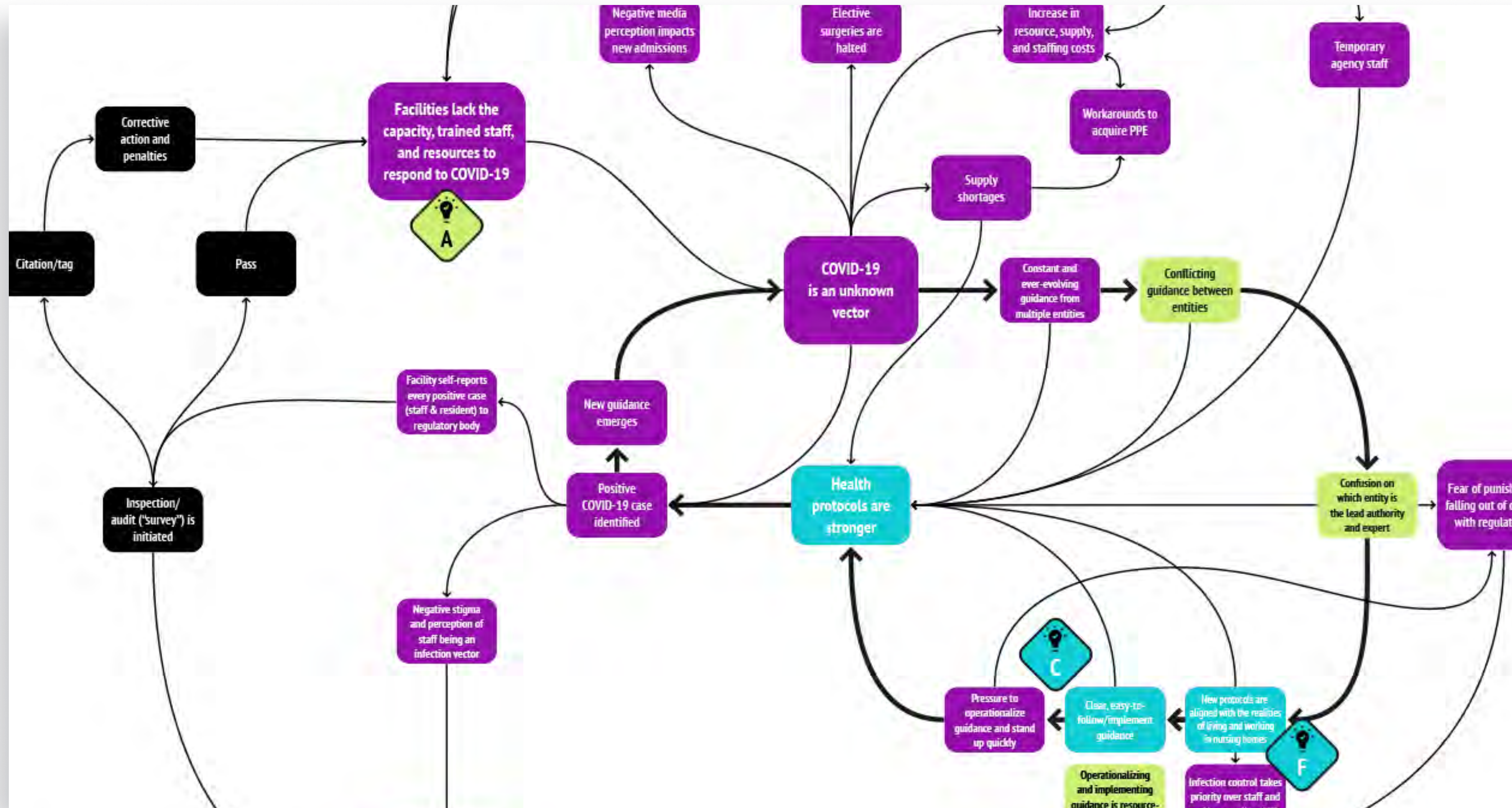
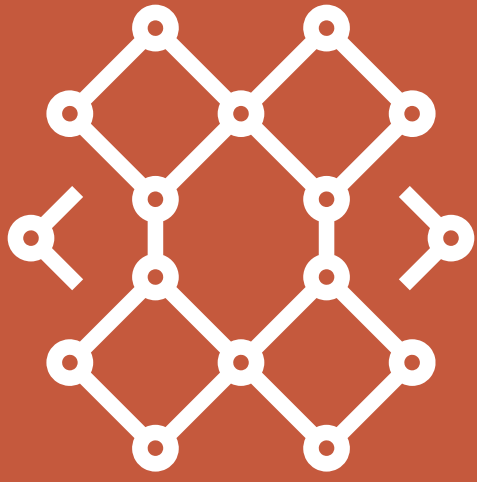
Deeper Analysis

Using our map, we explore causal links across time and scales to characterize the larger system dynamics.

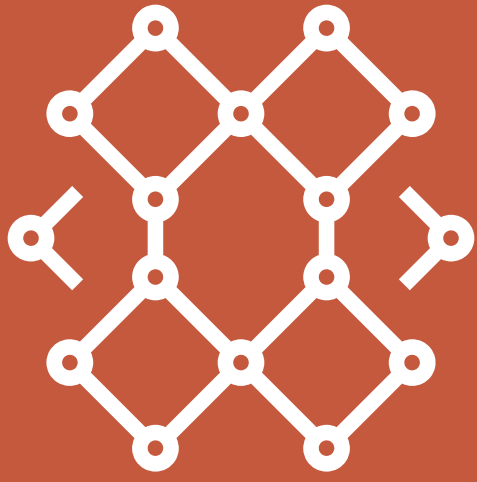
These deeper patterns are the key to understanding why actors in the system knowingly or otherwise perpetuate existing systemic challenges.



Systems Design in Action: Long Term Care Study



Causal Loop Diagram



Model

The systems map is the hero, the big visual providing clarity to something previously unknowable and opaque.

But, like all good things, the value is in the trip, not the destination. The map is an artifact of our collaboration. An acknowledgment that we are part of the issues we face. That collective effort and the trust it builds is core to Systems Design and systemic change.



Leverage

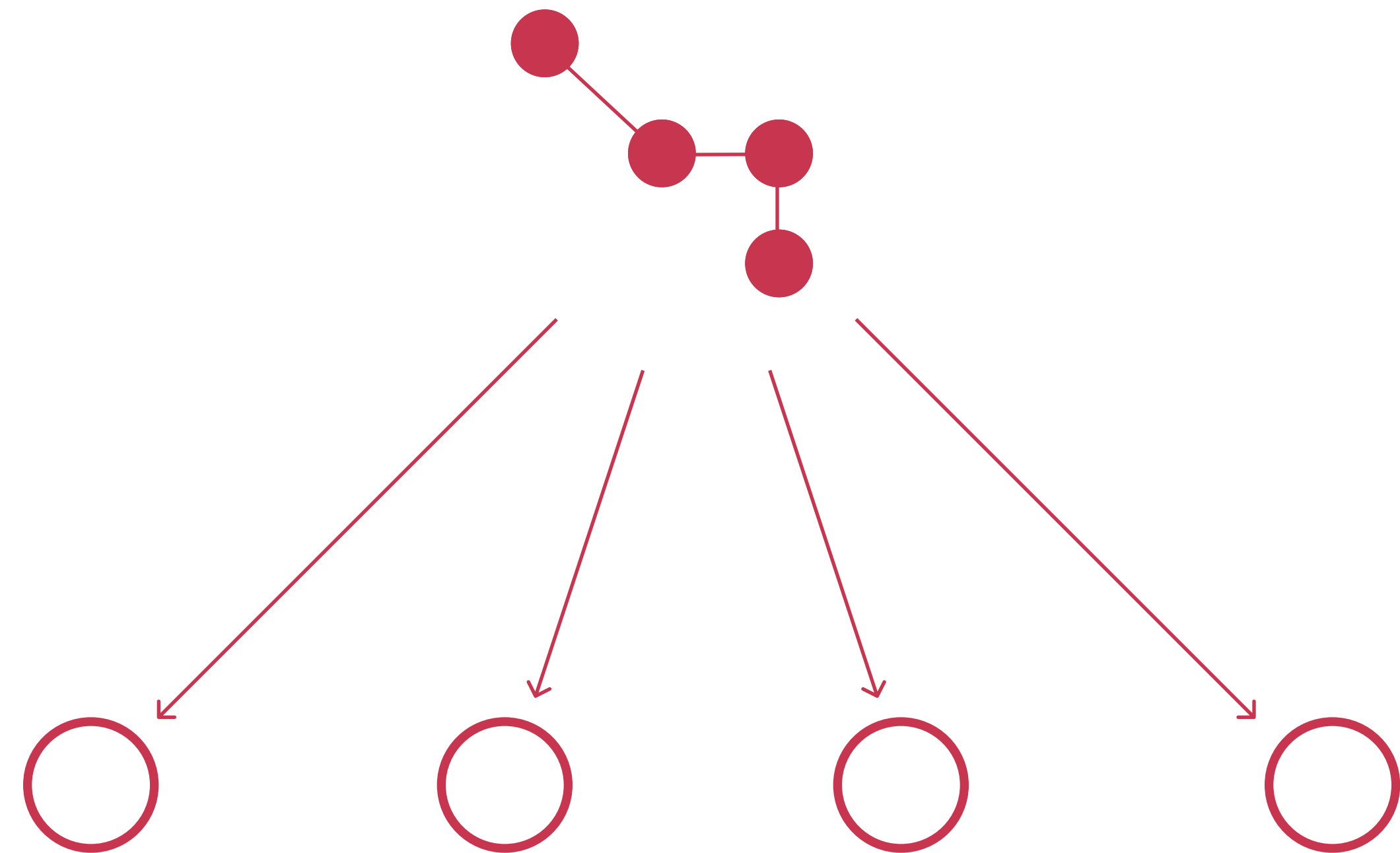
Every system has problems that need fixing; the trick is knowing which solutions provide us the leverage for creating systemic change. A shared set of priorities helps us shape and characterize our ideas in service of our systemic goals.

Leverage



Concept

Building off the insights generated in the Modeling phase, we craft “how might we” statements and create dozens of ideas to improve the system.



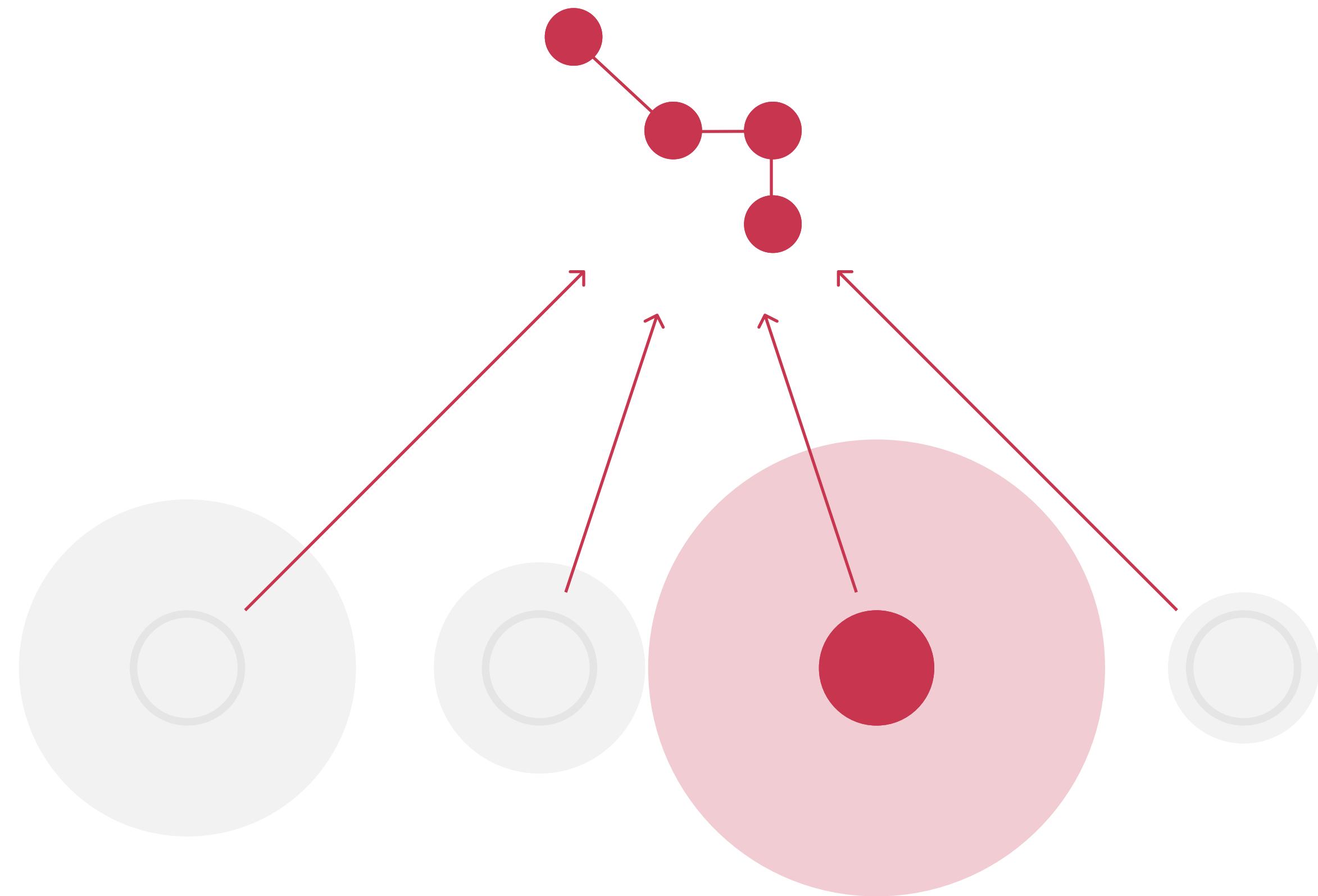
Leverage



Assess Leverage

Next, we assess ideas based on their potential to change the system and the work needed to realize them.

This concept of leverage points allows us better foresight into the opportunities where small changes could lead to outsized shifts in the system.




Systems Design in Action: Long Term Care Study



Overview of Strategic Opportunities



Evolving guidance for COVID-19 protocols will continue to impact our strategic opportunity areas

Strategic Opportunity matrix	1. Infection Control – COVID-19 and Beyond	2. Staff Wellbeing	3. Expansion & Evolution of Staff Roles	4. Staff Retention and Incentives	5. Resident Wellbeing
 NOW	<ul style="list-style-type: none"> Accommodating Different Learning Models Building Depth in Knowledge Cultural Self-Accountability Reducing Physical and Cognitive Load Accommodating Staff Basic Needs 	<ul style="list-style-type: none"> Preventing Staff Burnout 	<ul style="list-style-type: none"> Qualifying Non-Essential Staff 	<ul style="list-style-type: none"> Building Staff Morale 	<ul style="list-style-type: none"> Prioritizing Resident Dignity Resident Engagement with Peers Improving Communication Capabilities Sustainable and Adaptable Visitation
 NEAR	<ul style="list-style-type: none"> Interpreting Infection Control Guidance Differentiated Infection Control Guidance Optimizing Existing Space Improving Staff Experience in PPE 	<ul style="list-style-type: none"> Prioritizing Staff Mental Health 	<ul style="list-style-type: none"> Expanding Staff Capability 	<ul style="list-style-type: none"> Improving Remuneration Building Staff Camaraderie Developing Cultural Leadership 	<ul style="list-style-type: none"> Re-establishing Visitation Leveraging Community Assistance Communication Technology Solutions Coordinated Outbreak Isolation
 FAR	<ul style="list-style-type: none"> Contained Networks Across the System Flexible Space Considerations Equitable Access to Resources Proactive Future Planning 	<ul style="list-style-type: none"> Supportive Staff Spaces Community Partnership to Support Staff 	<ul style="list-style-type: none"> Addressing Staffing Gaps Advancing Staff Training 	<ul style="list-style-type: none"> Redefining Career Value 	<ul style="list-style-type: none"> Improving Family Placement Knowledge



Leverage

Not all ideas are created equal, and the solutions that seem most obvious aren't always the ones that carry the potential for the greatest change.

Understanding the system and its underlying forces allows us to be much more strategic in our approach; find the ideas that enact the most impact for the smallest cost.

“For every complex problem there is an answer that is clear, simple and wrong.”

- **H.L. Mencken**



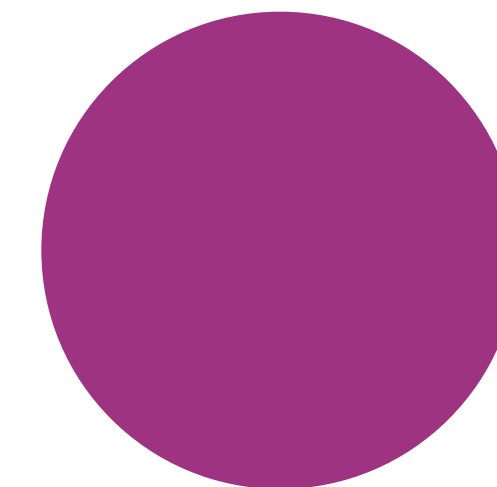
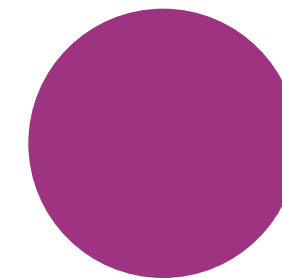
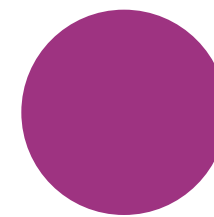
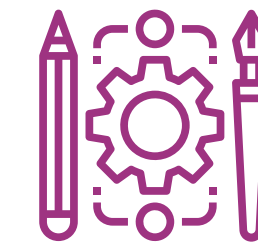
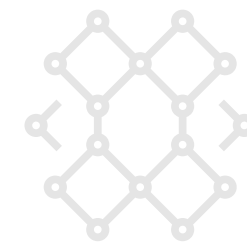
Create

Systems are constantly changing; we can never fully know how our interventions will affect change. All we can do is create, assess, and iterate. Inaction in the service of perfection is the enemy of innovation.

Create

Prototype

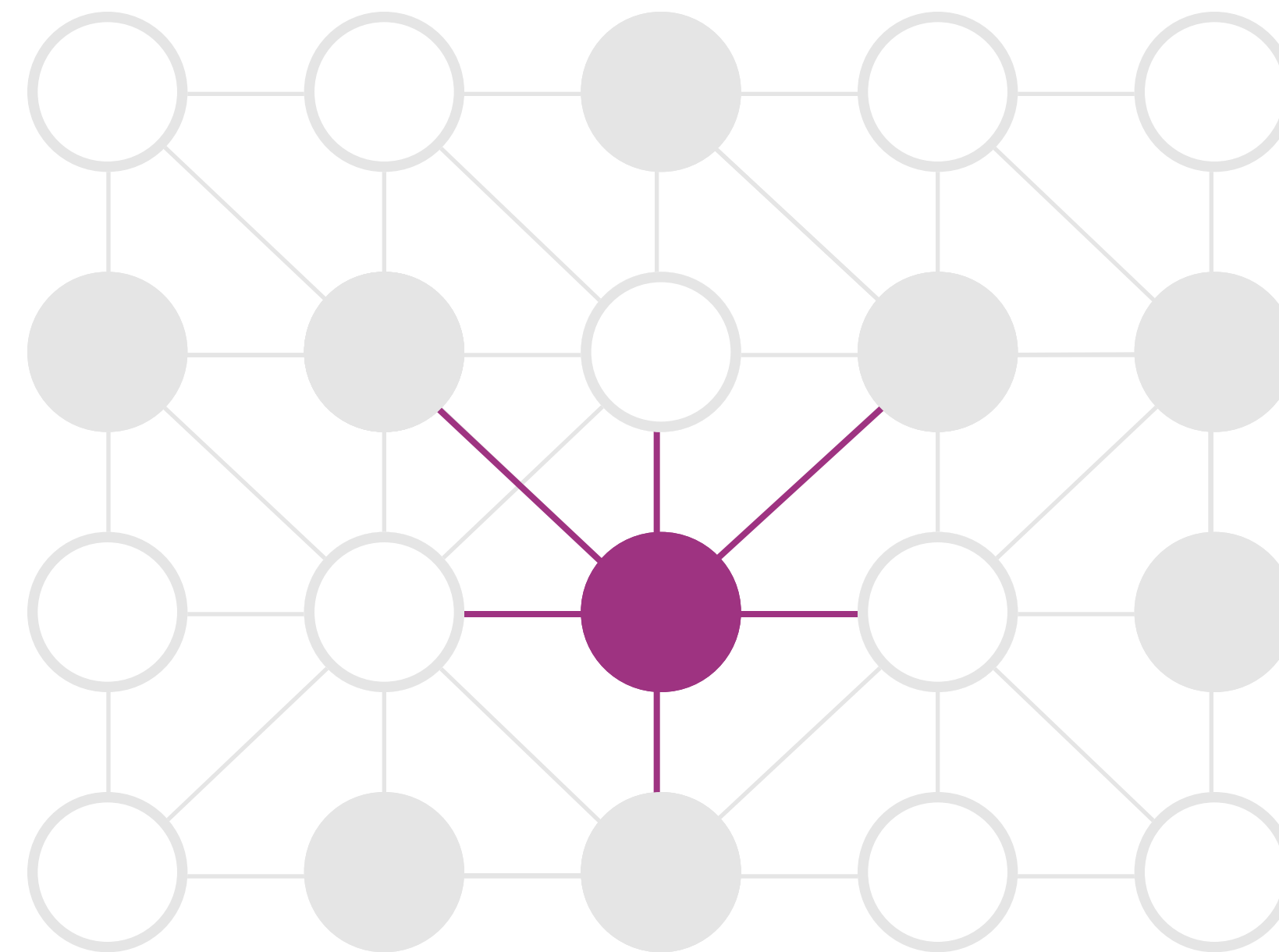
Prototyping is the act of making progressively higher fidelity articulations of an idea until it's real. Starting from simple sketches and working our way up we build, test, iterate, and repeat.



Create

Implement

With an idea refined, tested, and vetted, we can implement it. Change management can happen slowly, often with small pilots, as we support individuals and teams in adopting and owning the change.

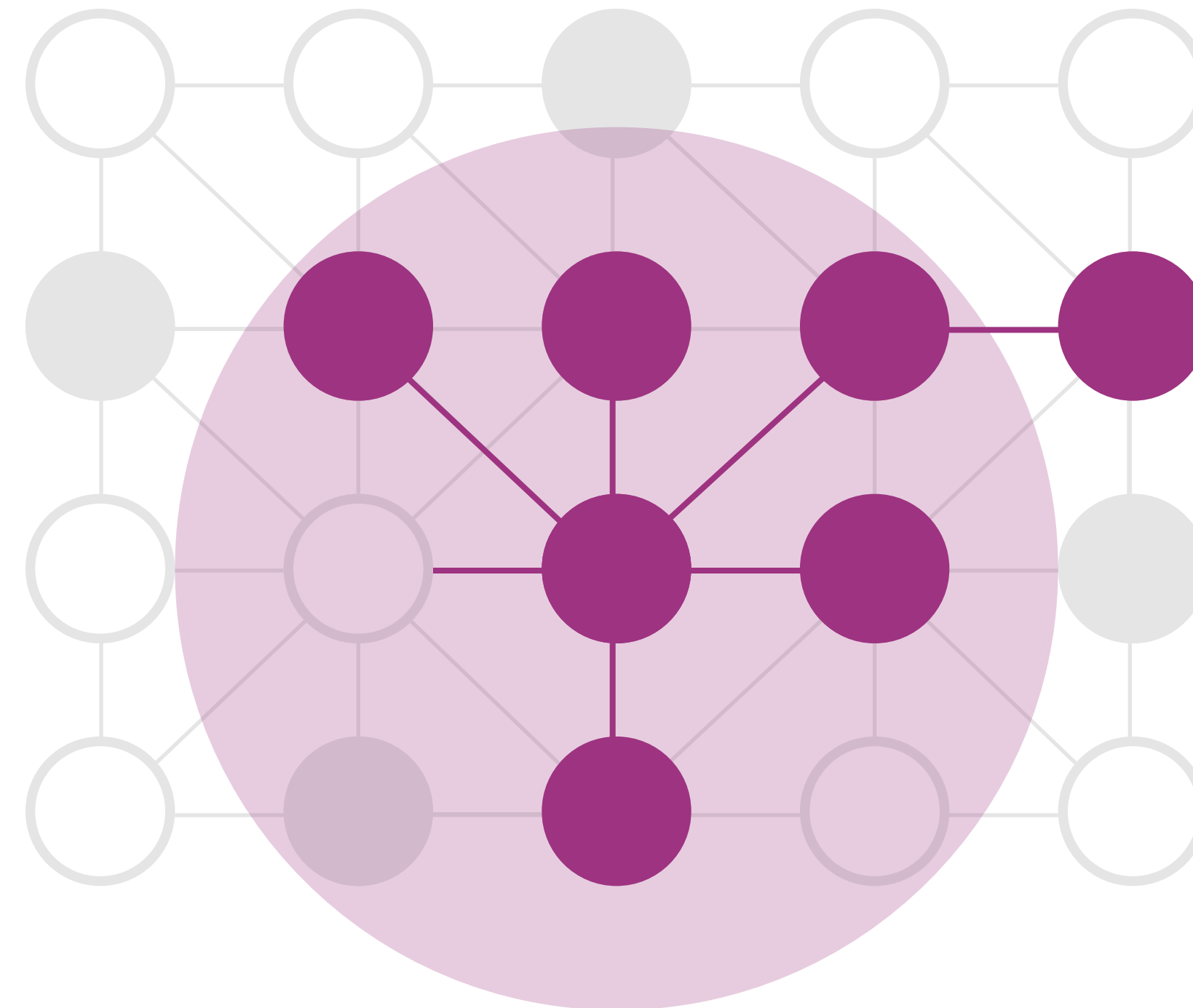


Create

Impact

Complex systems are dynamic, non-linear, and often surprising. Our intended outcomes might come with a suite of secondary effects that manifest in different parts of the system.

Our job as systems designers is to continually assess, both quantitatively and qualitatively, our interventions over time.



Systems Design in Action: **Long Term Care Study**



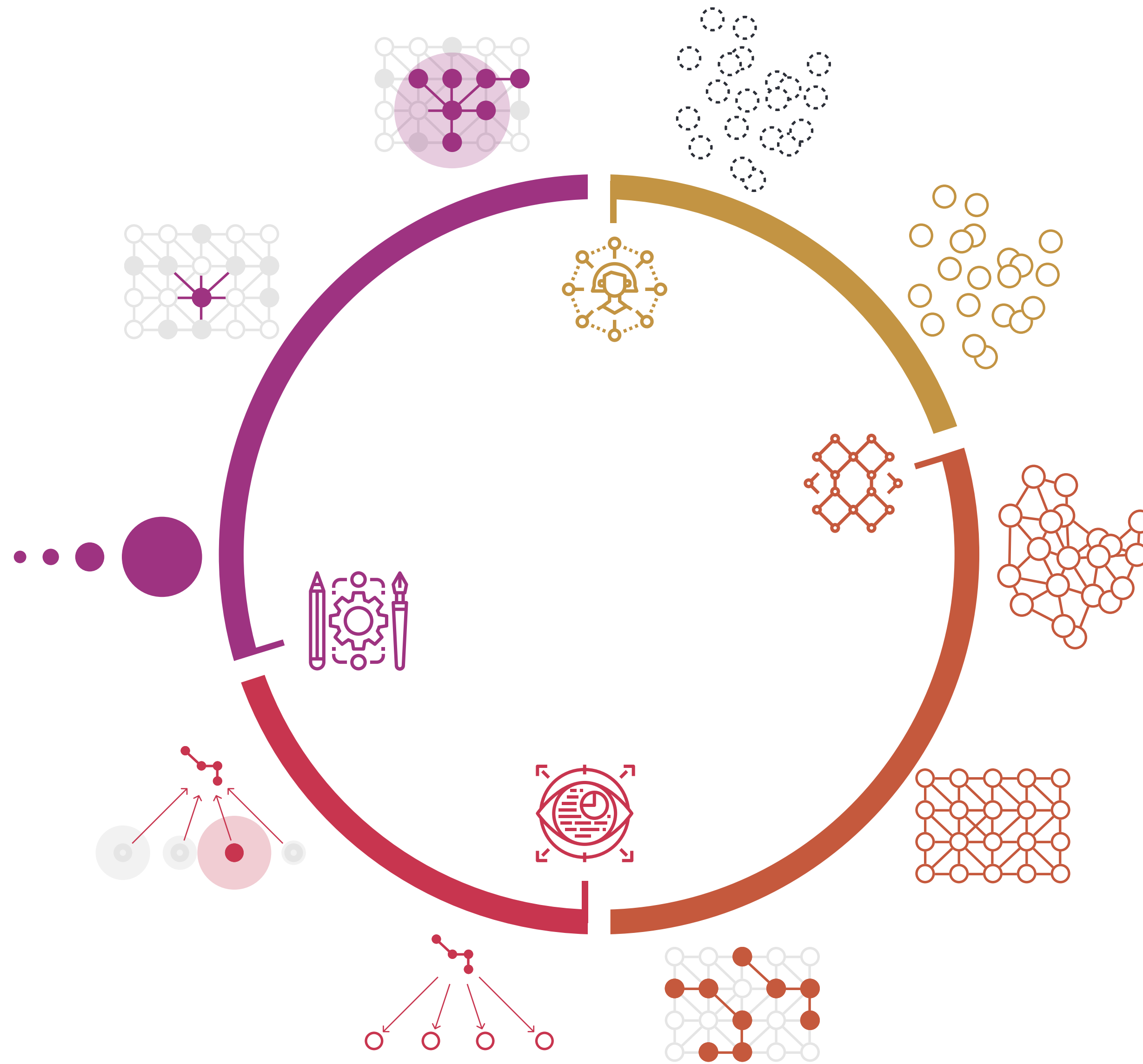
Our newly implimented infection control protocols.



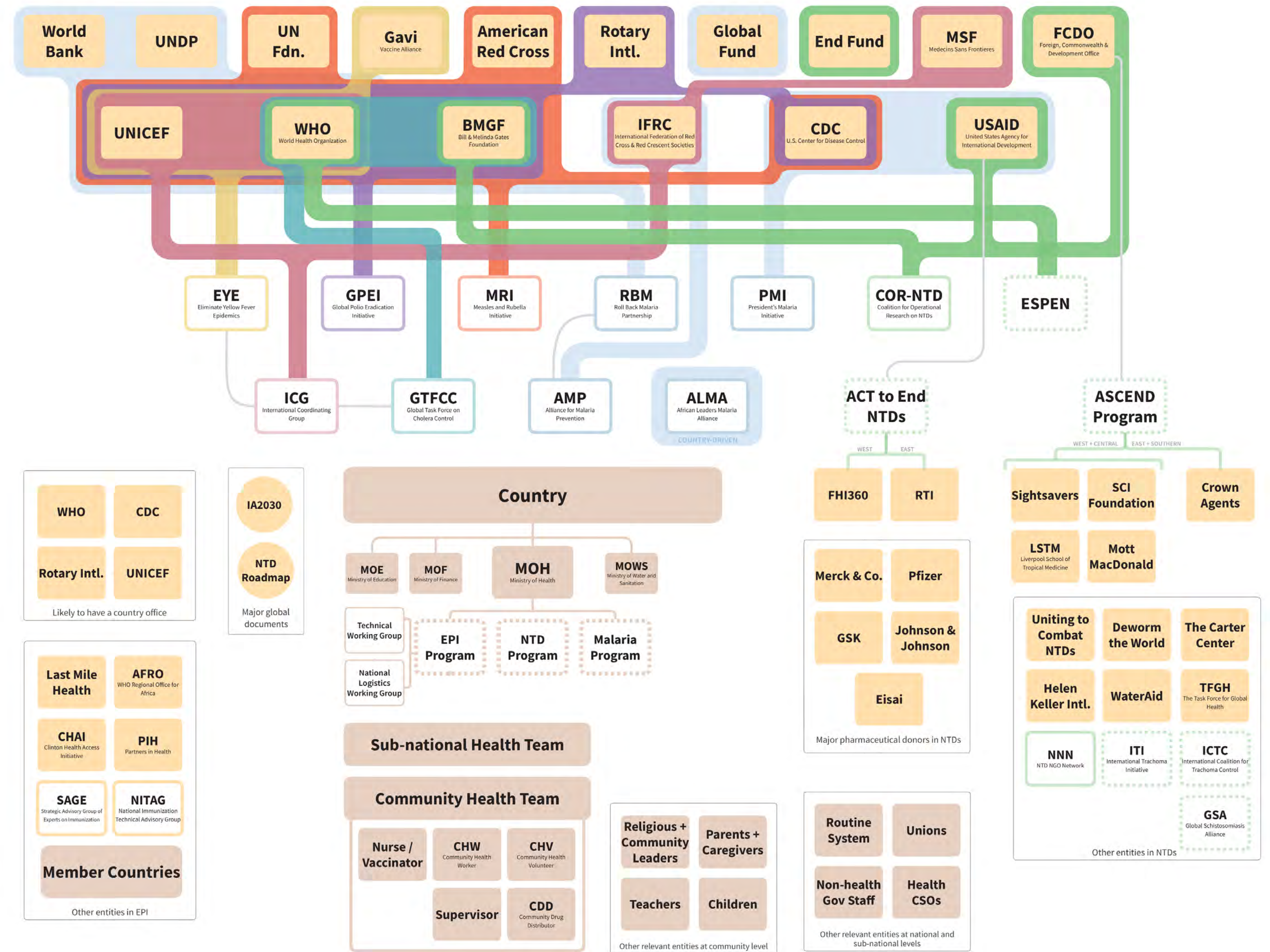
Create

Systems design is the marrying of systems thinking and design doing. It's in creating that we make good on that second point.

In changing complex systems, it's impossible to predict the outcome. In the end, small, imperfect ideas, thoughtfully grown over time, carry true systemic transformation.



How are you thinking systemically about the challenges you face?



How are you thinking systemically about the challenges you face?

