

# Engineers' top pain points in the custom manufacturing lifecycle

Fast Radius' new report shows the need for improved digital infrastructure to streamline communication and accelerate manufacturing workflows in 2022

Inefficient communication and poor part quality are among the most pressing custom manufacturing challenges for engineers. To better understand these pain points, Fast Radius surveyed 250 custom manufacturing customers — and explored how digitizing and streamlining processes with [cloud manufacturing](#) can offer a solution.

## Higher costs and rushed development cycles put pressure on product teams

Shorter product development timelines leave less time for critical feedback and improvements during the design and development phase, impacting customers' bottom lines — and their ability to innovate.

**58%** of respondents say that product development cycles keep getting shorter and shorter.

**52%** say reducing the costs of new product development would help them innovate more frequently.

**52%** have found out about delays or errors in production after it was too late to hit their shipping deadlines, and 73% say these errors caused budget overages.

## Inefficient communication and lack of feedback slow design and development

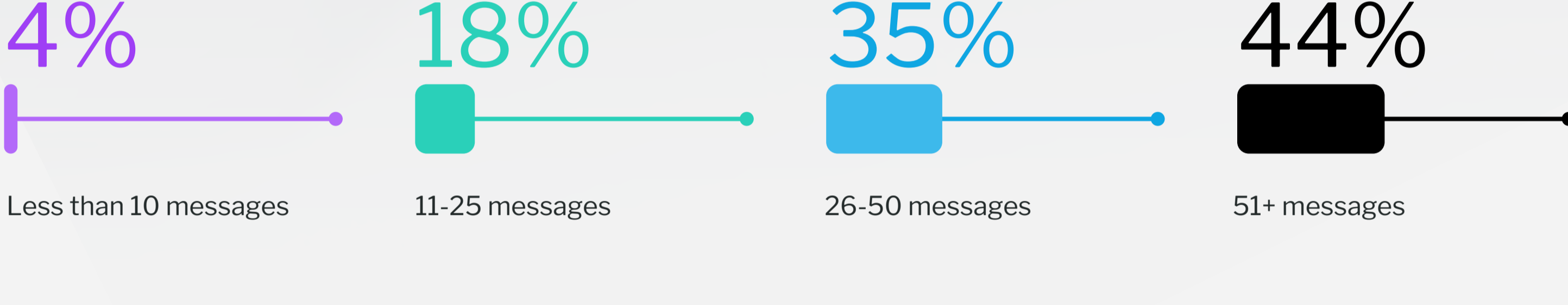
Inefficient communication is the number one design and development pain point

Top pain points during design and development

ONE	Communicating with manufacturers takes up too much of my time	28%
TWO	The quotes I receive from manufacturers are inaccurate	20%
TWO	Manufacturers' minimum order quantities (MoQs) are too high for my needs	20%
THREE	It takes too long to get a quote from a manufacturer	17%
FOUR	Manufacturers have trouble understanding my project requirements	15%

There's too much back-and-forth with custom manufacturers

Number of messages exchanged over the course of the manufacturing process

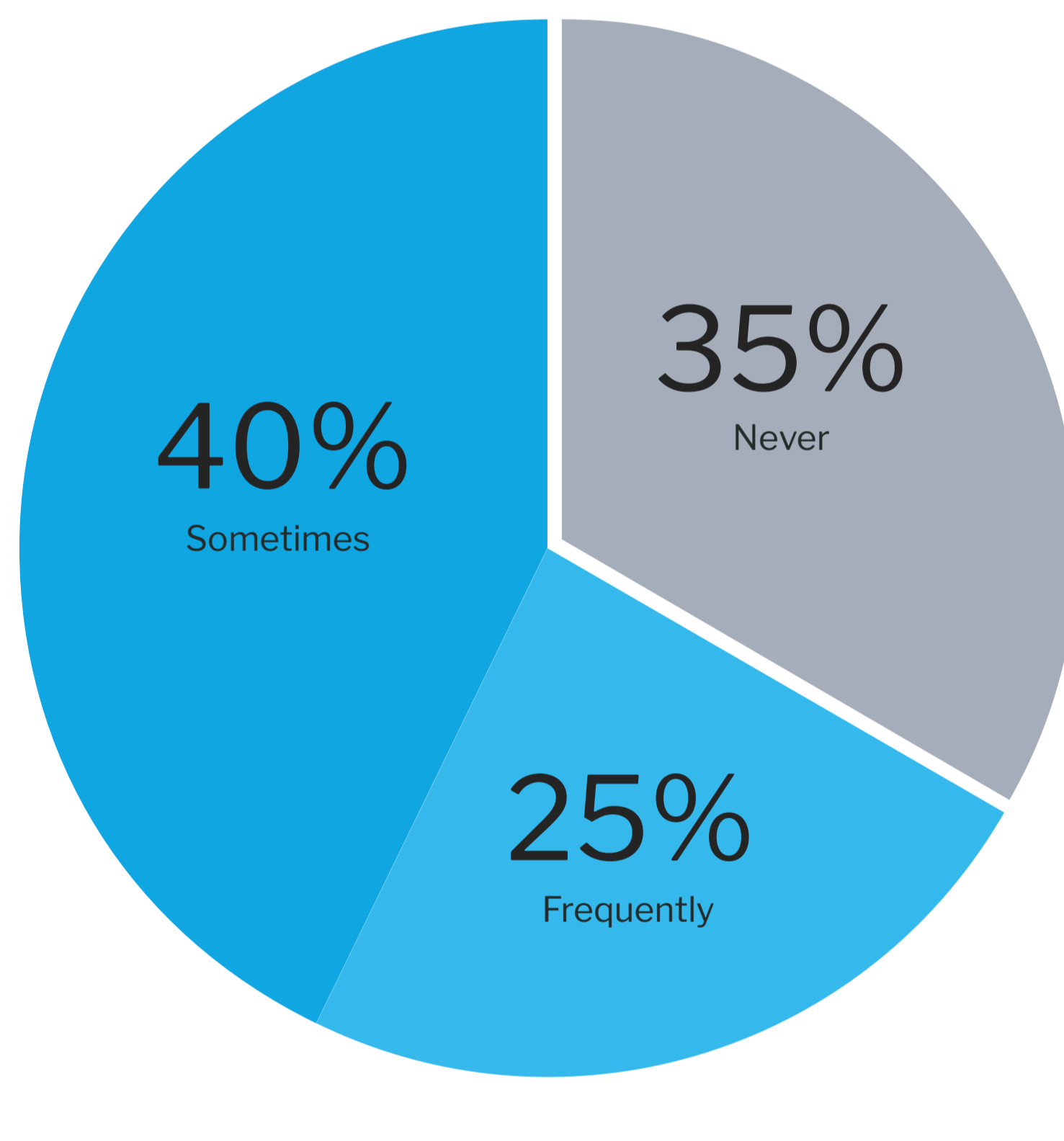


Most respondents connect with custom manufacturing partners by phone (58%) and text (56%) rather than a centralized app or portal, heightening communication inefficiencies.

## Working with multiple custom manufacturing partners may exacerbate quality issues

Quality issues are common within the custom manufacturing lifecycle

How often respondents say custom manufacturing partners deliver parts made inconsistently or not up to spec

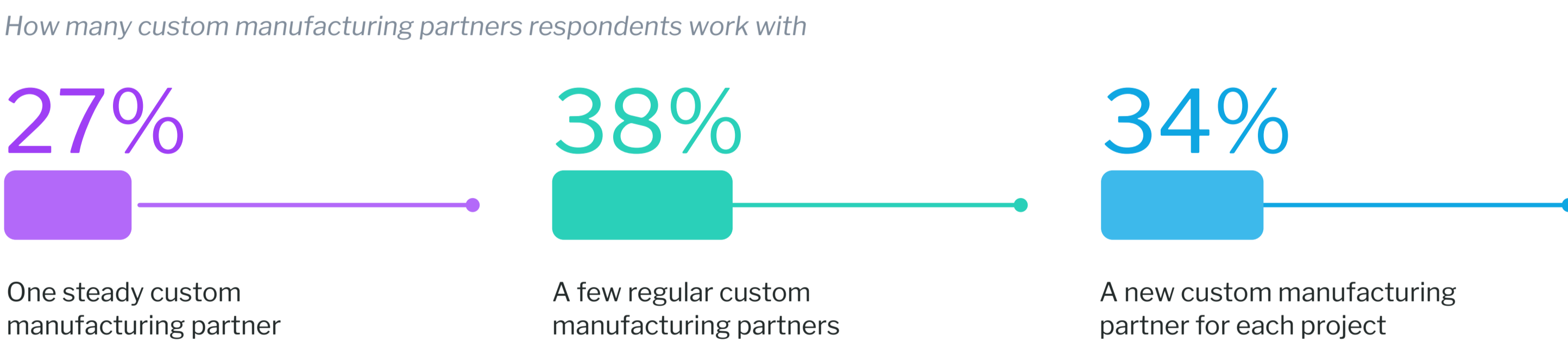


**47%** of respondents say custom manufacturing partners rarely or never offer feedback on part designs, making quality assurance more difficult.

**51%** of respondents say inconsistent product quality has impacted their bottom line in the past 12 months.

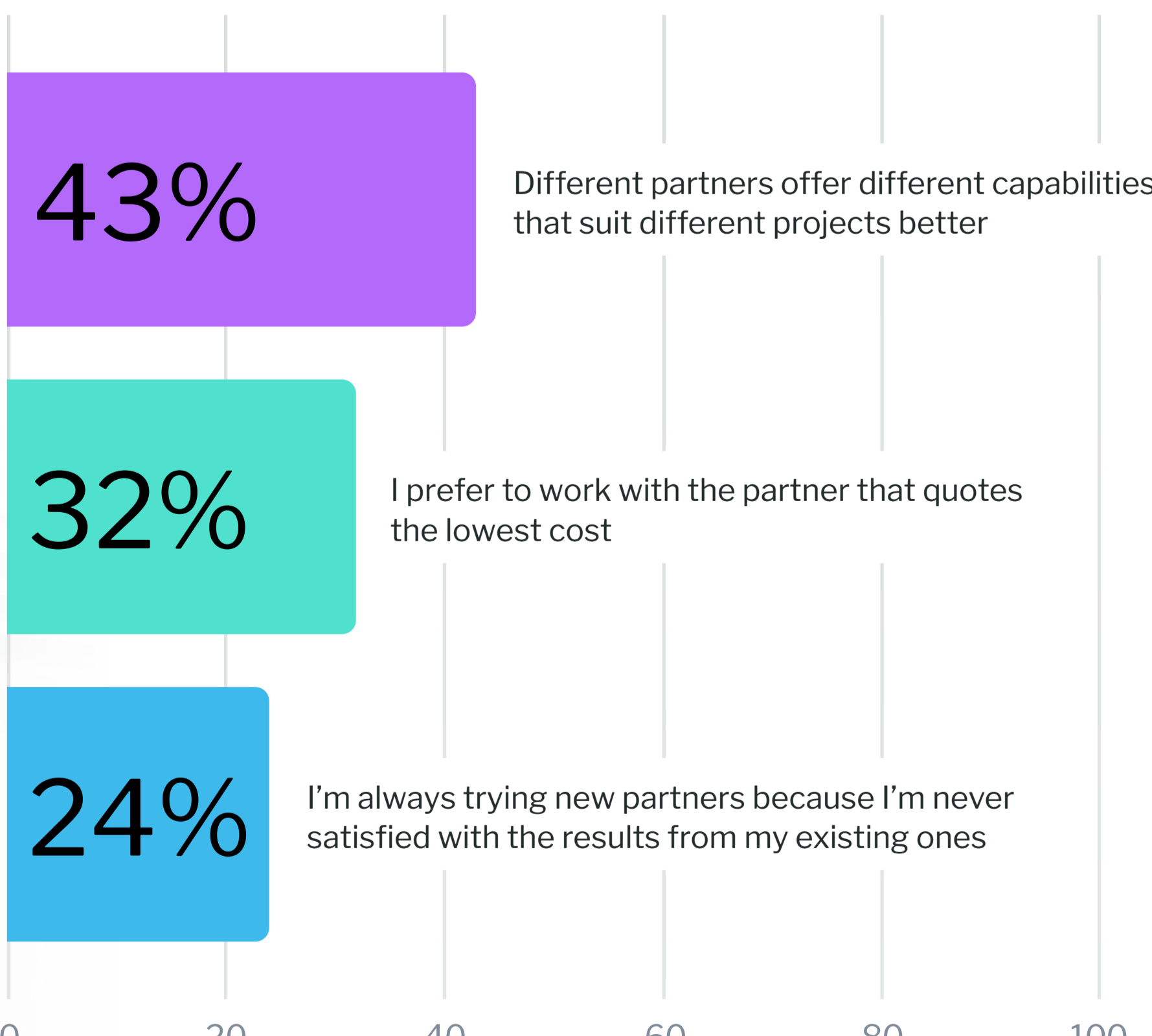
Most respondents work with multiple custom manufacturing partners — making it more difficult to benefit from institutional knowledge

How many custom manufacturing partners respondents work with



Lack of capabilities is the top reason respondents switch custom manufacturing partners

Top 3 reasons for switching custom manufacturing partners



## Cloud manufacturing streamlines manufacturing processes

[Cloud manufacturing](#) unites all stages of the manufacturing lifecycle within a common digital infrastructure, creating a flexible platform with the potential for global scale. This system solves for key custom manufacturing pain points by providing:

A single, highly capable partner informed by built-up institutional knowledge

More streamlined communication within a centralized digital infrastructure

In-depth manufacturability feedback that heads off quality issues before they start

No more surprise errors thanks to real-time updates on quality, production, and more

The design and development process doesn't have to be synonymous with spotty communication and quality concerns. By working with an expert cloud manufacturing partner, engineers can gain the support and access they need to avoid manufacturing hurdles.

Uncover today's custom manufacturing trends — and the power of cloud manufacturing

[Read the report](#)