

# Brainstorming

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CS 247

THANKS TO SCOTT KLEMMER AND MANEESH AGRAWALA

Congrats on P2

# Act III: Prototyping

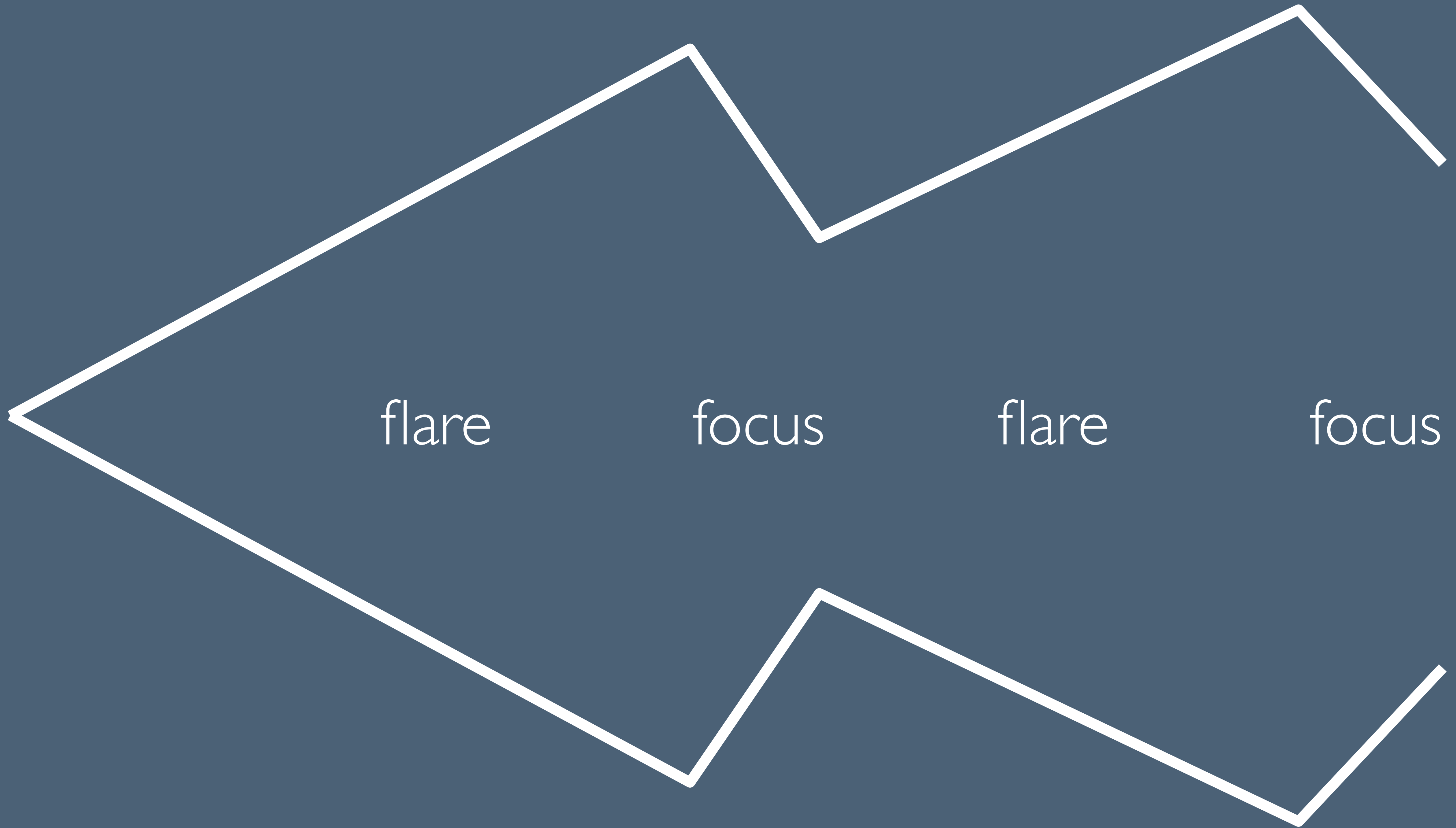
# Forty circles

Sixty seconds. How far can you get?

“Math is easy.  
Design is hard.”

Jeffrey Veen, former VP of Product Design at Adobe





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# Cardinal rules of brainstorming

- Go for quantity
- Defer judgment
- Enforce a time limit
- Riff and build on others' ideas

# Roles in brainstorming

- Facilitator
  - Not the manager or leader!
  - Keeps the conversation flowing
- Recorder
  - Gets everything up on the whiteboard (or sketchbook)
- Participant



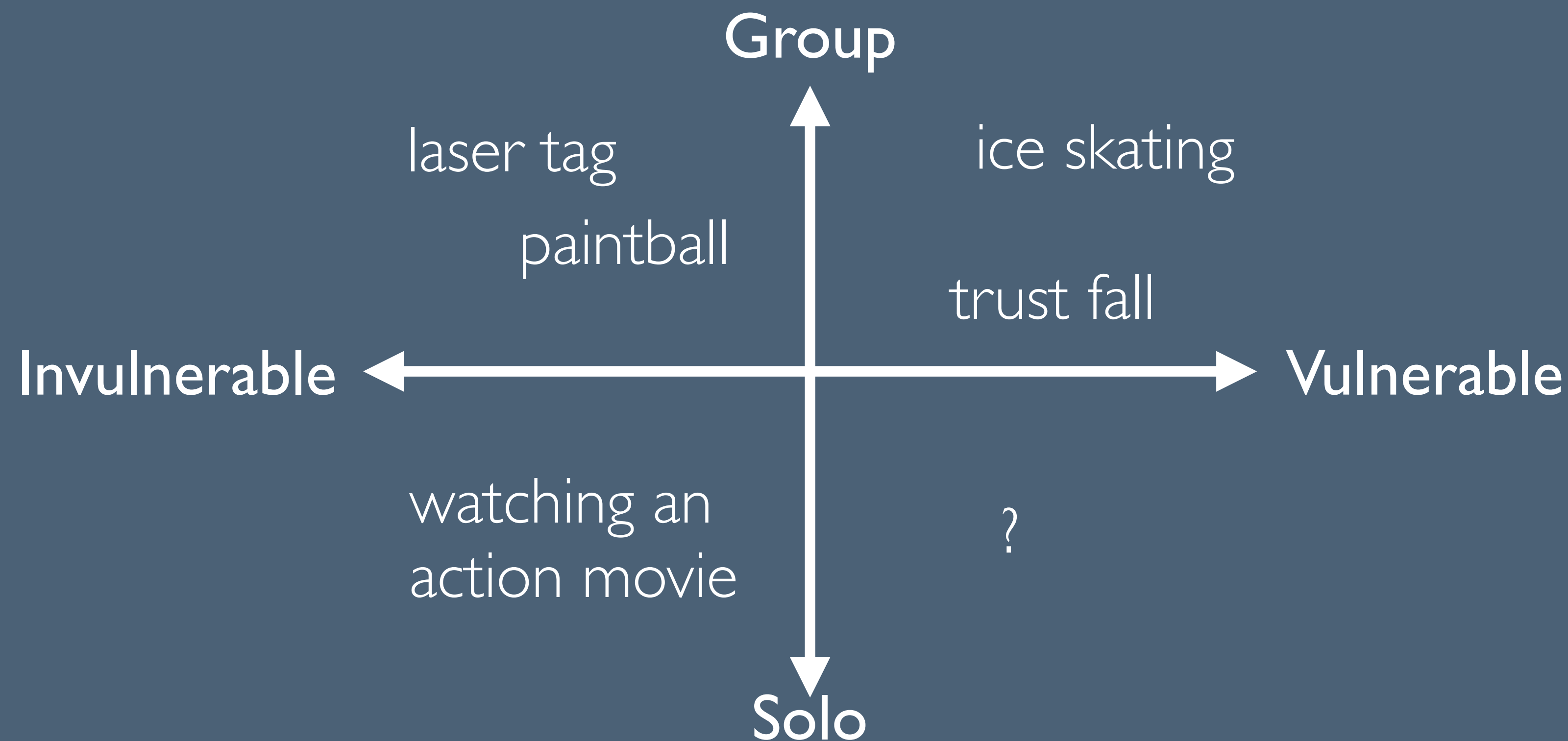
# Brainstorming strategies

# One tactic: Powers of Ten

- When you're considering a question, scale it up and scale it down
- Ice skating as a deliberate controlled vulnerability...
  - Could 1000 people at once engage in a controlled vulnerability activity? Could someone do it alone?
  - Could we do this in extreme heat environments?

# Design space axes

- Pull out high-level dimensions along which your observations or ideas vary, then look for holes

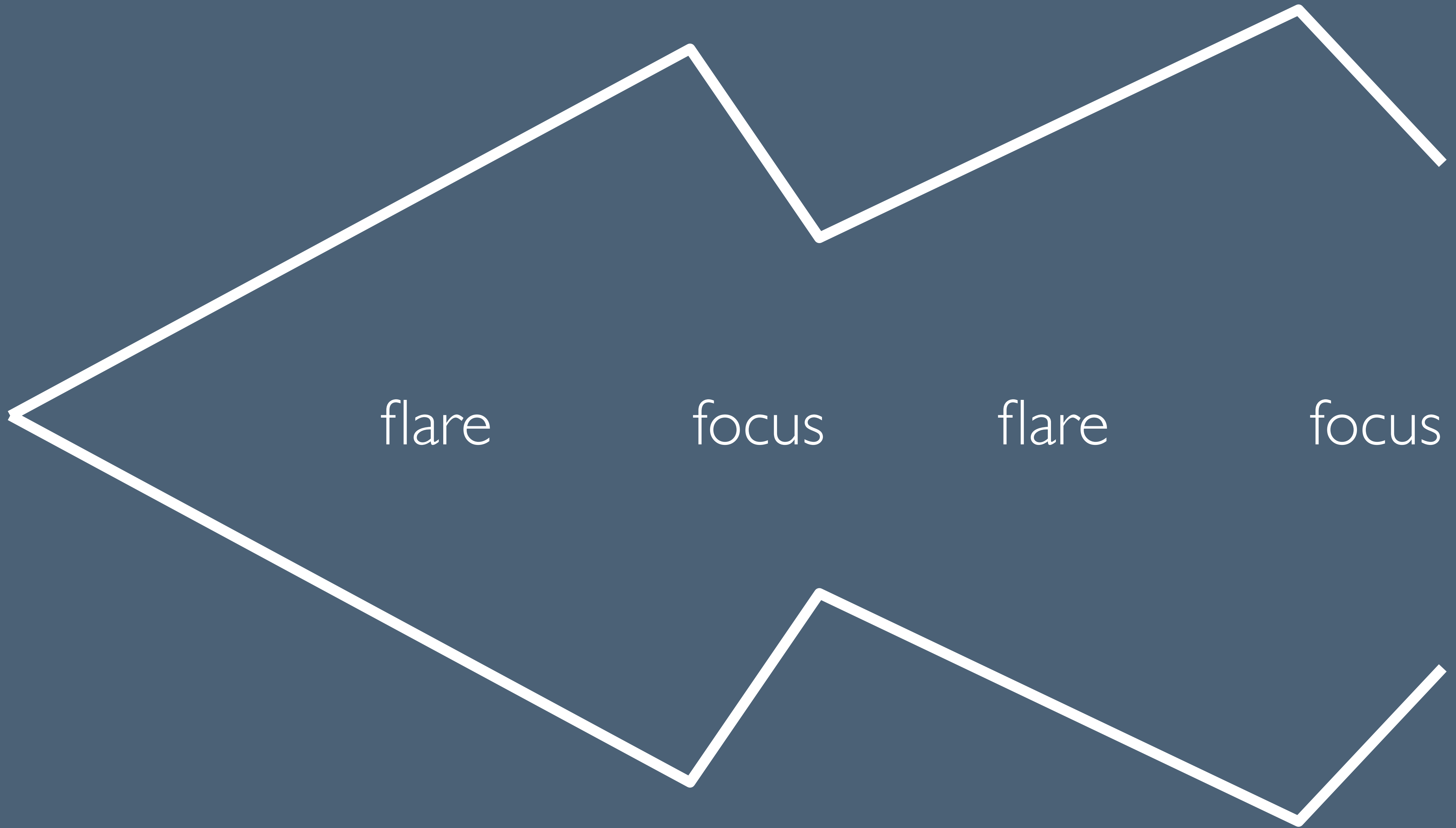


# Good ideas can be bad

- Ideas intended to address the How Might We's often end up as local fixes or “safe” solutions
- They are right, but boring. These ideas often become the targets of **design fixation**.

# Dark horse prototyping

- Include one idea and prototype that is intentionally far out or nearly impossible. Sometimes, it wins.
- Even when it doesn't win, it helps prevent design fixation.
- You will be doing this in P3



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# P3: Prototyping

- Goal: fluency with ideation and prototyping
  - Picking the right elements to prototype
  - Ideating and iterating rapidly across multiple prototypes
- Out today
  - Form a team — with at most one other person from your P2 team