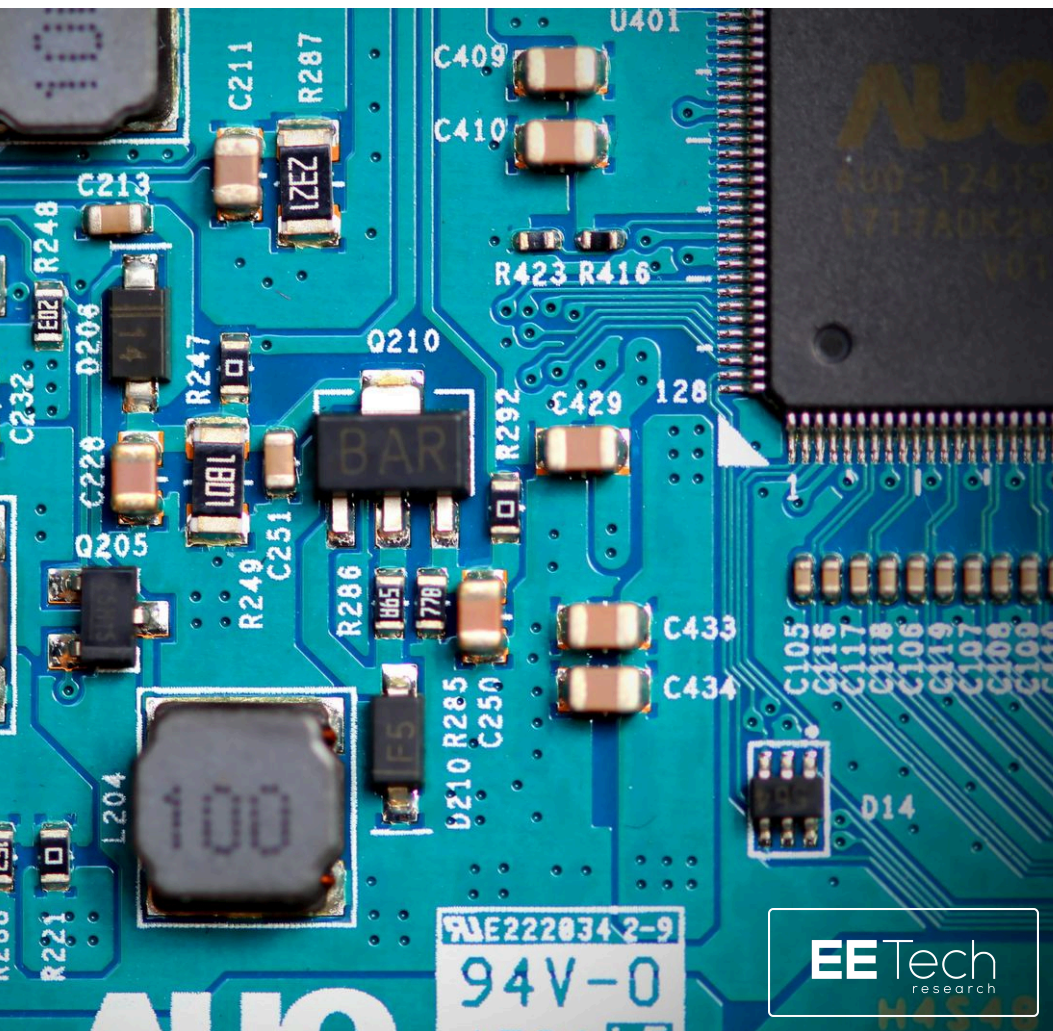




MILLENNIAL/Z REPORT

How Millennial and Gen Z engineers differ from their seasoned peers—uncovering what drives their decisions, challenges, and engagement in today's engineering landscape.

INTRODUCTION

Now in its eighth year, **EETech's annual Engineering Insights Report** delivers essential insights into the mindset of electrical engineers, revealing their decision drivers, content consumption habits, information sources, and supplier preferences. In the past, we have traditionally compared Next Gen engineers (those with under five years of experience) with veteran professionals, but **the current industry landscape calls for a new perspective.**

Millennials and Gen Z are projected to make up 74% of the global workforce by 2030.

-Deloitte

For this study, **Millennial and Gen Z refer to engineers by experience level, not age**—those with 14 or fewer years of professional experience. We compare their behaviors, values, and buying preferences with those of Career Pros, who have 15 or more years of experience.

Why the shift? Because Millennial/Z engineers are no longer the next generation—they're the **now** generation. As they grow into leadership roles, their influence on supplier selection, product design, and purchasing behavior will only increase.

For marketing teams at semiconductor manufacturers, component distributors, and related B2B companies, this report provides data-driven analysis of this generational transition. It illuminates what motivates newer engineers, their engagement preferences, and where traditional tactics may fall short. Our findings draw from a comprehensive global survey of **more than 1,000 electrical engineers**, primarily from North America.

This report provides clear takeaways and strategic guidance to help marketing teams stay ahead of generational shifts. As Millennial/Z engineers take the reins, **the time to adapt is now.**

DEMOGRAPHICS

With over **1,000 engineers** surveyed globally, this report captures a clear picture of who's shaping the future of electronics—regionally, professionally, and organizationally.

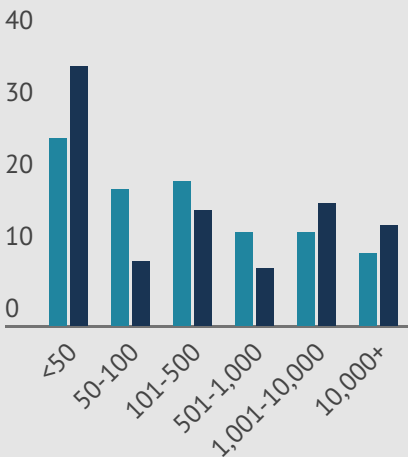
The majority of respondents are in **North America**, followed by Europe, with smaller samples in remaining regions, offering global perspective with a North American emphasis.

57% of engineers have 14 or fewer years of experience. Millennial/Z engineers are quickly becoming the industry's dominant voice.

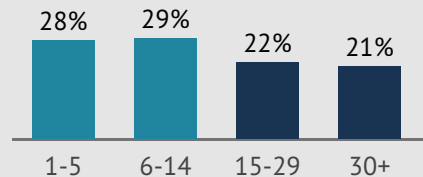
Millennial/Z engineers are more likely to work at **small to mid-sized companies**. This indicates younger engineers are influencing decisions in dynamic, growing companies, not just legacy organizations.

COMPANY SIZE

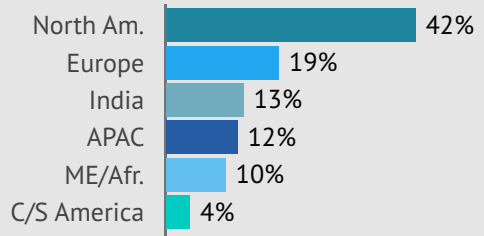
● Millennial/Z ● Career Pro



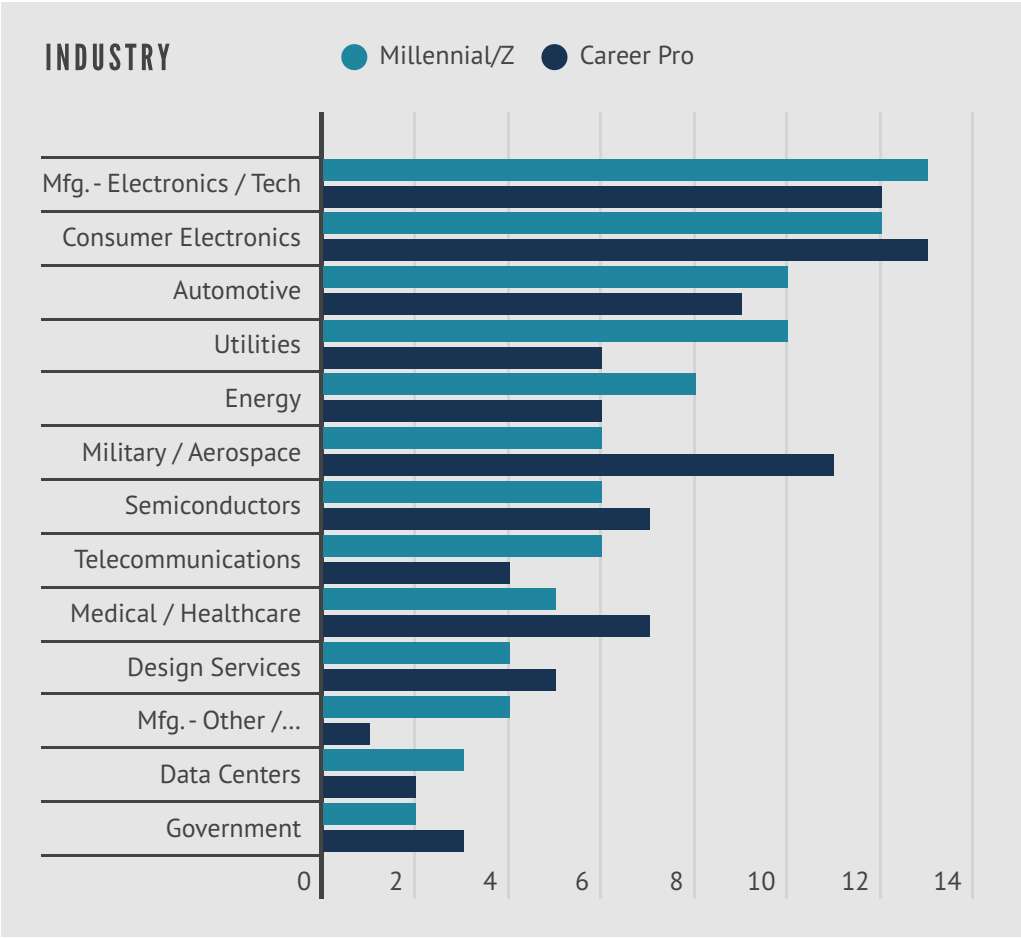
YEARS OF EXPERIENCE



REGION

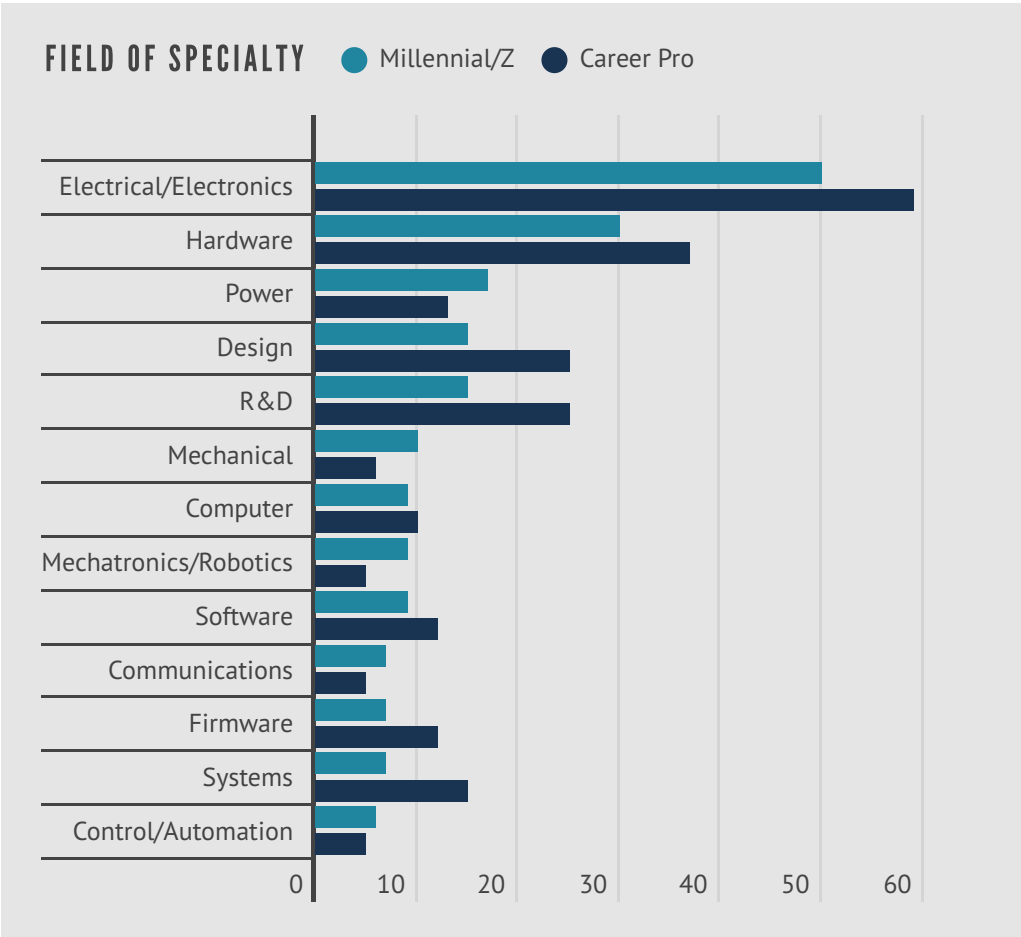


THE ENGINEER



Millennial/Z and Career Pro engineers span similar industries, but there are notable generational shifts. Millennial/Zs are more represented in Utilities, Energy, and Other Manufacturing sectors, suggesting **a move toward emerging and infrastructure-driven fields**. Career Pros, meanwhile, remain more concentrated in traditional strongholds like Military/Aerospace and Healthcare. This shift indicates that younger engineers are entering sectors driving **modernization, sustainability, and scale**.

THE ENGINEER



While Electrical/Electronics and Hardware Engineering remain **the most common** specialties across both groups, Career Pros dominate in **traditional** design and R&D roles, suggesting deep, specialized expertise built over decades. In contrast, Millennial/Z engineers show greater **diversity** across roles, with notable representation in Mechanical and Robotics. This indicates a broader, more interdisciplinary approach among younger engineers— reflecting modern engineering curricula and the convergence of hardware, software, and systems in emerging applications.

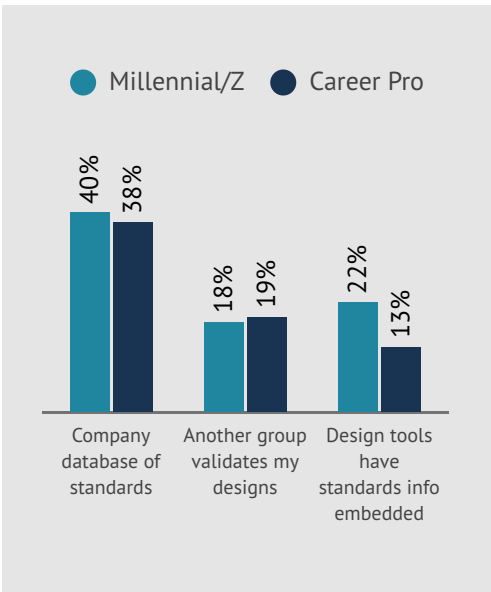
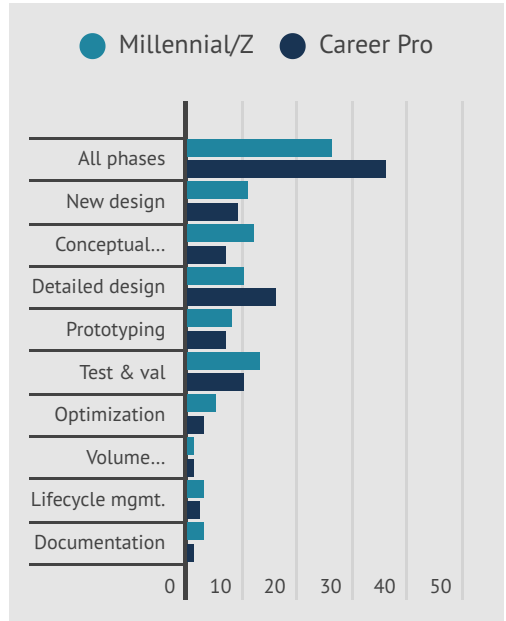
KEY TAKEAWAYS

- **Focus on the future.** Millennial/Z engineers are the largest generation in today's engineering workforce and they're increasingly influential in specifying components and making supplier decisions. They're most likely to be found in small to mid-sized companies where agility is high and long-term supplier relationships are still forming.
- **Serve cross-functional needs.** Millennial/Zs bring more interdisciplinary backgrounds, with broader representation in mechanical, mechatronics, and software roles. Marketing content and tools should support this hybrid reality, not just traditional specialties.
- **Modernize your digital strategy.** Career Pros may still dominate at the largest firms, but Millennial/Z engineers are less engaged by conventional outreach. They favor manufacturer websites over Google, digital-first content, and accessible, self-serve resources. If your digital presence isn't optimized for fast, technical answers, you're already behind.
- **Go global—and get local.** While North America leads in response volume, emerging regions like India and the Middle East/Africa now represent a sizable share of the engineering audience. Tailoring messaging and support to these markets can build early loyalty with fast-growing customer bases.
- **Target emerging industries.** Millennial/Zs are more likely to work in Utilities, Energy, and diverse manufacturing sectors, while Career Pros remain concentrated in Military/Aerospace and Healthcare. This generational shift suggests growing opportunity in sustainability-driven and infrastructure-related industries—sectors where the next wave of innovation (and purchasing power) is gaining steam.

DESIGN CYCLE

PHASE OF DESIGN CYCLE

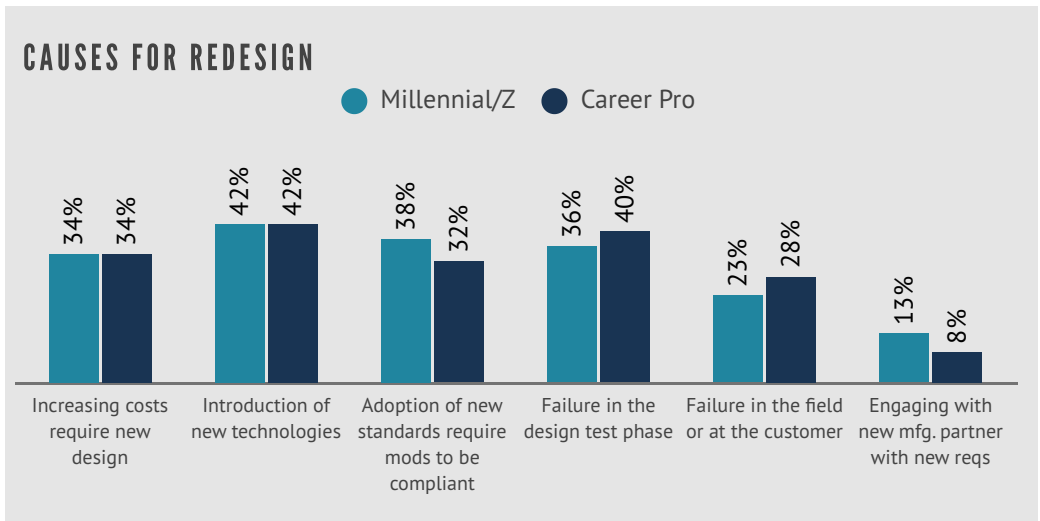
While both groups are active throughout the design process, Career Pros are significantly more likely to be involved in all phases of the cycle, reflecting their leadership and oversight roles. In contrast, Millennial/Z engineers show **higher engagement in early-stage activities** like conceptual design and test/validation, an indication that they're shaping design direction but rely more on collaboration as projects progress.



DESIGN COMPLIANCE

A company-provided standards database is the top resource for both groups, but Millennial/Zs are nearly **twice as likely** to rely on design tools with embedded standards (22% vs. 13%). Career Pros are more likely to report not working on compliance-related tasks or being less directly involved in addressing standards.

DESIGN CYCLE



Across both groups, the top causes for redesign are consistent: cost pressures, new technologies, and changing standards. However, Millennial/Zs are slightly **more driven by compliance shifts** and are also more likely to cite **needing to adapt designs** when engaging new manufacturing partners.

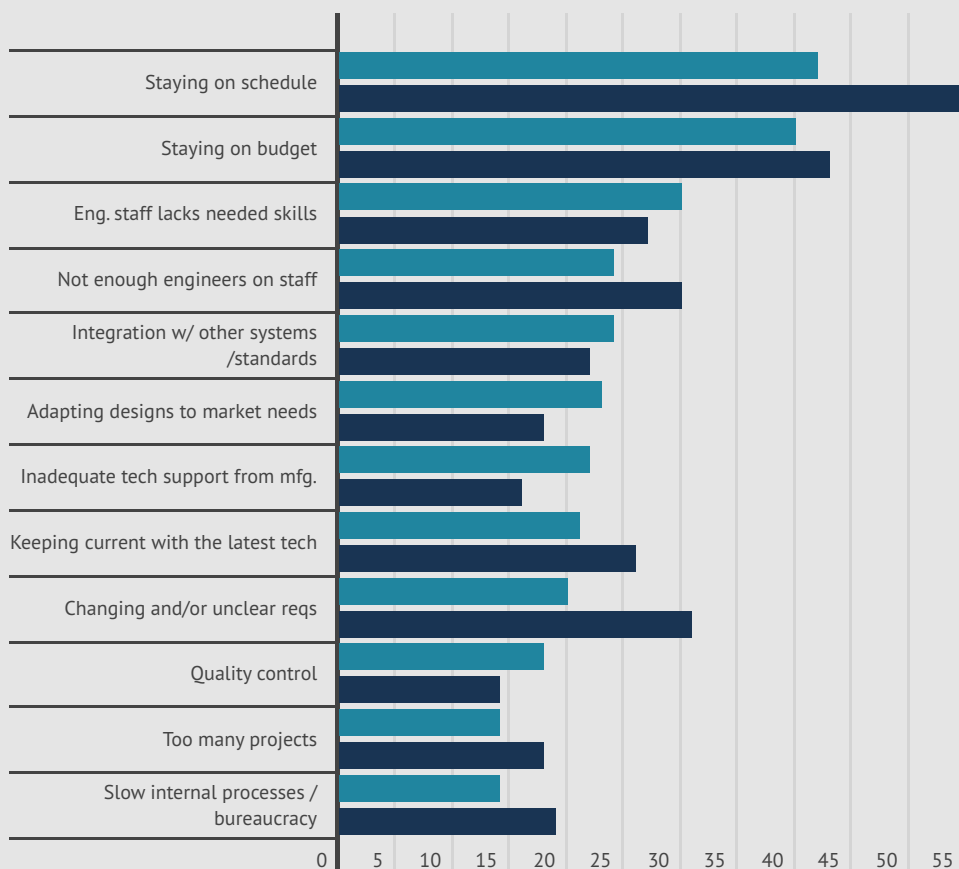
KEY TAKEAWAYS

- **Tailor content and tools to early-stage design.** Millennial and Gen Z engineers are most active in conceptualization, testing, and prototyping, so support them with educational content, evaluation kits, and simulation tools.
- **Emphasize adaptability and compliance.** Highlight how your solutions address evolving standards and reduce redesign risks, as Millennial and Gen Z engineers are more responsive to regulatory and manufacturing shifts.
- **Embed standards into design tools.** Younger engineers prefer platforms with built-in compliance support. Integrated, automation-friendly tools are more likely to earn their trust.

CHALLENGES

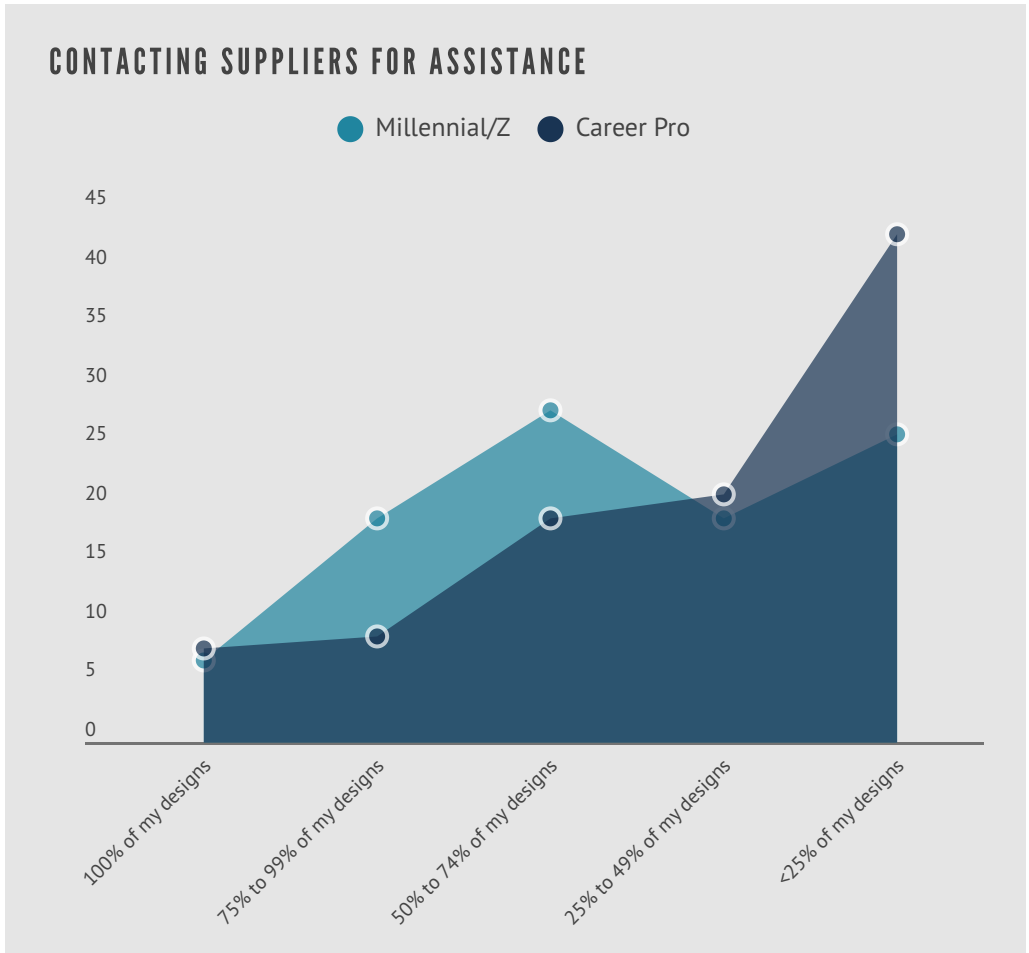
THE MOST PRESSING CHALLENGES

● Millennial/Z ● Career Pro



Career Pros are more burdened by schedule delays, shifting requirements, and internal bureaucracy—issues tied to legacy systems, larger organizations, or leadership roles. Millennials/Zs, by contrast, report higher frustration with inadequate manufacturer support and adapting to market needs, **signaling a desire for more responsive external partners and clearer product guidance.**

CHALLENGES

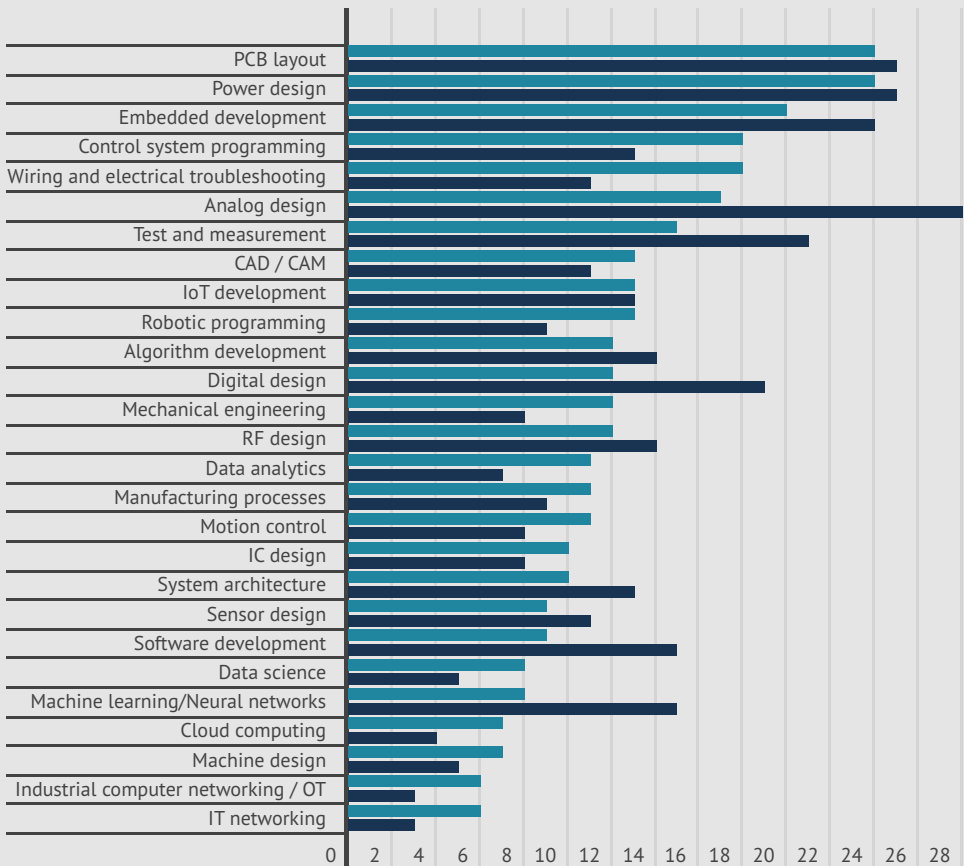


Millennial/Zs are **significantly more likely** than Career Pros to contact suppliers during the design process. 54% reach out on at least half of their designs, compared to just 36% of Career Pros. Meanwhile, 43% of Career Pros say they contact suppliers on less than a quarter of their projects, indicating a more self-reliant or experience-driven approach. This trend highlights that **Millennial/Zs are more open to supplier engagement**, particularly when navigating unfamiliar components, tools, or design challenges.

EMERGING INTERESTS

EXPERTISE TO PURSUE

● Millennial/Z ● Career Pro



Career Pros express stronger interest in traditional domains like analog design, T&M, and digital design. All areas that align with decades of hardware-centric experience. Millennials/Zs are leaning into **modern, systems-level competencies**: higher interest in control system programming and mechanical engineering indicates a cross-disciplinary approach. They're also more drawn to data analytics, cloud computing, and IT networking, suggesting **a growing appetite for software-integrated skill sets and connected systems**.

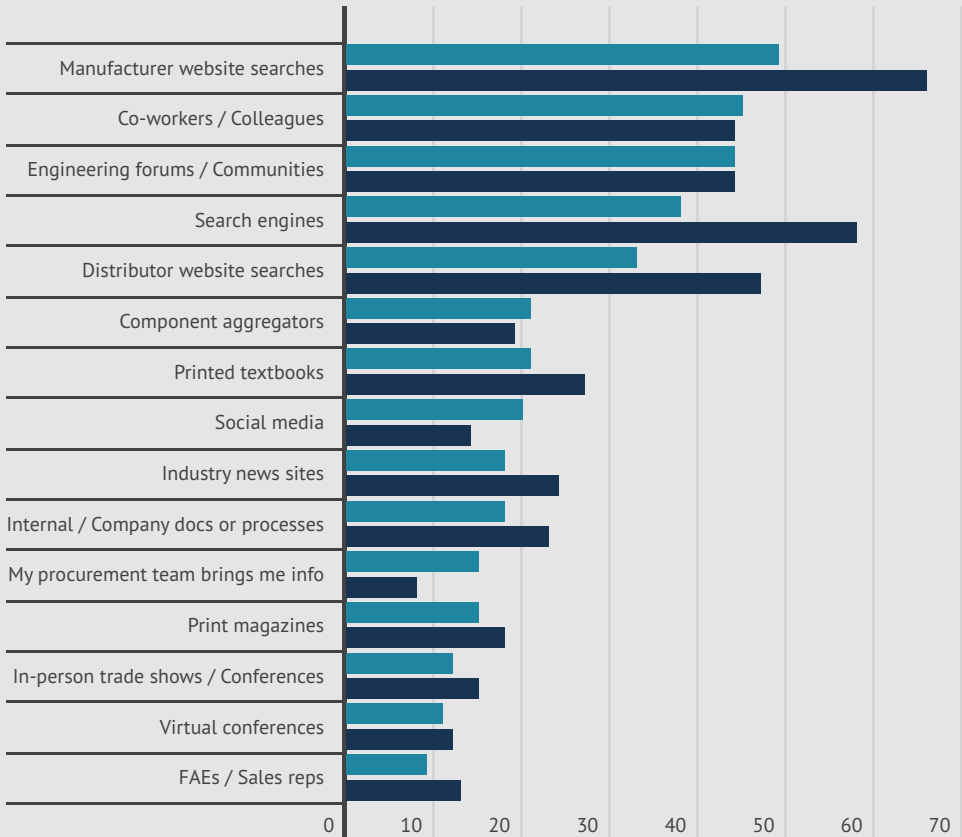
KEY TAKEAWAYS

- **Be a proactive partner, not just a provider.** Millennial/Zs are significantly more likely to contact suppliers during the design process. Over half engage suppliers on at least 50% of their projects. Make it easy for them to get support with clear contact options, fast response times, and knowledgeable technical guidance.
- **Deliver fast, accessible support.** Millennial/Zs report higher frustration with inadequate manufacturer support and adapting to changing market needs. Offering searchable knowledge bases, live chat, application notes, and example-driven content builds trust and reduces friction.
- **Invest in education around modern, integrated skill sets.** Millennial/Zs are eager to grow in areas like control systems, mechatronics, analytics, and cloud-based technologies. Position your brand as a learning partner with content that supports cross-functional, systems-level expertise.
- **Create resources that align with how they learn.** This generation prefers self-guided, digital-first learning. Provide short-form tutorials, interactive tools, and hands-on examples they can access on demand.
- **Help them succeed early to earn long-term loyalty.** These engineers are in formative career stages and open to supplier relationships. Brands that support them effectively now are well positioned to become trusted go-tos for years to come.

CONTENT

SOURCES OF INFO (UTILIZED DURING DESIGN PROCESS)

● Millennial/Z ● Career Pro

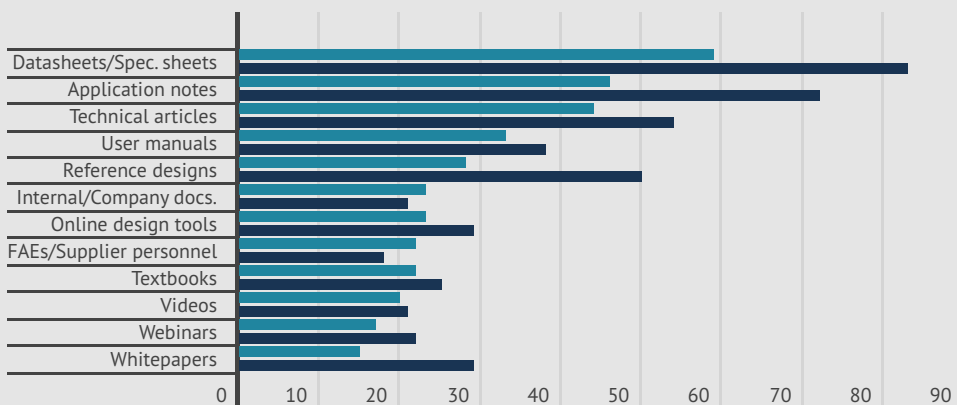


Millennial/Z engineers **rely less on traditional sources** and more on peer-driven and direct digital platforms during the design process. While manufacturer websites are still the top source, usage is 17 points lower among Millennial/Zs compared to Career Pros. Similarly, search engine use drops sharply, suggesting that Millennial/Zs are **bypassing general search** in favor of more direct or community-based routes. We also see lower engagement with traditional media, including printed textbooks and magazines—consistent with **digital-first habits**.

CONTENT

TYPES OF INFO

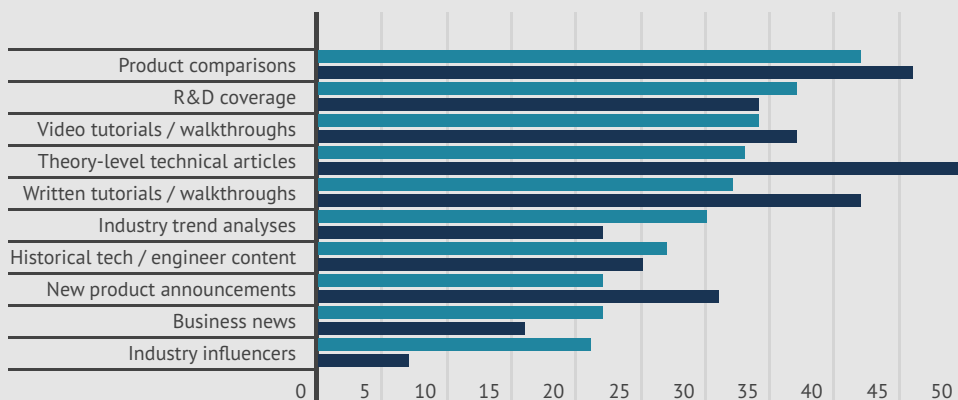
● Millennial/Z ● Career Pro



Career Pros rely more on traditional documentation, while Millennial/Z engineers use it less frequently but still see its value. Millennial/Z engineers **show greater interest in modern or interactive formats** such as influencer content or support from FAEs. Both groups want more practical resources, with product comparisons and tutorials ranking highest. However, Career Pros tend to prefer theory-heavy content, while Millennial/Z engineers are more drawn to **trend-driven and contemporary formats**.

DESIRED INFO

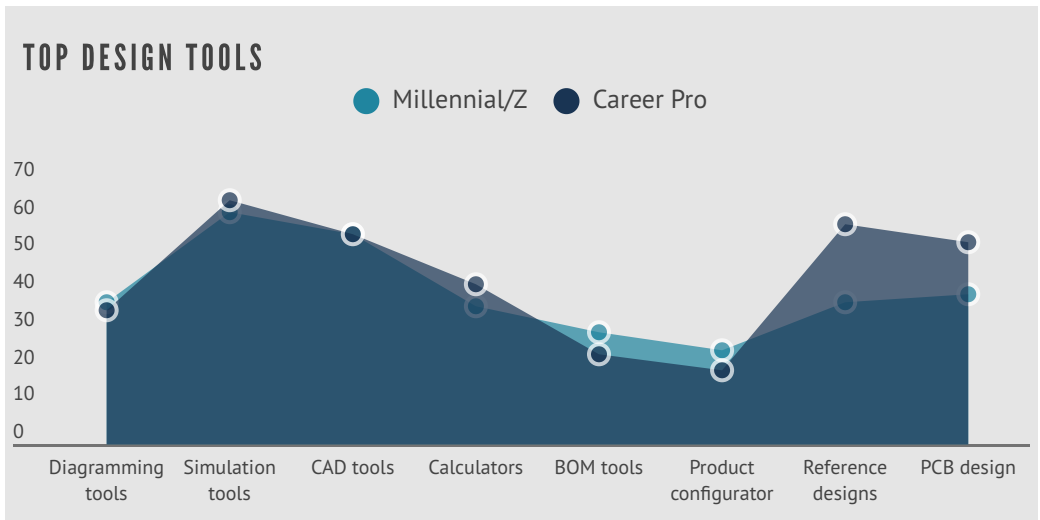
● Millennial/Z ● Career Pro



KEY TAKEAWAYS

- **Optimize manufacturer websites for direct access.** Millennial/Zs are moving away from general search engines and heading straight to manufacturer websites. Make sure your site is fast, searchable, and packed with technical content: datasheets, application notes, and reference materials must be easy to find and use.
- **Modernize your content strategy.** While foundational documentation still matters, Millennial/Zs are more likely to seek video tutorials, business news, and insights from trusted voices like influencers. A mix of deep technical content and engaging modern formats can expand your reach and relevance.
- **Create content that drives decisions.** Millennial/Zs want resources that help them evaluate and act: product comparisons, tutorials, and trend-based insights rank high on their wish list. Focus on content that answers real-world questions and shortens their path to a solution.
- **Enable collaboration and internal sharing.** Millennial/Zs often rely on co-workers, forums, and procurement teams during the design process. Ensure your content is accessible across channels: embeddable in forums, linkable in emails, and easily shared within teams.
- **Shift from passive publishing to active enablement.** Simply having content isn't enough. Build digital ecosystems that help Millennial/Z engineers find, apply, and share your information at the right stage of their design workflow.

DESIGN TOOLS



Simulation and CAD tools remain foundational across both generations. However, Career Pros continue to prioritize traditional assets like reference designs, while Millennial/Zs show **slightly greater interest in BOM tools and product configurators**, which support early design decisions and part selection. The “Other” responses (<2%) highlight the expanding scope of design workflows. Tools like Python interpreters and C++ for SBCs reflect **increased software integration**. Mentions of AI assistants and remote configuration tools suggest **growing interest in automated, cloud-based, and collaborative workflows**.

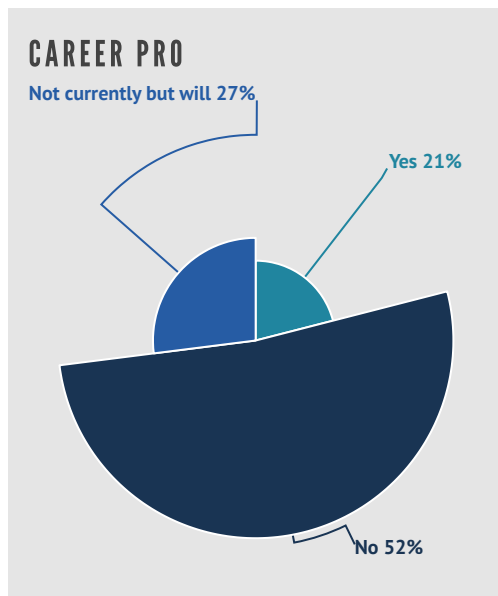
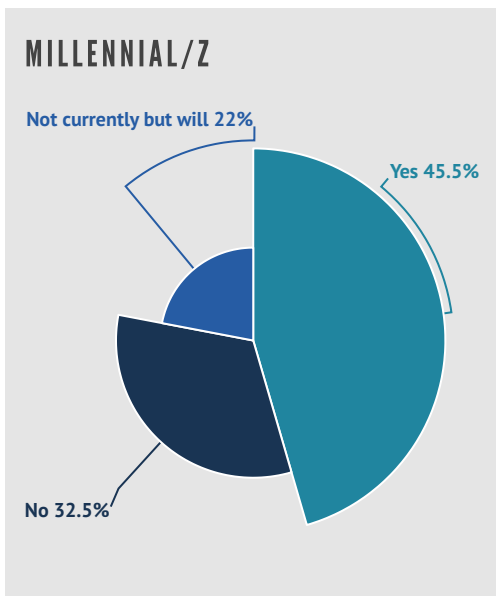
KEY TAKEAWAYS

- **Expand support for software-integrated workflows.** Millennial/Zs are increasingly blending hardware and software. Offer resources and tools that bridge traditional EDA with modern programming environments.
- **Prioritize early-stage design tools.** Millennial/Zs show more interest in tools that streamline upfront decisions. Providing intuitive, accessible tools at the start of the design process can boost engagement and influence supplier selection early.

ARTIFICIAL INTELLIGENCE

CURRENT USE OF AI

Artificial Intelligence is rapidly reshaping engineering workflows and Millennial/Z engineers **are leading the charge**. From conceptual design to code generation, younger professionals are integrating AI across more phases of the development process. While adoption is still growing among Career Pros, the divide **signals a generational shift** in how engineers approach efficiency, ideation, and design optimization. For marketers, understanding how (and where) engineers are using AI can **shape more relevant tools, content, and positioning strategies**.

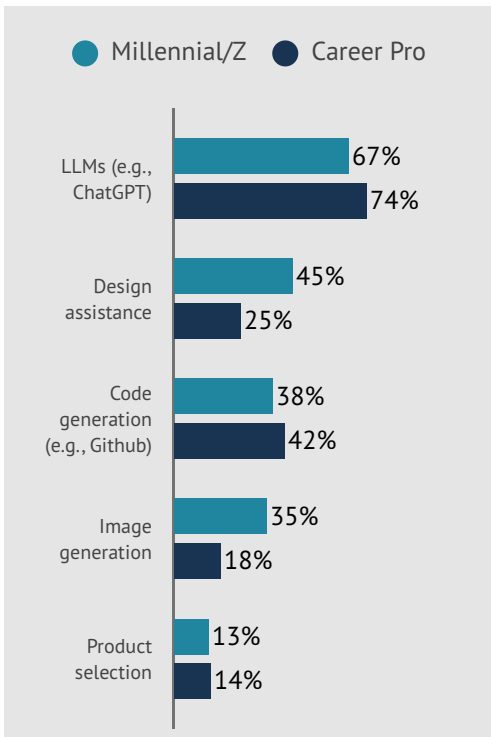
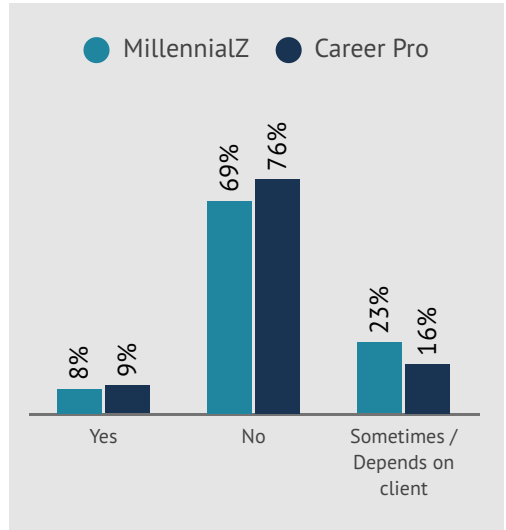


AI usage is **significantly higher among Millennial/Z engineers** (45% currently using AI, with another 22% planning to adopt). In contrast, only 21% of Career Pros currently use AI, though 27% plan to. This underscores a generational divide—**Millennial/Zs are not waiting**; they're already integrating AI into their design flow.

ARTIFICIAL INTELLIGENCE

BARRIERS TO ADOPTION

Most engineers are not restricted by company or client policies. 69% of Millennial/Zs and 76% of Career Pros say they are free to use AI tools, though some report conditional use depending on the project. This suggests that hesitation is more cultural or based on confidence, rather than formal policy barriers.



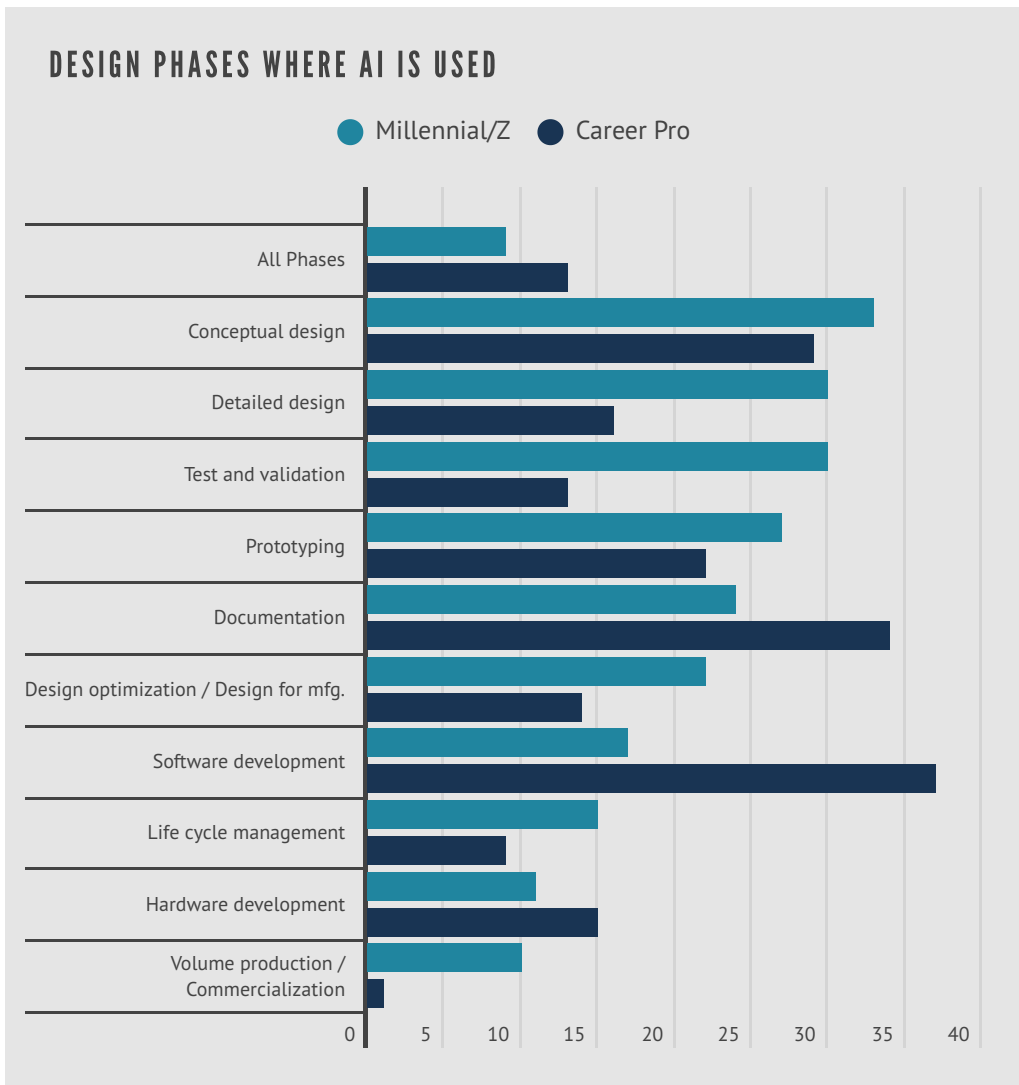
TYPES OF AI USED

Both groups rely heavily on LLMs like ChatGPT, but Millennial/Zs use a broader range of AI applications, including:

- Design assistance tools 45% vs. just 25% for Career Pros
- Image generation 35% vs. 18%
- Product selection and visualization, pointing to more creative and exploratory uses

This reflects a generational openness to experimental and visual tools, especially in early design and ideation.

ARTIFICIAL INTELLIGENCE



Millennial/Zs are applying AI across the design lifecycle, especially in **conceptual design, detailed design, test/validation, and prototyping**. Career Pros, on the other hand, are more concentrated in documentation and software development, reflecting their more traditional roles and comfort zones. Millennial/Zs are clearly experimenting with AI **earlier in the workflow** to support innovation and iteration.

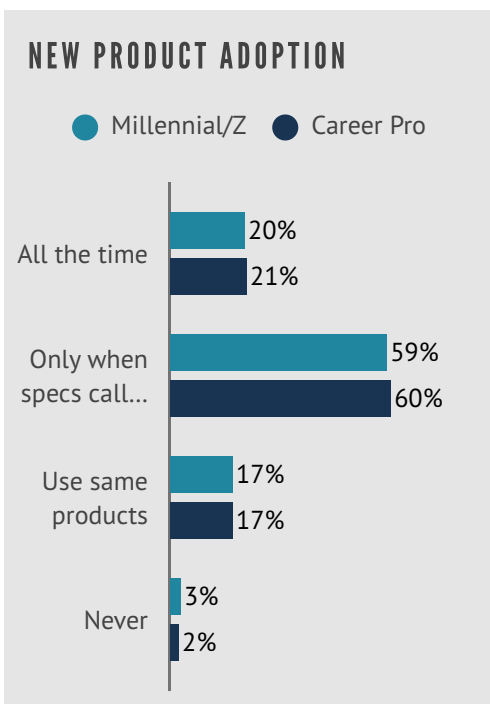
KEY TAKEAWAYS

- **Position your brand around innovation.** With nearly half of Millennial/Zs already using AI (and more planning to) vendors should showcase how their tools and content integrate or support AI workflows, especially in early-stage design.
- **Create AI-enabled resources tailored to design exploration.** Millennial/Zs are applying AI in conceptual, prototyping, and validation phases. Offer AI-assisted calculators, design wizards, or product selection tools that fit into this ideation-first mindset.
- **Support broader, experimental use cases.** Younger engineers are using AI for image generation, routing, placement, and system design. Content should reflect this trend toward creative engineering where visual tools and generative AI support innovation.
- **Remove friction and uncertainty.** While policy restrictions are minimal, many engineers, especially Career Pros, remain cautious. Provide clear use cases, success stories, and tool recommendations to build confidence and encourage responsible adoption.
- **Reinforce chatbot compatibility.** Since LLMs are the most widely used AI tool, ensure your documentation and product info is chatbot-friendly: structured, crawlable, and compatible with large language model queries.

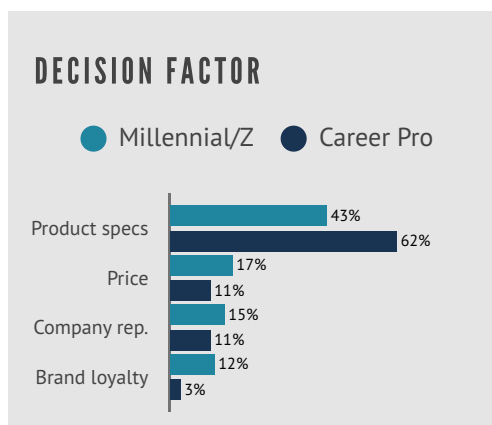
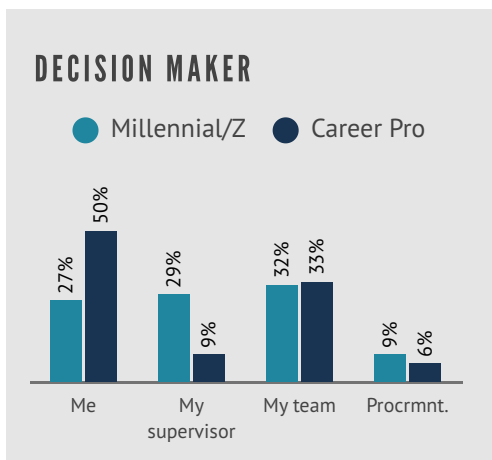
PURCHASING

Millennial/Zs are **less likely to be the sole product decision-makers**, instead relying more on supervisors and team-based decisions. This reflects both career stage and a more collaborative design culture.

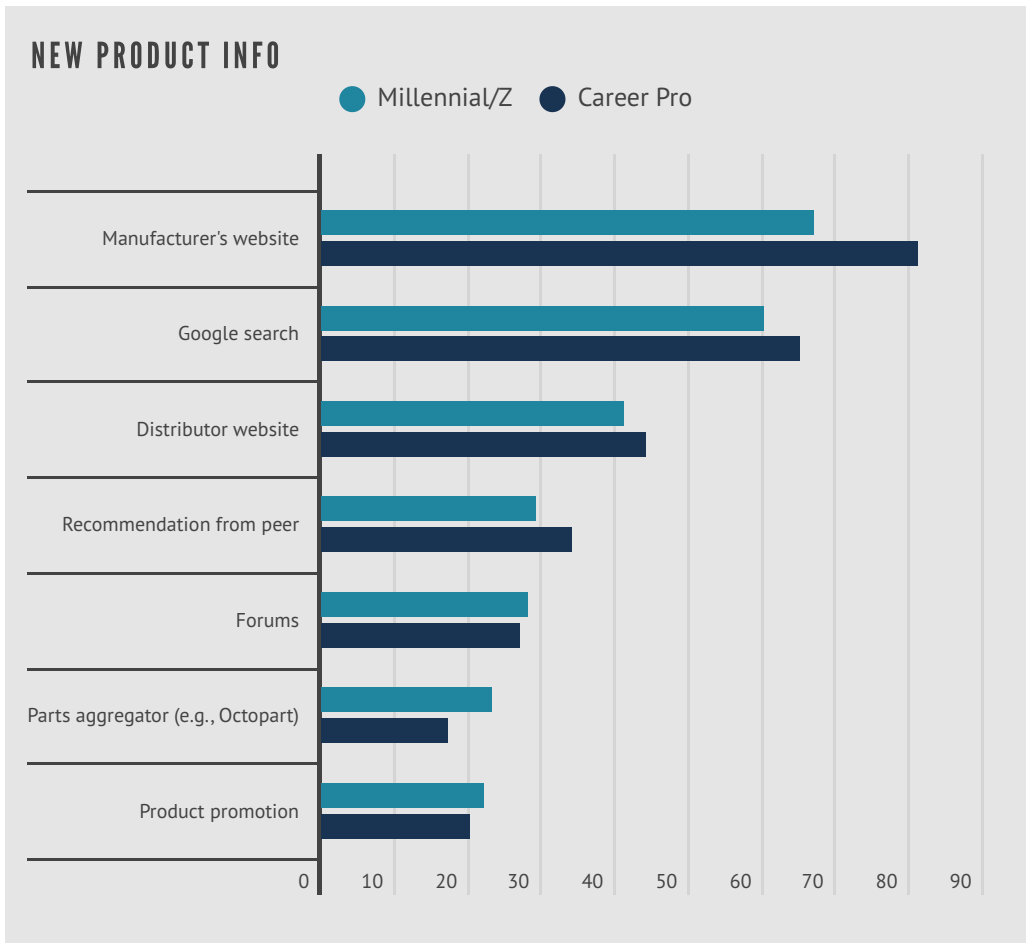
When it comes to adopting new products, both groups behave similarly, **only using new components when required**. This suggests spec requirements and organizational standards **drive most adoption decisions**.



However, Millennial/Zs weigh different factors when selecting new products. While Career Pros prioritize specs, Millennial/Zs are **more influenced by price, brand reputation, and company image**, and are 4x more likely to cite brand loyalty—a clear signal that **branding has greater sway** with younger engineers.



PURCHASING

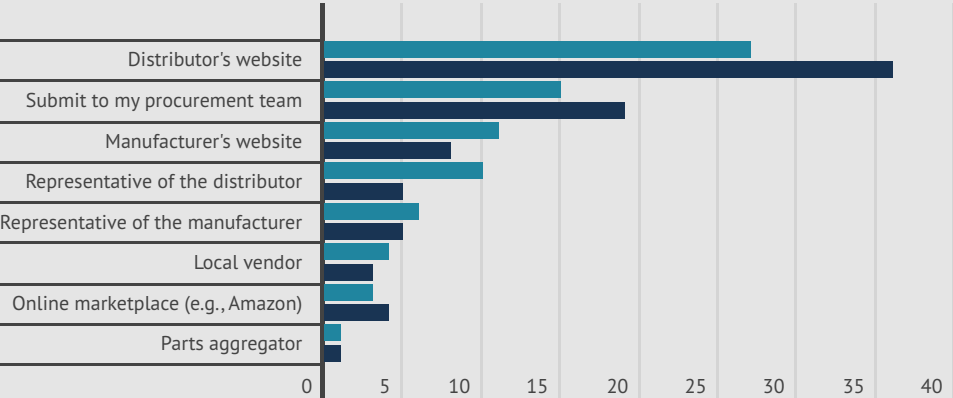


Both Millennial/Zs and Career Pros **rely heavily on manufacturer websites** and Google search when researching new components, but Career Pros are more likely to go directly to the source. Millennial/Zs are slightly more likely to use parts aggregators and product promotions, suggesting **a more exploratory and open-ended research style**. Peer recommendations and forums play a modest but consistent role across both groups, reinforcing the importance of **trusted, community-based insights in the decision process**.

PURCHASING

PURCHASING METHODS

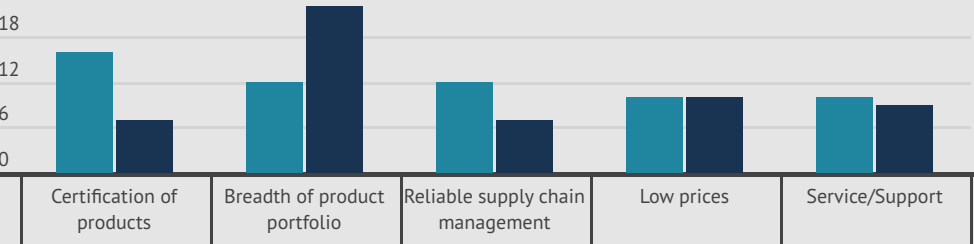
● Millennial/Z ● Career Pro



While distributor websites are the top purchasing method for both groups, Millennial/Z engineers use them less frequently than Career Pros. Younger engineers are slightly more likely to purchase through manufacturer websites or distributor reps, suggesting a somewhat more diversified approach. When choosing a distributor, they **prioritize product authenticity**, signaling a desire for trust, traceability, and confidence in every transaction.

DISTRIBUTOR FACTORS

● Millennial/Z ● Career Pro



KEY TAKEAWAYS

- **Be everywhere Millennial/Zs shop.** Millennial and Gen Z engineers are less reliant on distributor websites than Career Pros and show a tendency to purchase through manufacturer websites, or distributor reps. To earn their business, suppliers should ensure a consistent and frictionless experience across all purchasing channels.
- **Earn trust through transparency.** Millennial/Zs care deeply about certified components, more than they care about a vast catalog. Emphasize anti-counterfeiting measures, traceability, and dependability to build confidence and long-term loyalty.
- **Invest in brand relationships, not just transactions.** Millennial/Zs are more swayed by brand loyalty and company reputation than their senior counterparts. Position your brand as a dependable, forward-thinking partner, not just a vendor.
- **Capture attention where discovery begins.** Millennial/Zs are active on Google, forums, and aggregators, and respond to targeted promotions. Strengthen visibility across all research platforms to meet them early in the decision journey.
- **Support collaborative decision-making.** Millennial/Z engineers often rely on input from supervisors, teammates, or procurement teams. Equip them with clear technical justifications, value stories, and trusted content to help drive internal alignment.

RECOMMENDATIONS

Millennial/Z engineers are no longer the next generation—they're the **now** generation. They're designing products, influencing purchasing decisions, and increasingly shaping the future of the electronics industry. Reaching and retaining this audience requires more than traditional tactics. Below are five core recommendations to help marketers adapt and engage effectively.

Show Up Where They Are—Not Just Where You've Been

Millennial/Zs use a wider mix of research and purchasing channels, from Google and forums to manufacturer websites and internal procurement teams. Ensure your content, tools, and brand messaging are search-optimized, shareable, and present across all relevant platforms.

Build Trust Through Transparency and Support

This generation prioritizes authenticity, supplier reliability, and certification when choosing parts and partners. They are also more likely to seek supplier assistance during the design process. Offer clear documentation, responsive support, and traceable supply chains to build confidence and long-term loyalty.

Modernize Your Content Strategy

Millennial/Zs want practical, self-guided learning: video tutorials, product comparisons, and interactive walkthroughs top their content wish list. Deliver content that's technically rich but presented in modern, engaging formats, and accessible at the exact moment of need.

Empower the Entire Design Team

Most Millennial/Z engineers aren't making decisions alone. They collaborate with teams and procurement to drive their choices. Equip them with compelling technical resources, brand messaging, and use-case stories that help them advocate internally.

Embrace the Future of Engineering Workflows

Millennial/Zs are already integrating AI and cross-disciplinary skills into their processes, using tools for conceptual design, code generation, prototyping, and more. Stay relevant by offering AI-integrated tools, software-enabled solutions, and educational resources that reflect where design work is heading.

Winning with Millennial/Z engineers requires adaptability. By aligning your marketing strategy with their behaviors, expectations, and values, you'll not only capture their attention today—but earn their loyalty for decades to come.

