



COLLISIONS

Foreword by Steven González

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CONTENTS

- 6 FOREWORD
Steven González
- 8 PERSPECTIVE
Lauri Goodman Lampson
- 10 CHEMISTRY OF PEOPLE
- 20 MINDS COLLIDE
- 114 TEAMS HUM
- 180 COLLISIONS NETWORK
- 238 WORLDS COLLIDE

- 243 Acknowledgments
- 244 Photography Credits

Before the next big ideas
the eureka moments
the intuitive perceptions
the sudden insights
when all the pieces fit together
there are collisions.

Here's to the hearts and minds
shaping our emerging nature of work.



FOREWORD

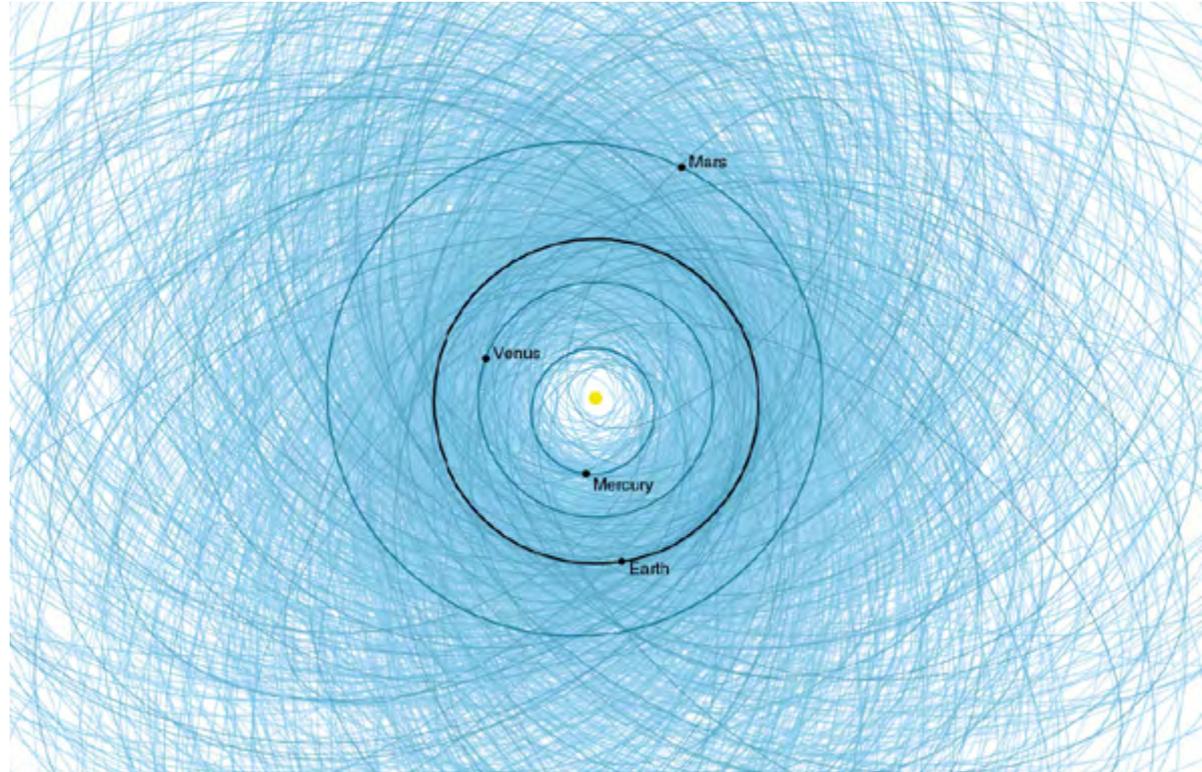
Steven González

Associate Manager for the Strategic Partnership Office at NASA Johnson Space Center, Houston, Texas.



In space we take great care to avoid collisions with orbiting debris but on Earth it is a very different story. At the Johnson Space Center we are intentional in creating workplace environments where great ideas will emerge from the everyday collisions among our engineers and scientists.

We have transformed our open spaces to become areas for connection and collaboration. Taking a page from the start-up community's playbook for co-working spaces, we created "1958" a flexible, open workspace where engineers can connect and bounce ideas off one another. Our community is now encouraged to get out of their offices and meet in a more relaxed and creative environment—one that fosters the kind of thought and discovery required for human space exploration. It is here that innovation flourishes.



The solutions we seek are complex and require a multi-discipline perspective. Space exploration challenges us to continually reach beyond conventional thinking, and every day we see how our workplace actively supports us now more than ever before. New perspectives and discoveries have emerged for the mission of Mars exploration because our environment fosters these meaningful collisions between different disciplines.

Pushing the forefront of science and technology is essential to our mission as we extend human presence in space. When our engineers and scientists are able to hold what may initially look like two unrelated perspectives at the same time, true creativity and innovation emerge. Our working environment is rich with these potential collisions. It amplifies our abilities to connect, iterate, and develop solutions that take us beyond what was previously possible. Our workplace, and the collisions that take place within it, contribute to our mission success.

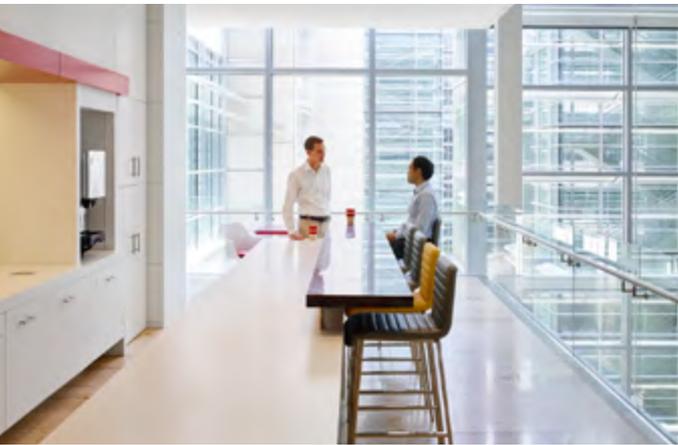
ABOVE: Plot of orbits of known potentially hazardous asteroids

OPPOSITE: NASA's Curiosity rover, self-portrait at "Mojave" Site, Mount Sharp, Mars

PERSPECTIVE

Lauri Goodman Lampson

President, PDR



In everyday conversation, collisions are typically accidents; forces of destruction; something you don't want to happen. Ever. Scientific collisions are far more neutral. They imply nothing about the magnitude of the force or impact—merely that, for a short duration, interaction between two or more bodies takes place.

In the world of workplace design, PDR defined a new type of collision—unplanned, yet beneficial—when two or more people interact and the result is transformative. Like its more common usage, a workplace collision can be loud and impactful. Like its scientific usage, it can also be quiet and resonant. Workplace collisions produce sudden aha moments and inform our actions going forward.



PDR believes collisions between knowledge workers are what every business should want, but achieving them requires thoughtful planning and precise execution. A dynamic workplace is anything but accidental. We take great care to ensure the right types of knowledge owners interact in the most constructive ways.

PDR has been in the collisions business for more than 38 years. Our workplace strategists determine the types of interaction a business needs to attain the next level of innovation. Our designers and architects use that knowledge to create performative workplaces—platforms that encourage desired actions and behaviors, setting the stage for collisions.

From social interactions between individuals, to team dynamism, to the living fabric of an enterprise, PDR offers businesses the opportunity to transform the way they work. Our designs spark not just collaboration, but the innovation that occurs when people collide.

CHEMISTRY OF PEOPLE



Collisions in the world of workplace are inspired by the tenets of chemistry, and specifically, collision theory—how and why chemical reactions occur between molecules.



PDR's research and design focuses on the “how” and “why” of human interaction. For us, collisions happen between people, not molecules. Our collisions traffic in idea exchange, culture building, and shifting perceptions; not in forming new chemical compounds.

Collision theory also tells us that as the quantity of collisions taking place increases, so too does the chance of a successful reaction in which new bonds between molecules are formed. The same is true in a humming workplace. Think of every point of contact you have with other people throughout the course of a workday. Every one of those interactions, whether directly related to your work, or of a social nature, is a collision. Increasing the quantity and quality of those collisions, both inside and outside of an organization, improves performance. That's where we come in.



PDR is a catalyst for successful workplace collisions. Just as chemical reactions are planned and executed in controlled laboratory settings, PDR uses specific tools and methodologies to increase the volume of communication within the workplace. Strategy and design are beneficial agitators of workplace collisions; productivity and growth are success measures. First, we gain an understanding of the business, then we shape the space, which, in turn, shapes behavior. Individuals, teams, and organizations collide within a strategically designed context.

PDR's strategists identify and articulate the various challenges businesses face. Is the goal to amplify innovation in product development by getting the marketing team to interact more with the engineers? Or to improve knowledge transfer between generations of workers? Or is it both? Our designers program and design the workplace in ways that contribute to the solutions, or better, transform them into opportunities.

Thinking about the workplace in these terms is an important shift from a mindset of efficiency and cost per square foot to that of performance and growth. The workplace becomes more than real estate—it is a communication tool. PDR's portfolio demonstrates the dynamism and elegance of successful, strategic workplaces. The spaces are more than the sum of ~~the~~ their parts; more than program and architecture, more than furniture and technology, more than material, or color, or light. The spaces are stages for human interaction. They are platforms for collisions.





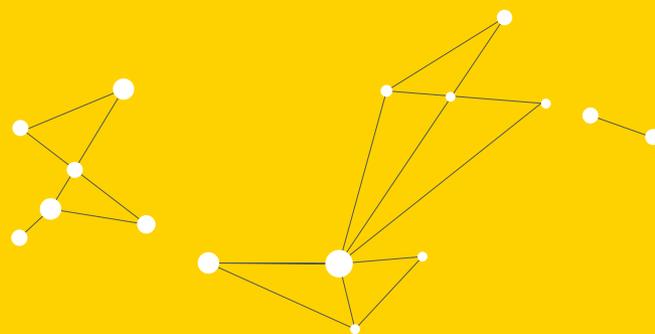








MINDS COLLIDE



PDR’s “inside out” philosophy is human-centric. Success starts at the scale of the individual.

We address the sitter before the chair; the activities before the floor; the objectives before the office. Collisions begin from the inside out as well. They are primarily human-scale phenomena. We focus on individual, one-on-one interactions, then shift perspective to team dynamism, to the enterprise network, and, finally, beyond the company into the global market. Disruptive ideas originate with the collisions between individuals, and the energy they spark resonates outward.

Collision theory tells us that successful collisions produce reactions. They have enough power, or activation energy, at the moment of impact to break preexisting bonds and form all new bonds. Successful workplace collisions enable transformation. More than collaboration as we know it, collisions take two different ideas and bring them together in a moment of impact to create innovation—something that did not exist before.

Workplace collisions are social in nature, but their reactions have powerful professional impact. Aside from generating ideas, impromptu meetings build culture, encourage mentorship, forge respect between disciplines, and accelerate speed of trust. Serendipitous encounters shape new opportunities and spark innovation. Whether formal or informal, encounters nurture the singular energy of the individual and their critical interaction with colleagues. Collisions set the stage for the success of teams and organizations, improving performance regardless of the actual content of the interaction.



PDR catalyzes successful collisions at the person-to-person scale. Design gives form to strategy and connects goals and aspirations to our psyches and senses, and the elements of design—geometry volume, light, and sound; surface, texture, color, and feel; motion or aggregation, flexibility or permanence; the integration of technology—shape human experience within a workplace. They make spaces feel authentic and appropriate. They influence the energy people bring to their work and encourage collaborative productive behavior.

One-on-one collisions require places to connect people through small-scale encounters; spaces where interactions encourage exploration. Individuals walk from their desks to take a break or reach a destination and collide with someone in the process. Amenity spaces, connected stairways, open circulation, and other public spaces within the workplace encourage people to take their work for a walk. Movement enlivens the workplace and increases the chances for successful collisions to occur.





Different thinking, different working.

E2.1C.466

Studio
B

PUSH





From me to we: one-on-one connections lead to team success.



Meaningful contributions happen anywhere.





LNG Portfolio

Energy and Markets

Count

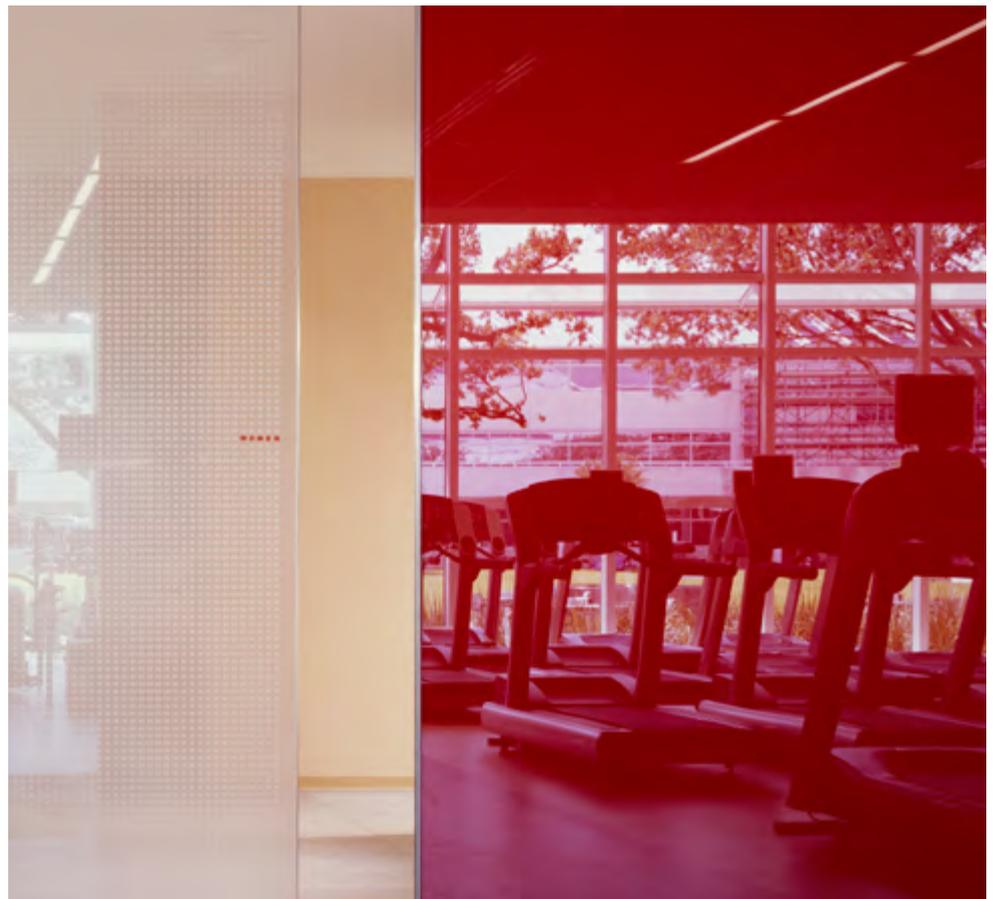


Increase visibility, easy access, and timely connections.





Work can happen anywhere.
Good habits can too.





It's not all about the coffee.
Break areas are natural settings
for knowledge sharing and
culture building.









Individual work is not always
the same as working alone.





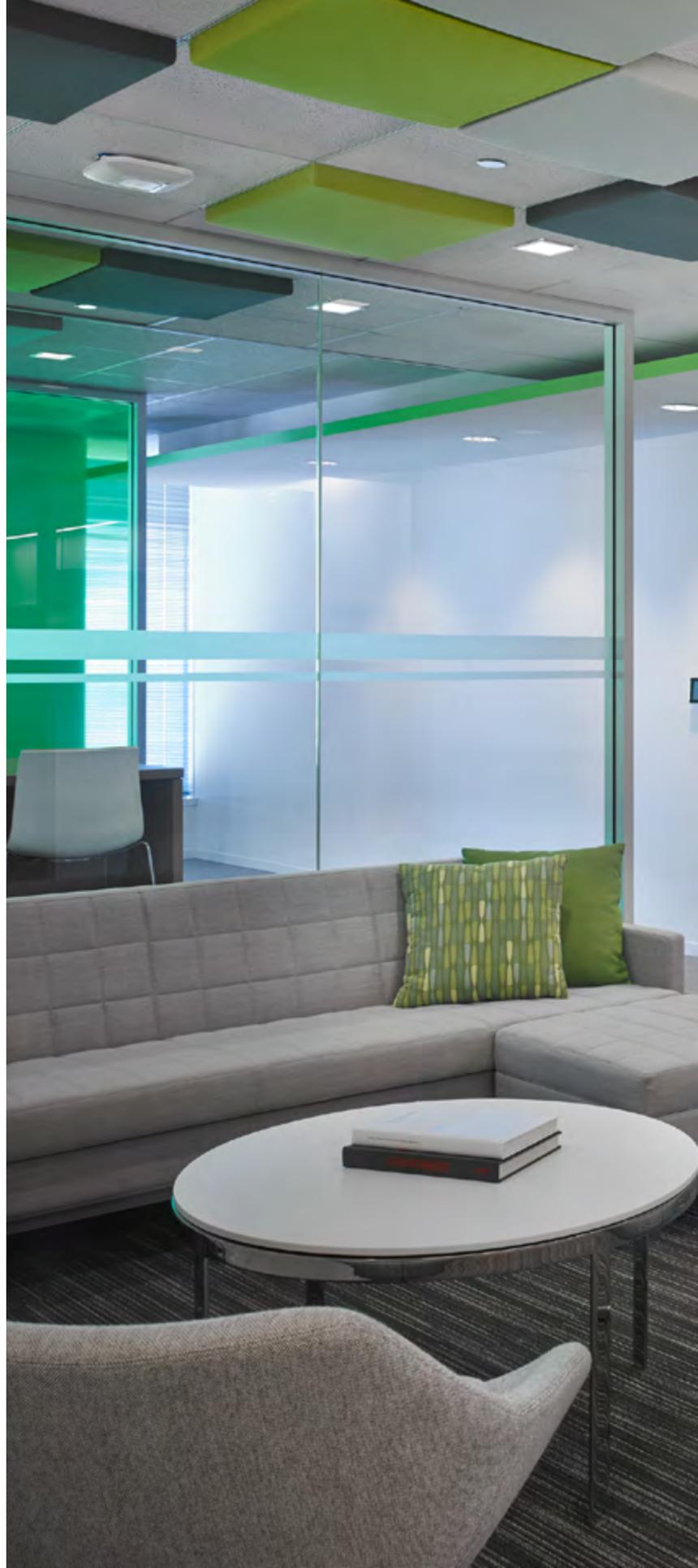
Material choices
affect our senses;
our senses affect
our behavior.



Work goes beyond workplace.
Work is anywhere you are.



Open, flexible spaces encourage unexpected connections.

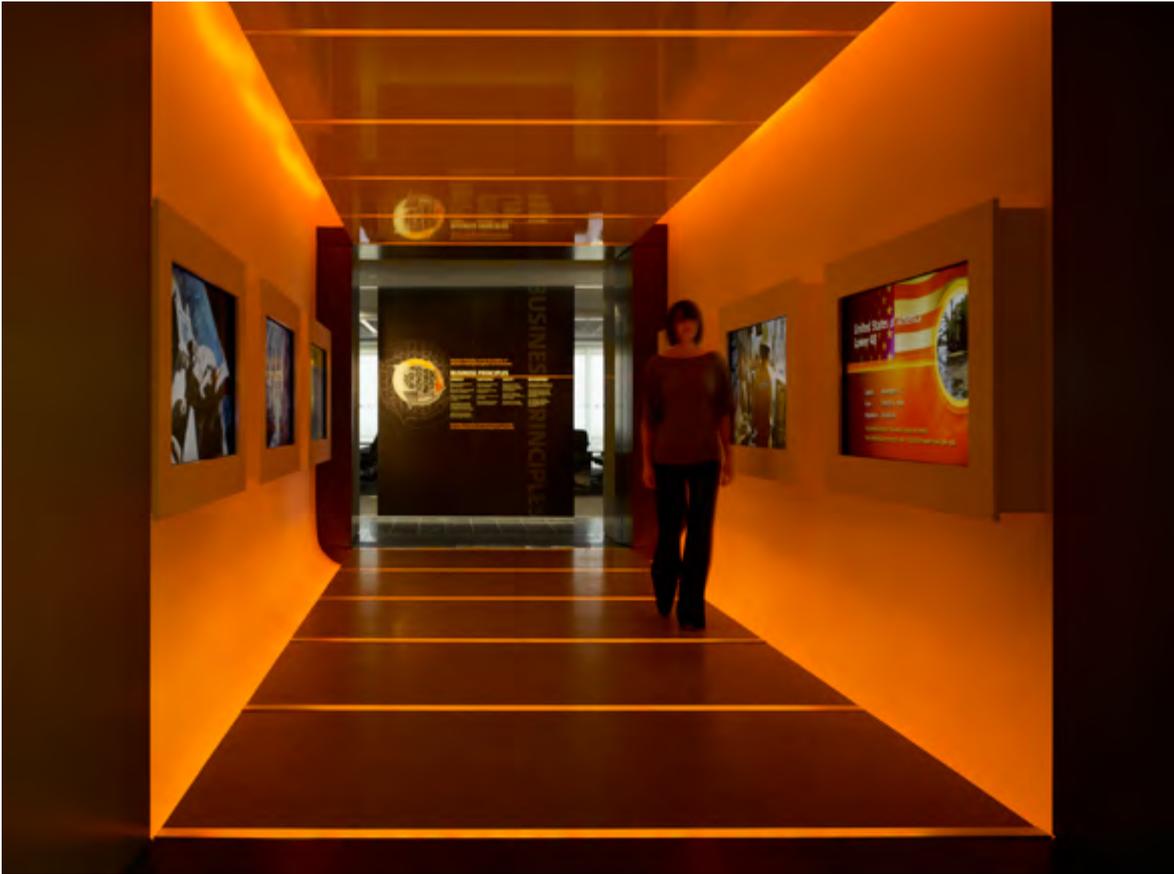








Connect people with purpose.



Bursts of color enliven the workplace.



Energy between individuals creates a spark that resonates outward.









Environments encourage a rich blend of contemplative and collaborative work.





JUICE





“The place has an energy about it.

I'm surprised at how quickly this has become the norm; you don't remember working in other ways. I think that's how most other people are experiencing the transition from old to new.”

“I have seen so many situations where other employees have had the same experience—running into one another at the coffee machine or on the atrium stair and then glancing around to identify a spot where they can sit down and continue their conversation.

These impromptu, serendipitous meetings make our new environment a better place to work.”



JUICE



COFFEE
HANDMADE BLEND
ESPRESSO
CAPPUCCINO
LATTE
MILK SHAKE
HOT CHOCOLATE
HOT SPICE BLEND

BONUS
Full serving size
of organic apple
juice with every
coffee purchase.
Half price when
you buy a second
coffee.

QUICK SWEETS
Lemon-lime iced tea
with peach slices and
a cucumber swirl dip.







A workplace full of potential collisions is also brimming with potential innovation.

Private offices offer quiet time for concentrated work and allow for connection and collaboration.







take ten café



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Workplace environments reflect the essence of a company.









Create levels of connections across and through the workplace.

Tailored spaces
create customized
experiences.



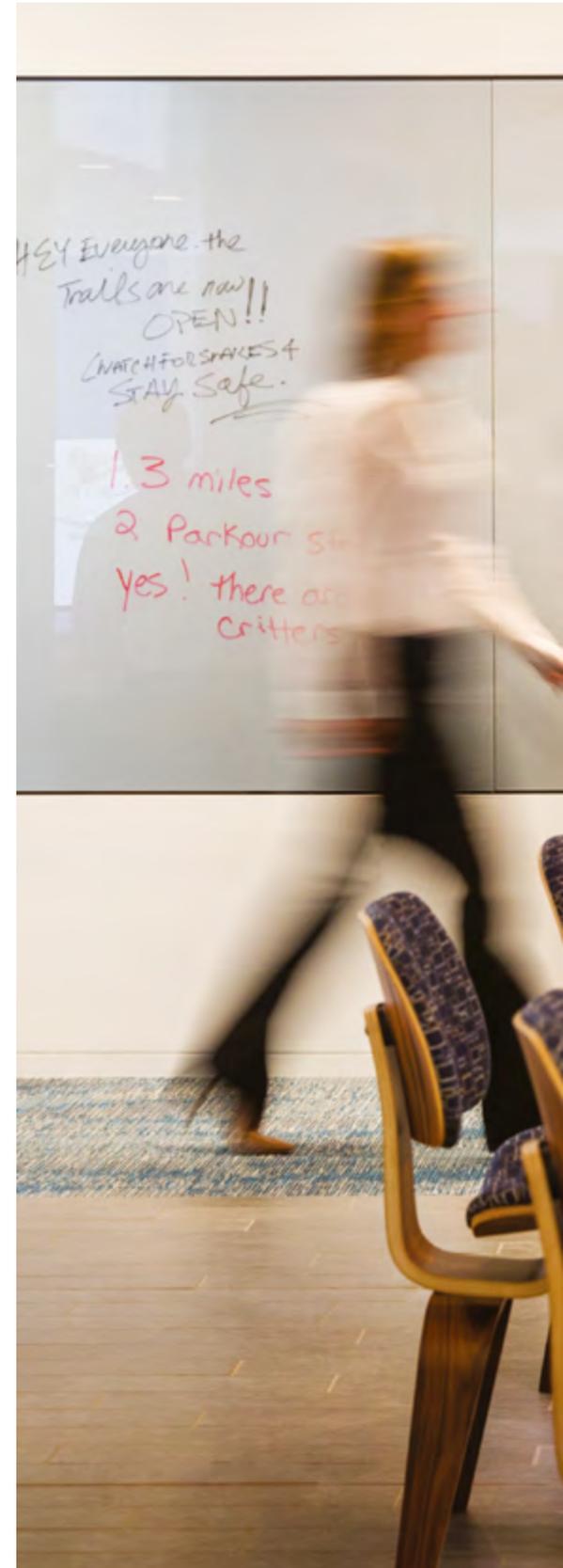






Let the environment fit the task.

Extended dialogue: these walls can talk.



How do we solve this?

- new design?
- rework process?
- help from AOC?
or other partners?
- delay in opening?
- OTHER CONSIDERATIONS?

✓ w/ Chuck
- possible option
in SWPC

Barry has contacts
✓ w/ P+GA (Lynn)

SCF

GAS

— TAKE TO
ROD CONDITIONS
(CON + GAS)

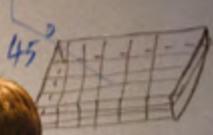
$$GDR = \frac{1845}{1} \times \frac{1}{5.6144} = 32$$

FLUIDS TO GO TO RES

$$K = 0.82 + 0.00018 \times 324$$

= ?

$$1.07 =$$



MECHANIS

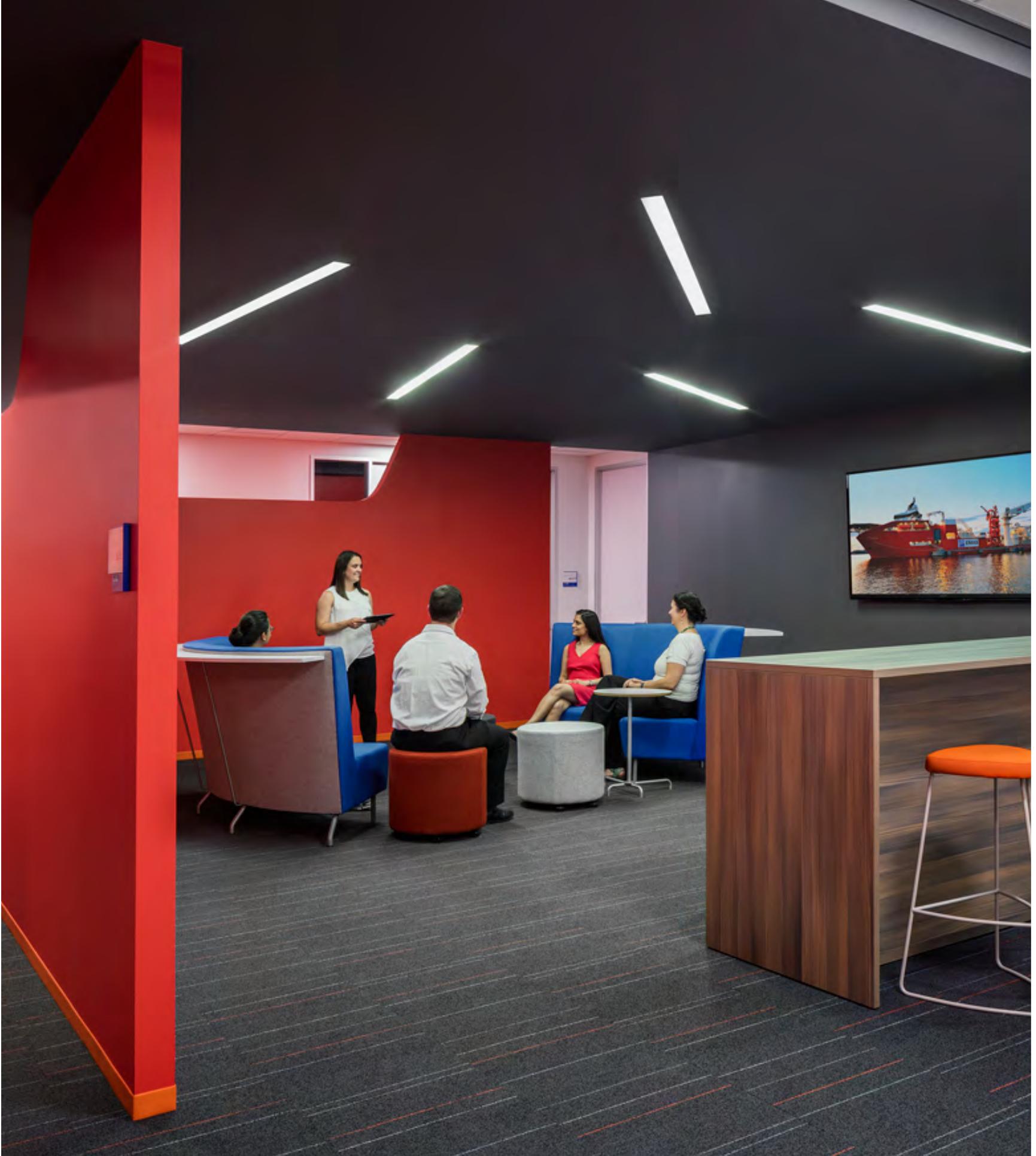
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FORCES
RECOVER
METROG
VERTICAL
NEGLECT
METROG
DISCOUNT
MATCH AN





Transparent spaces extend networks.

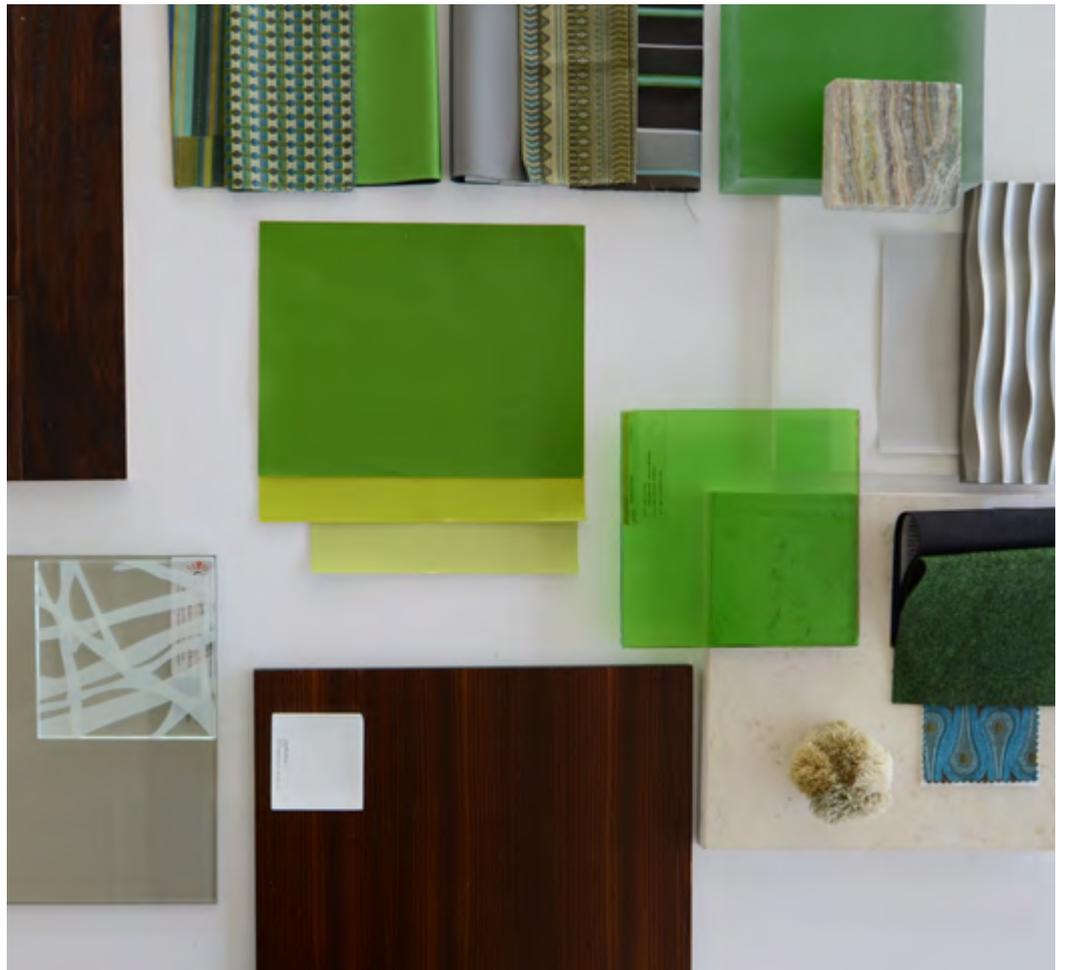








Vibrant spaces spark conversation.







“I feel more connected in our new workplace.

It was great to get to know our leaders in a casual setting, without the pressure of a presentation or meeting.”

“The space is motivating.

It's so open and easy to just walk down the hallway and see someone without having to knock on an office door. There's a lot of natural light in the office and I stand to work most of my day; it gives me a little more energy every day.”









Refreshment hubs draw people in to refuel and connect.

13

13

E









Meaningful contributions
happen everywhere.











Broaden perspectives through
interaction and exchange.











Attention to detail—from program to material—energizes the workplace.











Gone are the days of work occurring only in spaces designated as “the office.”





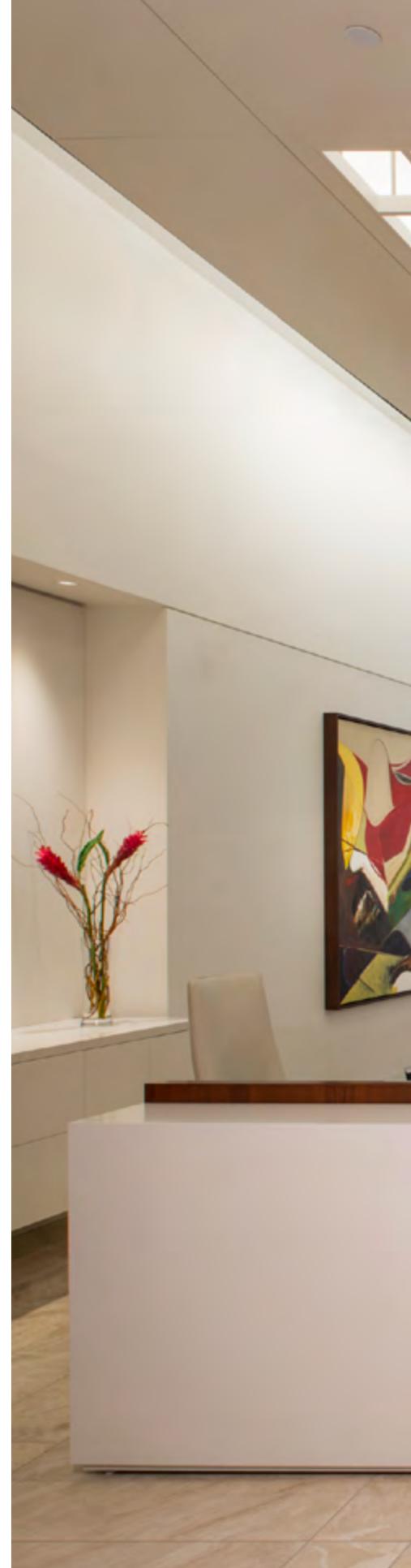




Design choices can
spark connections.



A welcoming environment reflects the warmth of the enterprise and its people.









Sharing information and ideas is a simple click away.

TEAMS HUM



Workplace collisions are crucial to team dynamics.

The mysterious “it factor” we see in high-performance teams is influenced by patterns of communication and not necessarily by the content of those conversations. How we communicate is more important than what we communicate. Teams that are energized from within—that are more engaged with each other on both social and formal levels—are also more productive and committed.

When it comes to creating successful new bonds, collision theory favors contact over content. When particles collide, only a small percentage result in a noticeable or significant chemical change. To increase the occurrence of successful collisions, chemists increase the quantity of collisions taking place by introducing a catalyst—typically by applying heat. Rather than attempting to shape how the reactant molecules make contact, they focus on simply making more collisions happen.

PDR’s workplace designs also favor contact over content, and our most significant project to date is a prime example. The ExxonMobil Houston Campus, a workplace for 10,000 people, was designed and built to enable an incredible 3.75 million collisions per hour. Focused on supporting teams of knowledge workers as they pioneer the future of energy, the workplace provides an opportunity for transformational thought and action to occur.



Team collisions require platforms for iteration, debate, production, and evaluation. Spaces built to support teamwork draw individuals together towards a shared purpose. They may be open extensions of the workplace and porous to passers-by; completely insular “war rooms” where focus is intense and confidentiality is key; or somewhere in-between. Offering a variety of team spaces in the workplace with built-in flexibility ensures teams can perform at peak, even under constantly changing conditions.

Managers know that aggregating individuals into teams creates beneficial concentrations of knowledge and skill. Strengthening team-level patterns of communication ensures individual talents can be identified, teamed, and assigned to specific tasks; collisions within teams spark idea exchange for problem solving; and functioning as a team is also an act of reciprocity. Sharing knowledge leads to stronger relationships and mutual understanding—crucial building blocks of a healthy workplace culture.

Similar to one-on-one collisions, team collisions occur across a spectrum: formal and informal, internal and exploratory, project focused, and social. The most important factor for any high-performance team is that collisions happen often.





Broaden perspectives through
interaction and exchange.



W2B.194



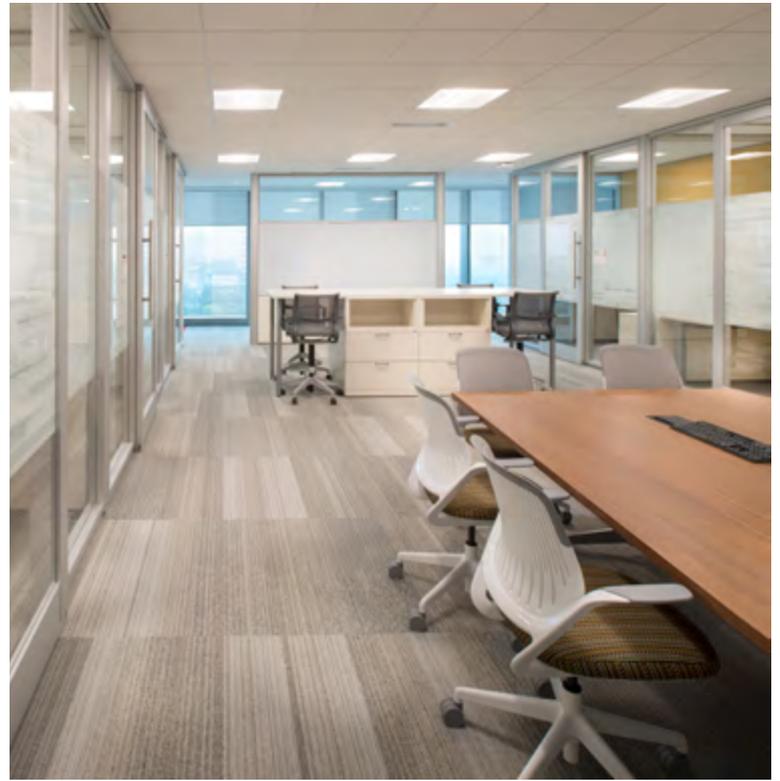
Share ideas. Find solutions.

Tailor spaces for engaged interaction.









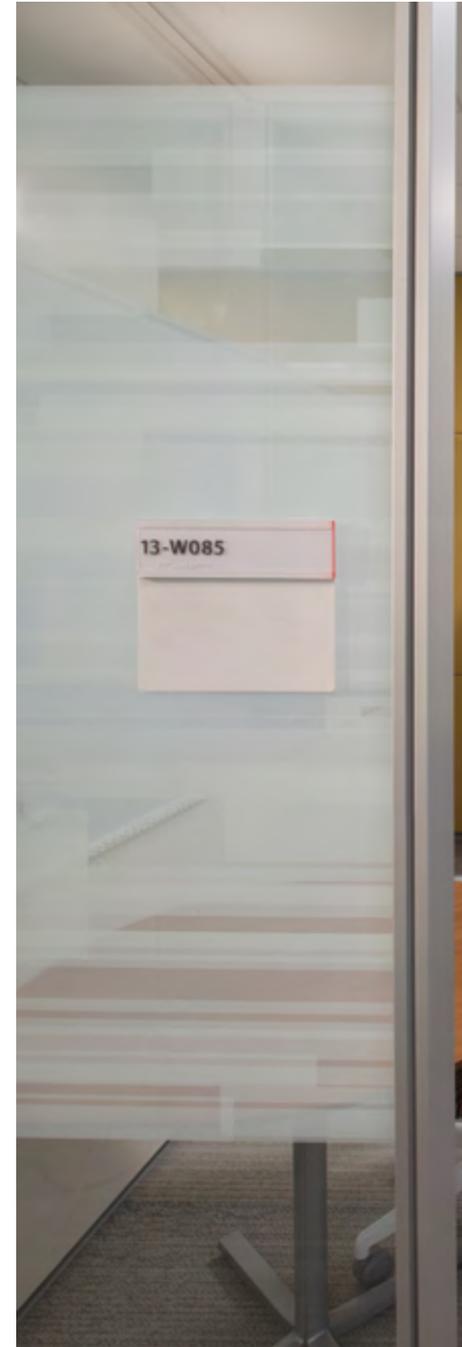
A variety of spaces with built-in flexibility ensures teams can perform at peak.



An elevated workspace provides a fresh point of view.



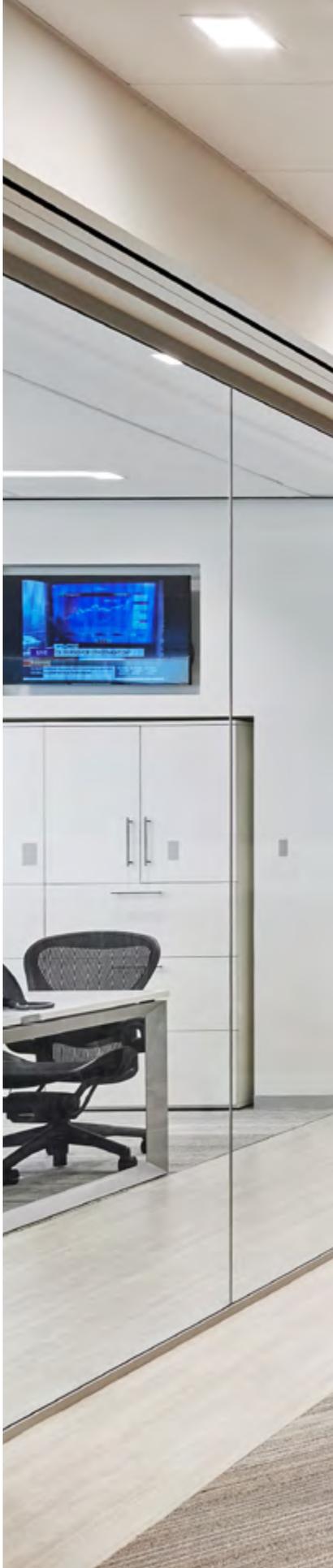






Team spaces can be porous to passers-by or closed for intense focus.

Build a platform for strategic discussions.









Team communication occurs across a spectrum—formal and informal, internal and exploratory, project focused, and social.

Effective workplaces help shape ideas into innovative solutions.









“The workplace design forces a natural collision of people.

Today, I was walking by someone from another business group and they asked, “Can you come look at a design?” We just opened it up on two screens and started moving things around; it was very natural, very organic, and just at the right time.”





Connect with your team
as you connect with
your city.





Efficiency has never been more dynamic.

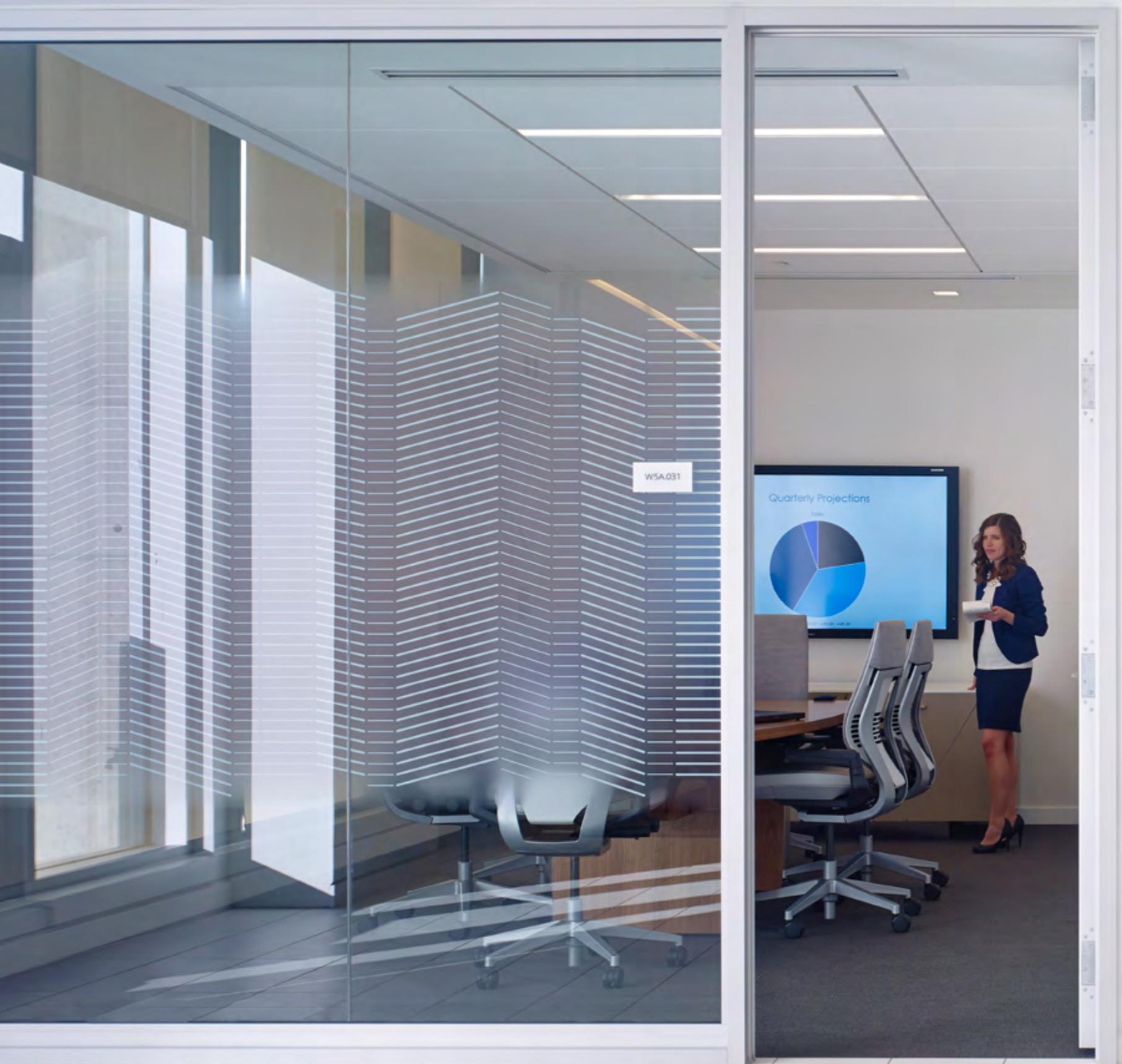






Bright spaces energize teamwork.





WSA.031

Quarterly Projections



A woman in a dark blue blazer and skirt stands next to the screen, holding a document.



Achieve the ideal balance of privacy and visual connection.





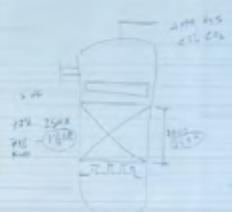


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0.205 - 0.206



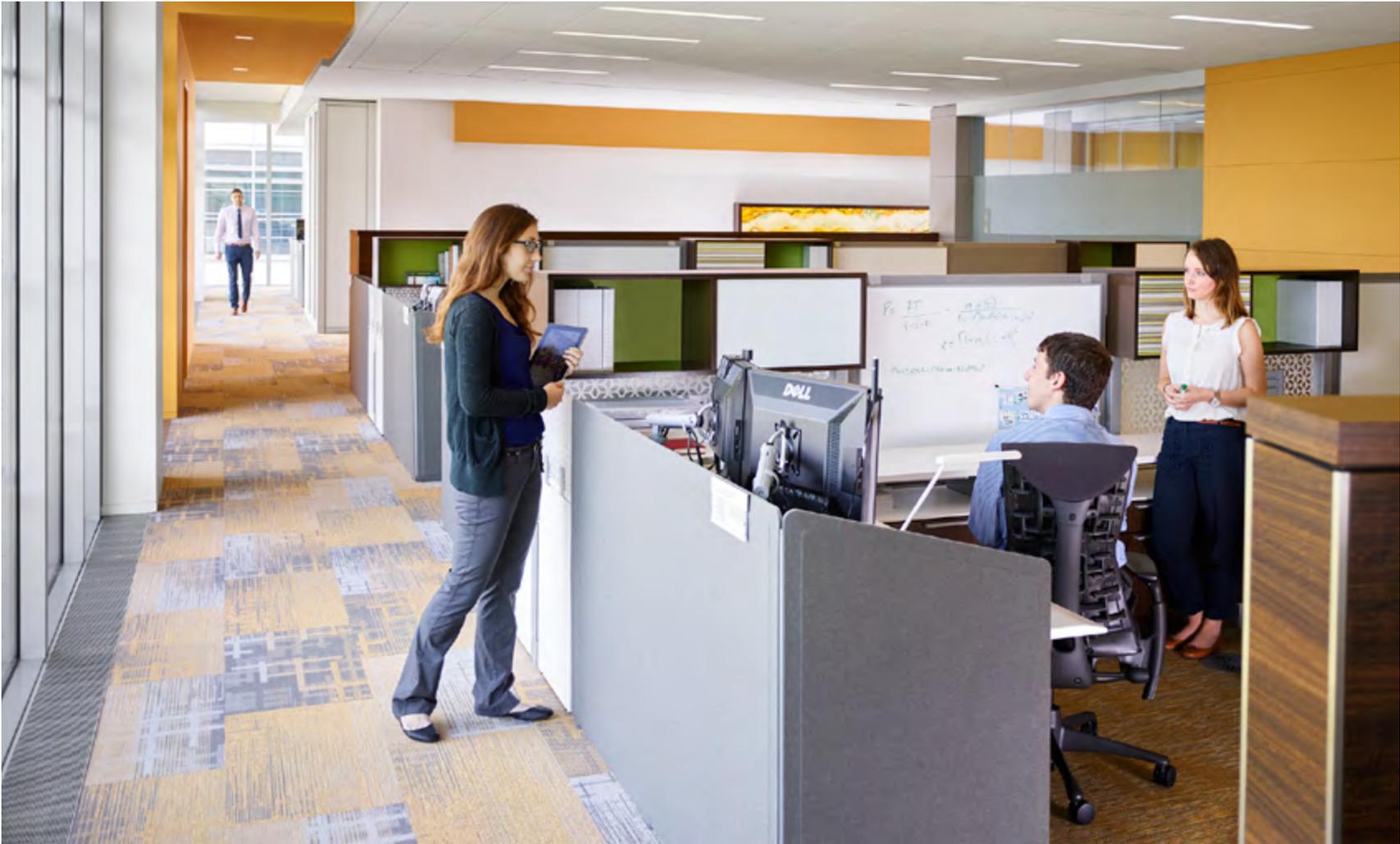


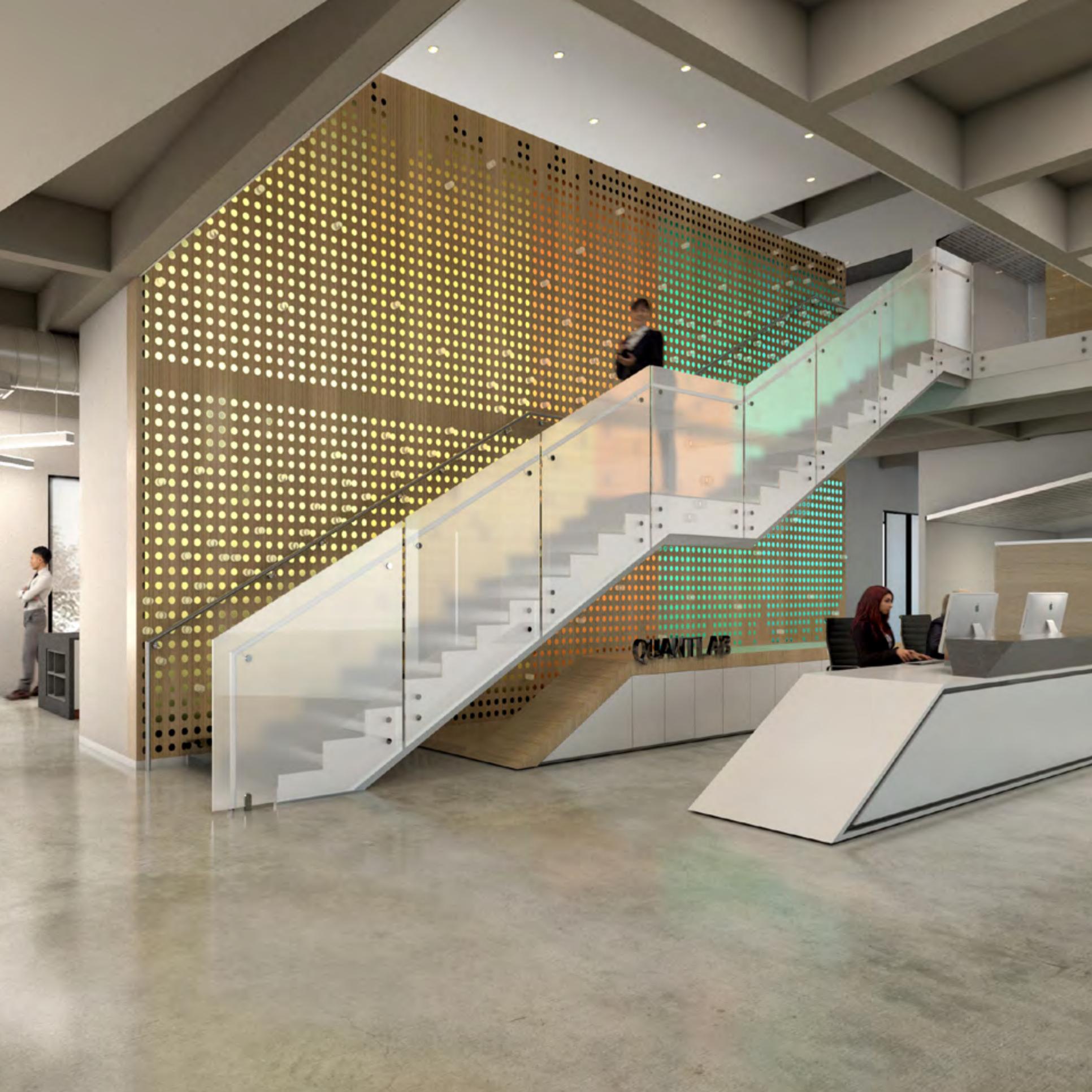
S2.3C.467
Studio
A





Enhance cross-team
and cross-organizational
communication.





QUANTLAB



“A workplace strategy combined with good design solutions resulted in a highly collaborative and flexible work environment that connects people, supports new ideas, and provides a sense of community for employees.

All the spaces are right-sized, multifunctional, and designed to accommodate a variety of activities and groups. With the intelligent use of forms and furnishings, a welcoming environment is created that reflects our brand and vision.”

“Workers are drawn together in this vibrant, flexible environment. Engaging spaces throughout the office provide a feeling of connection and trust among employees, resulting in an overarching sense of community.

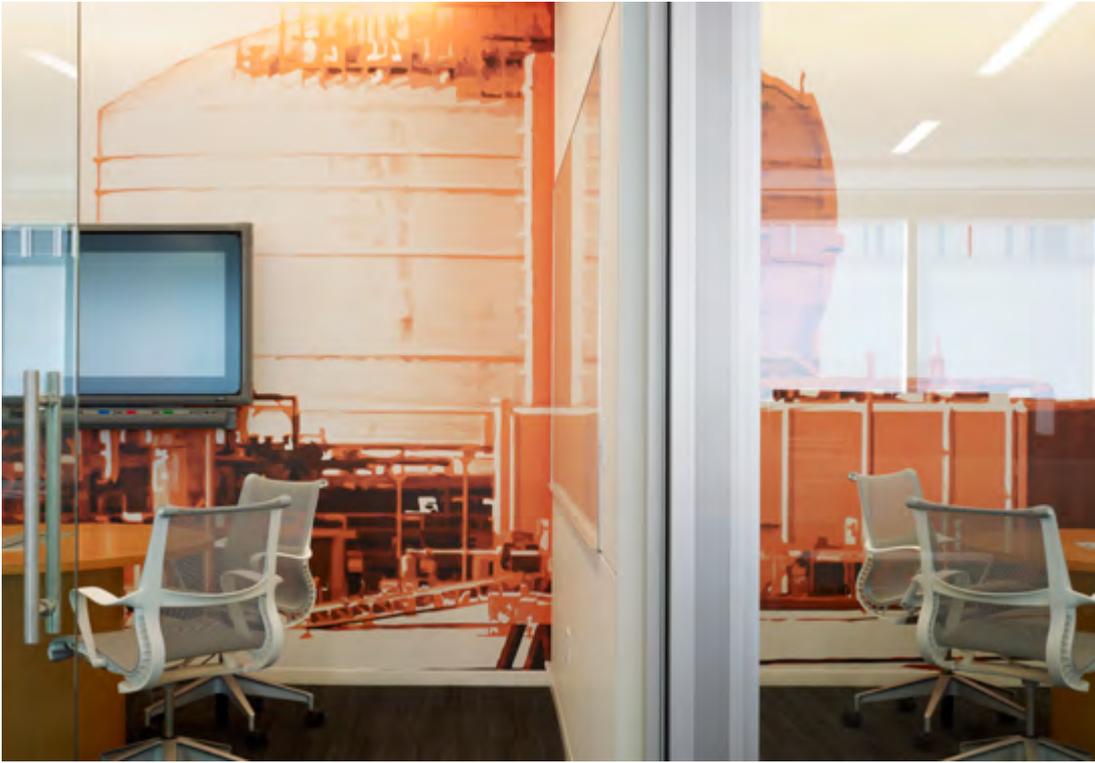
By rethinking the ways in which business units work, an office that focuses on encouraging employee interaction in a variety of ways is created.”











A flexible workplace
is tuned to the task.









Team environments can be as unique as the business.









Serene moments
refresh and inspire.







Visual connections provide avenues for personal and professional growth.



Bring off-site team activities in-house.









A workplace infused with brand and cultural values fosters a sense of authenticity among teams.



Sit down to catch up.
Claim space and brainstorm.

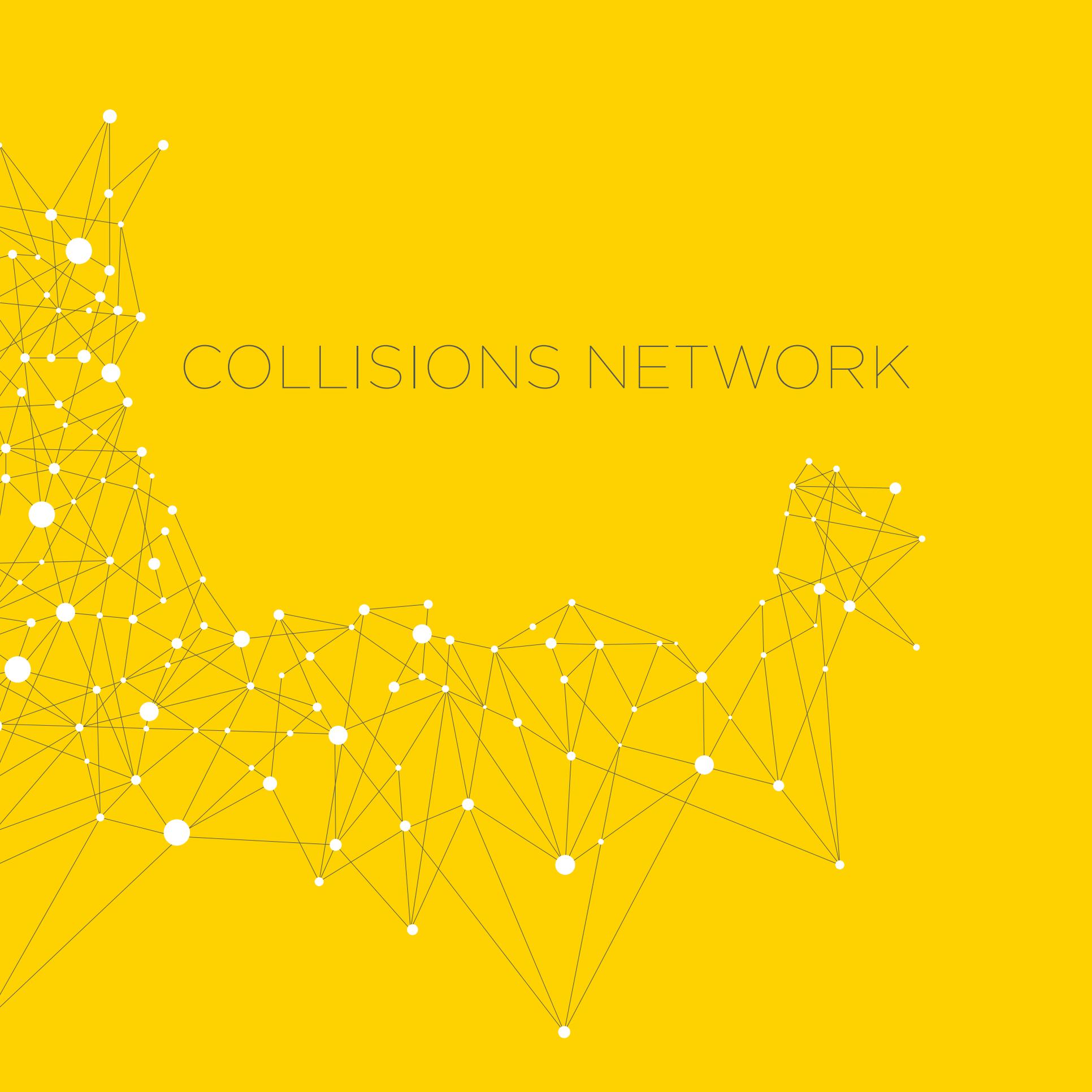










A network diagram consisting of numerous white circular nodes of varying sizes connected by thin white lines. The nodes are distributed across the frame, with a higher density on the left side and a more sparse arrangement on the right. The lines represent connections between the nodes, forming a complex web. The background is a solid, bright yellow color.

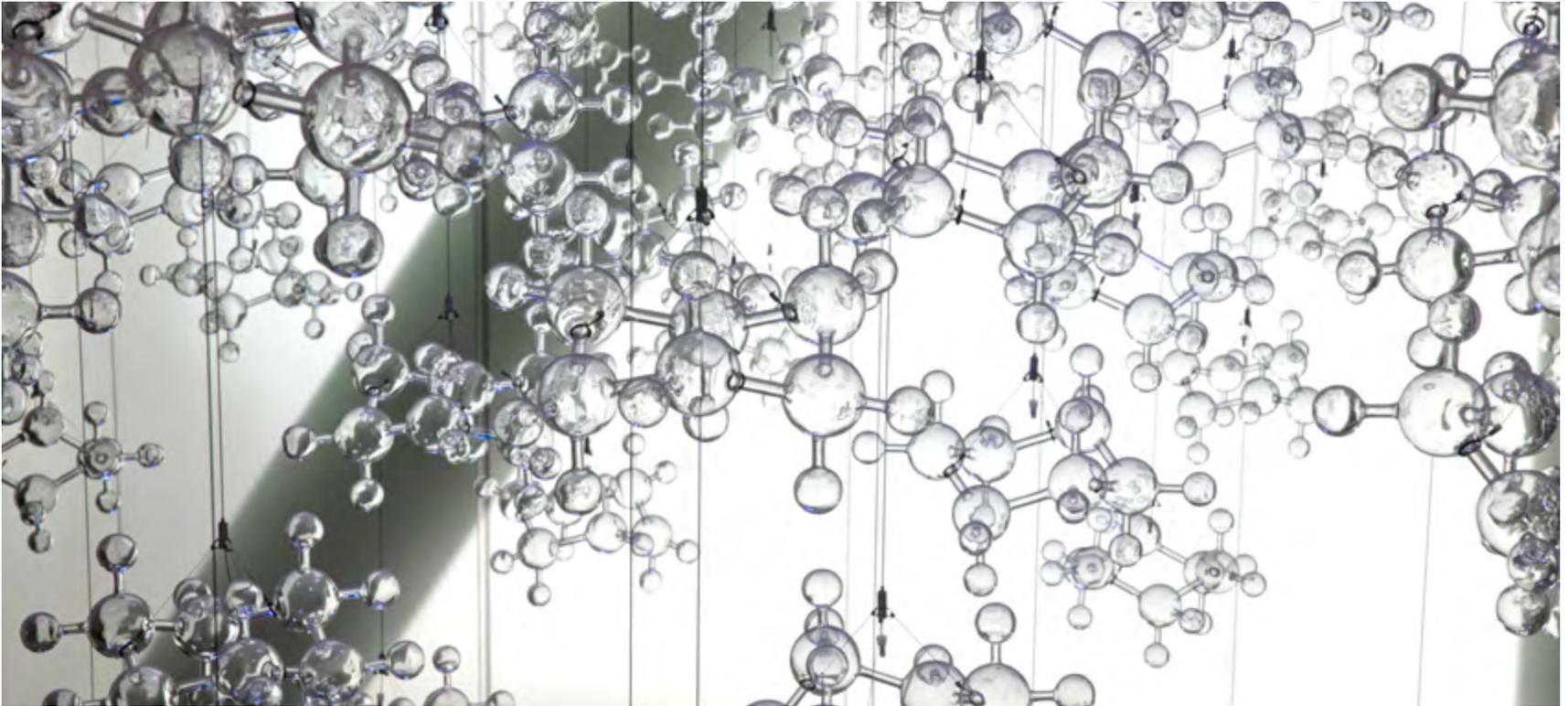
COLLISIONS NETWORK

Communication patterns at the enterprise level form a complex network of activity between systems of people.

Communication patterns at the enterprise level form a complex network of activity between systems of people. The energy at the scale of individual workers feeds into team dynamism, which, in turn, invigorates the various operational spheres of a company. That growing, shifting tapestry of interactivity is a company's "collisions network." Although unique and intricate, exchanges within the collisions network take shape as two main types: dependent and connective.

Dependency describes interactions between business units that affect the "life or death" of a company. For example, one team creates a product, another team takes it to market, and yet another protects its intellectual property. The success or failure of the company depends on the effectiveness of their collective efforts.

Connectivity refers to the beneficial collisions between teams of people that help an enterprise evolve in more qualitative ways. Corporate identity, reputation, mission, and culture, for example, are strengthened through connective collisions.



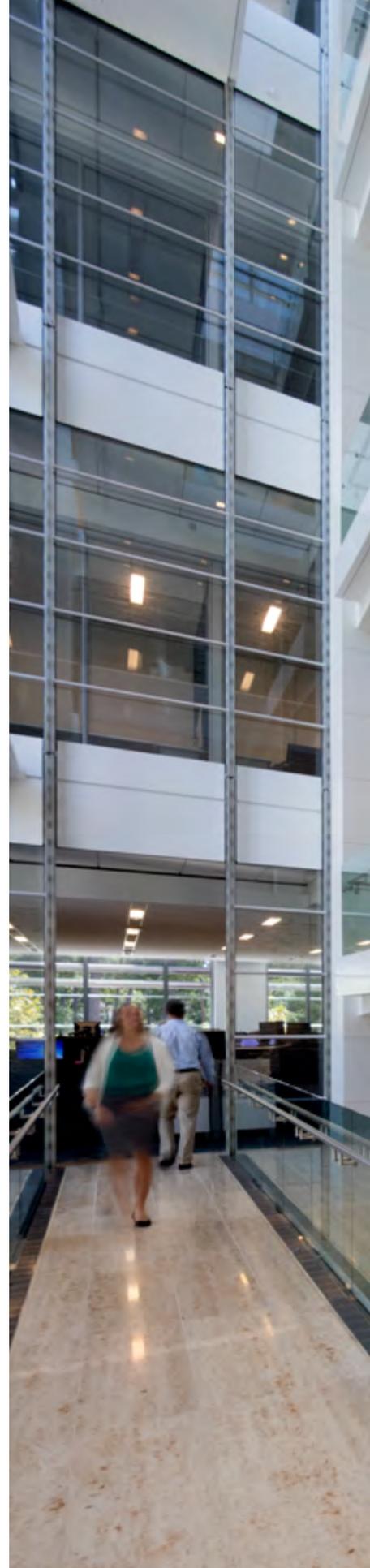
The performance of the collisions network directly affects the financial, operational, and psychological well-being of a company. Workplace plays an important role in supporting systems-level collisions by building platforms for the vital exchange of ideas and processes to interact at every scale of a business.

Savvy businesses know people, processes, and places are their most important assets. Their collective equity is stronger when workplace is leveraged to its full potential as a strategic communications tool. Architecture shapes behaviors and sets the tone of interactions. Furniture and technology support the operational needs of the workers. The details and care of craftsmanship speak to their senses. Attention to adjacencies of skill sets, circulation routes of teams, and open, shared spaces connect workers in new and often unexpected ways.

Together, the elements of a healthy workplace form a powerful collisions network that carries the organization's vital unspoken energy from room to room, from floor to floor, from building to building, and beyond.



Up or down, opportunities to
change perspective abound.







The pulse of the enterprise is felt at every level.





Mobil 1

Mercedes-Benz

HILTON HONORS
Akzon

PIRELLI
P ZERO

MP4-29

BOSS



Workplaces can push the boundaries of performance.



Reflect. Refocus. Recharge.















Grand spaces fill with collective purpose.

Celebrate brand in unexpected ways.







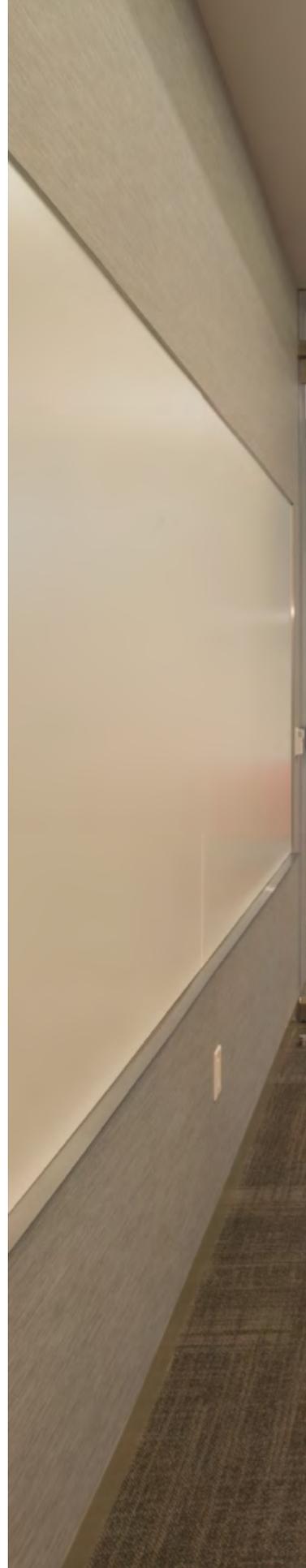


“The space successfully reflects our culture, integrating company branding in a subtle yet unmistakable way.

The office exudes energy and creative thinking. Colors, materials, and furnishings are all strategically selected to create an environment that welcomes employees and visitors, facilitates mobile work, and offers countless opportunities for collaboration. As employees and visitors walk through the space they gain a profound sense of the company’s legacy.”

“When you combine top-quality people with state-of-the-art facilities there is no doubt that the end product will be competitive advantage.

Our new workplace provides us with an opportunity to leverage the full intellectual capability of our organization across organizational boundaries as never before. Our leaders at every level and in every part of the business have the opportunity to foster a culture that rewards meaningful collaboration and supports a new way of working.”

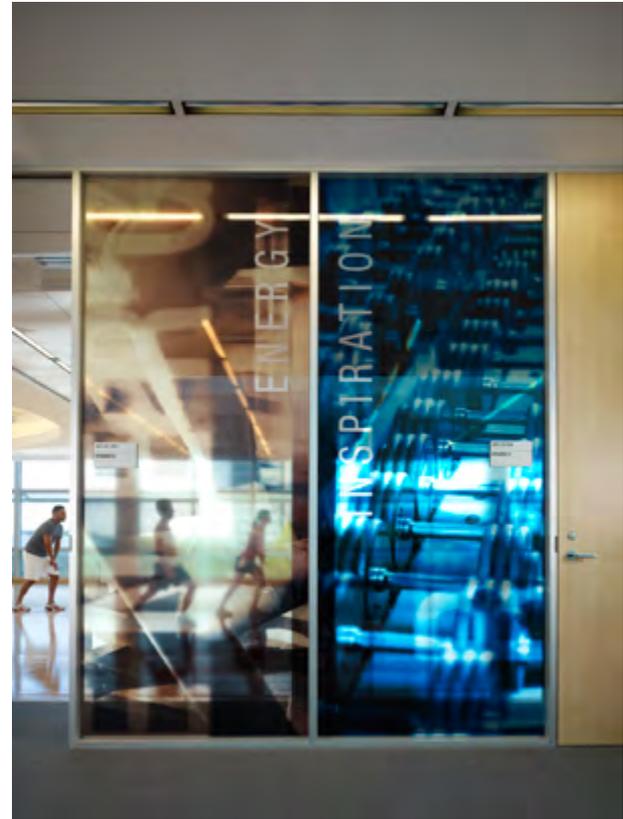


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24/7/2015

(CONFERENCE





Health, personal connection, and work intersect.



Feel like a part of something bigger.











Cultural pride manifests through thoughtful design.



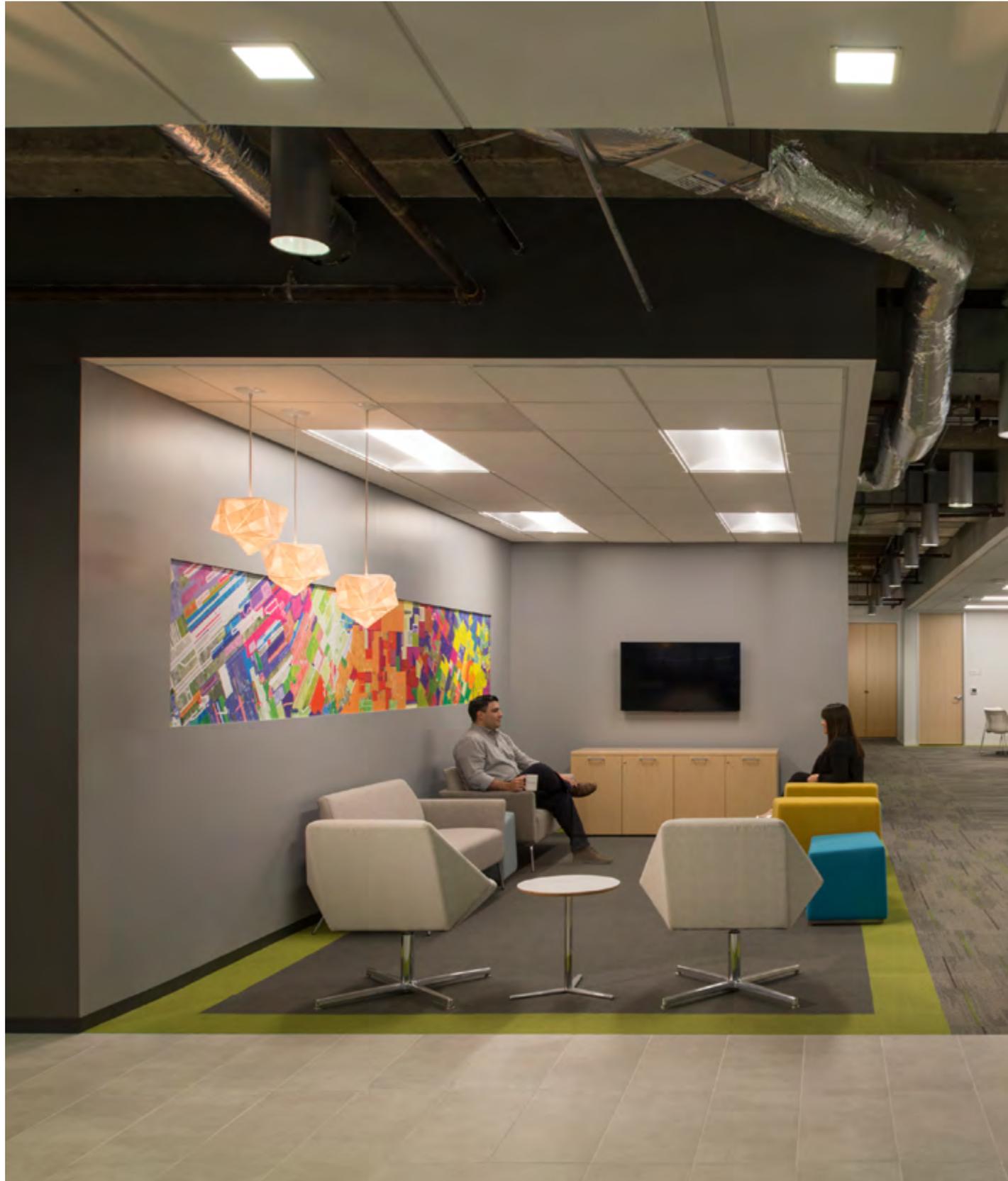


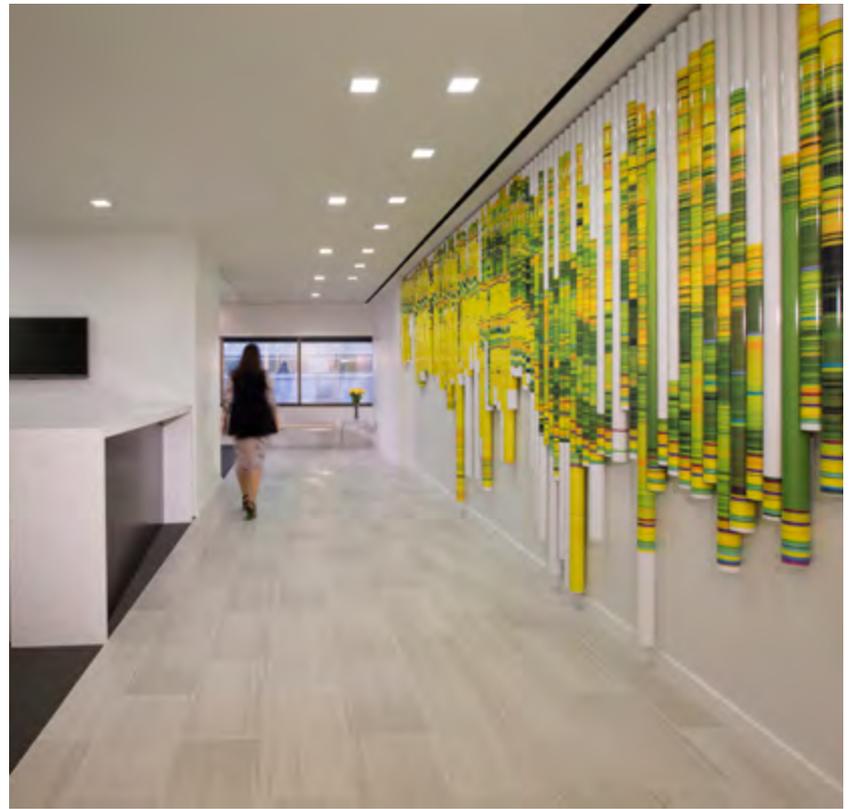


Discover multiple levels of learning and exploration.









Expand the enterprise
network beyond the
typical workplace.









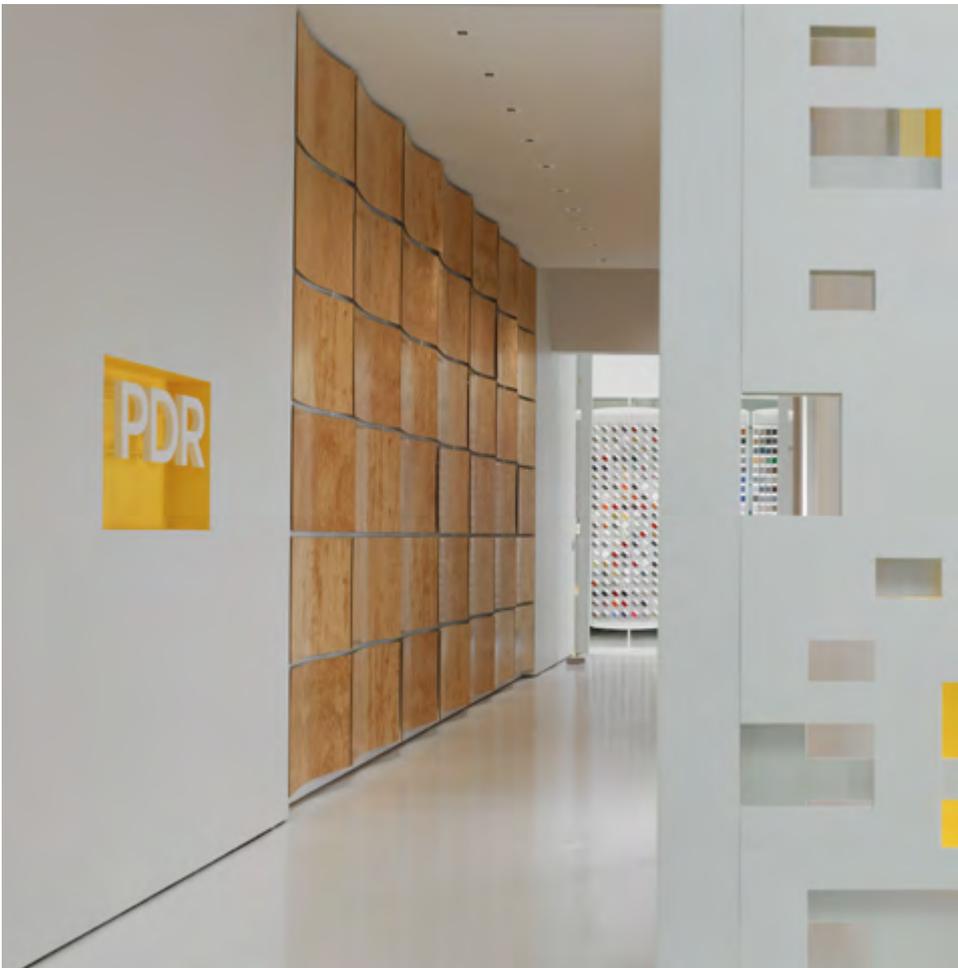


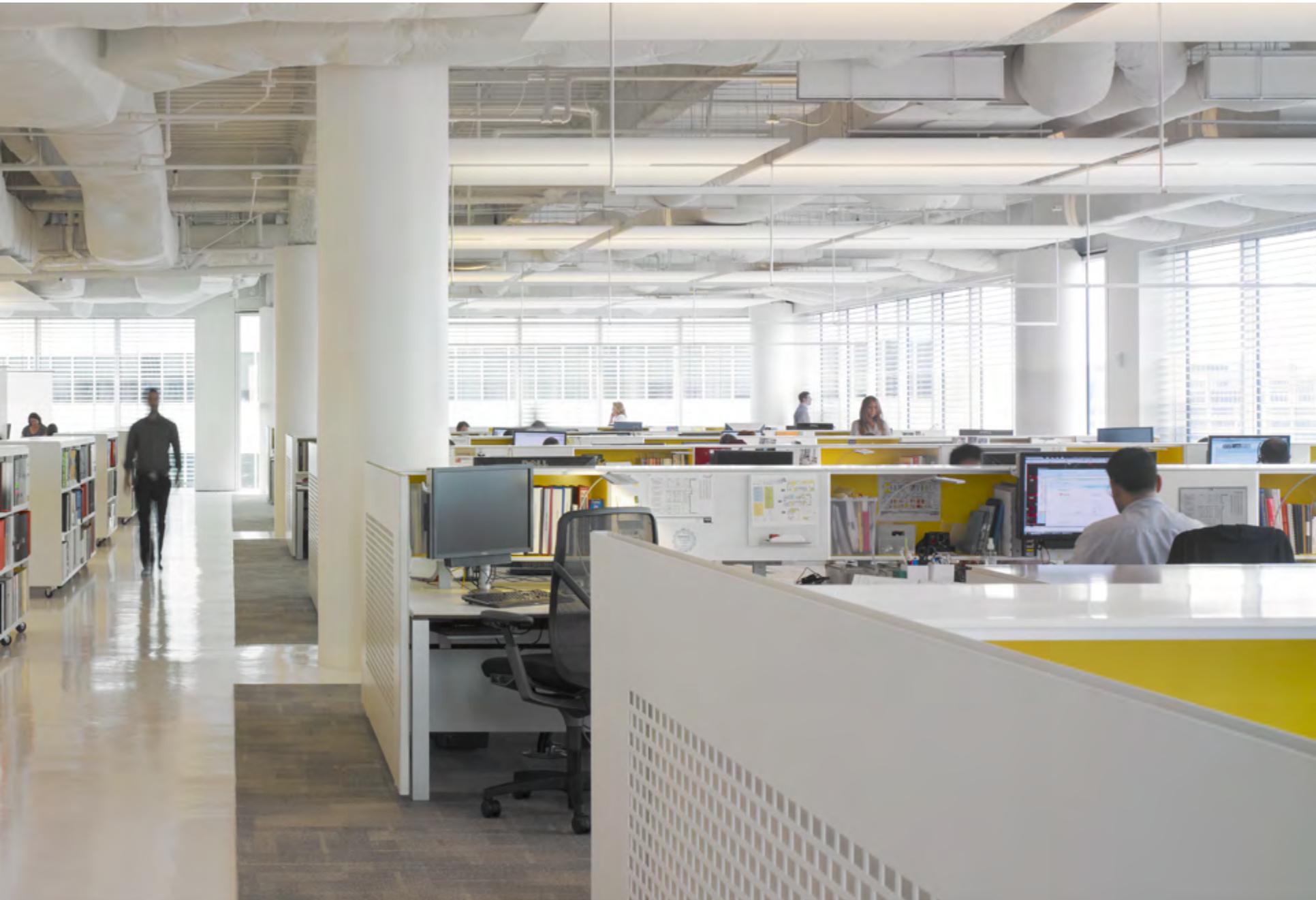
MURPHY
EXPLORATION & PRODUCTION CO.



Align brand, mission,
purpose, and workforce.

Support knowledge sharing, teaming,
and a culture of innovation.







WELCOME
MEG

**WELCOME
JAMES
KENNEDY**

**TO
CHICAGO**

THURSDAY, JUNE 1
12:07 PM





“We believe in granting autonomy to teams and individuals.

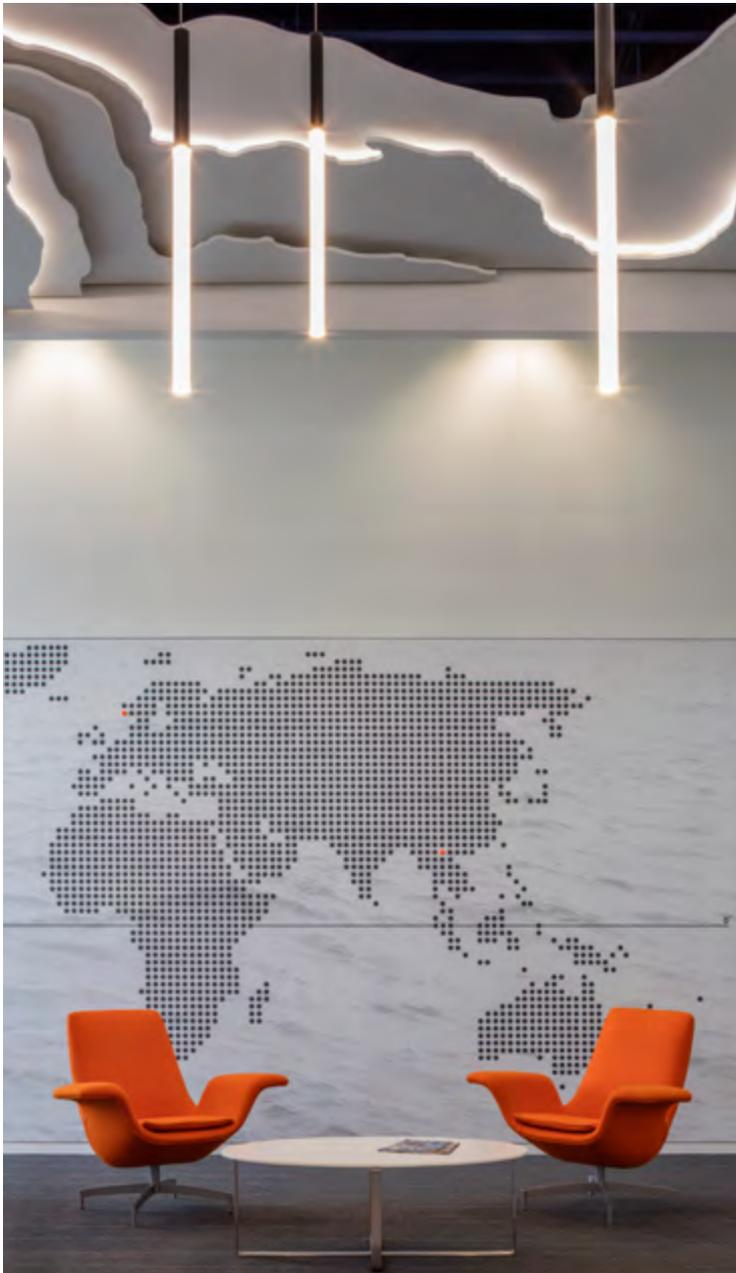
It is a subtle gesture of empowerment by company leaders that promotes not-so-subtle productivity gains.”

“For all, the organizational imperative is to align: one brand, mission, purpose, and workforce.

Another is to provide: supporting knowledge sharing, teaming, and a culture of innovation. Both imperatives are in play while delivering value to the bottom line.”



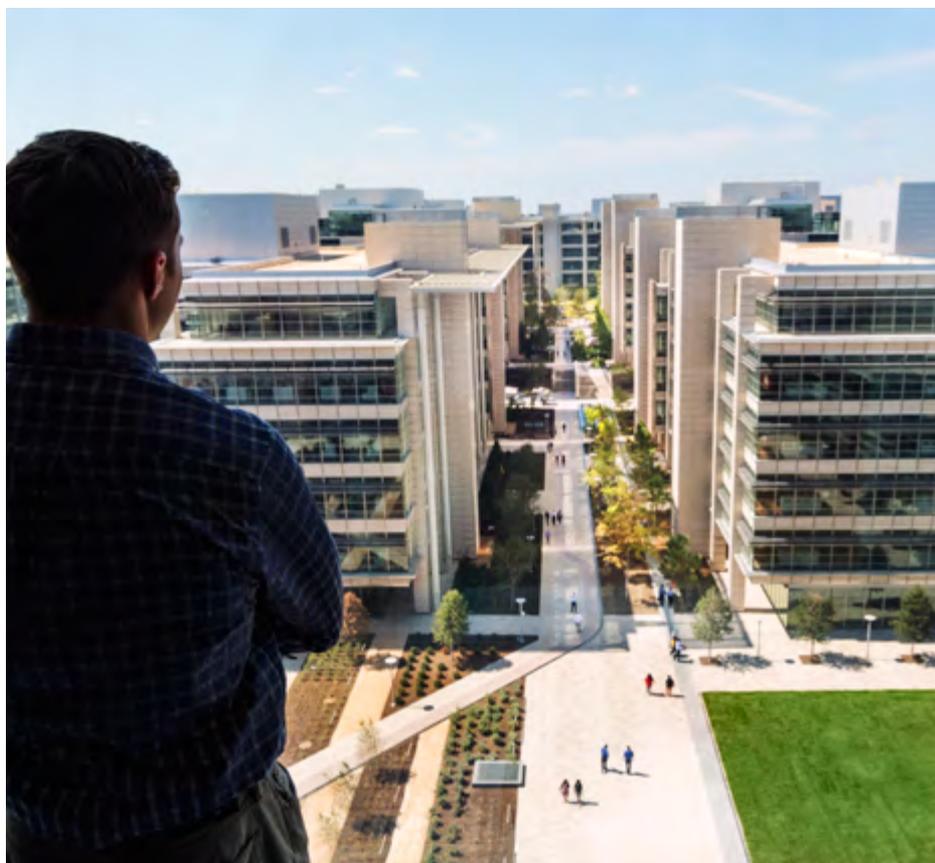






EMAS CHIYODA
Subsea





Think of the possibilities.

Connections and collaborations
lead to improved business
performance.

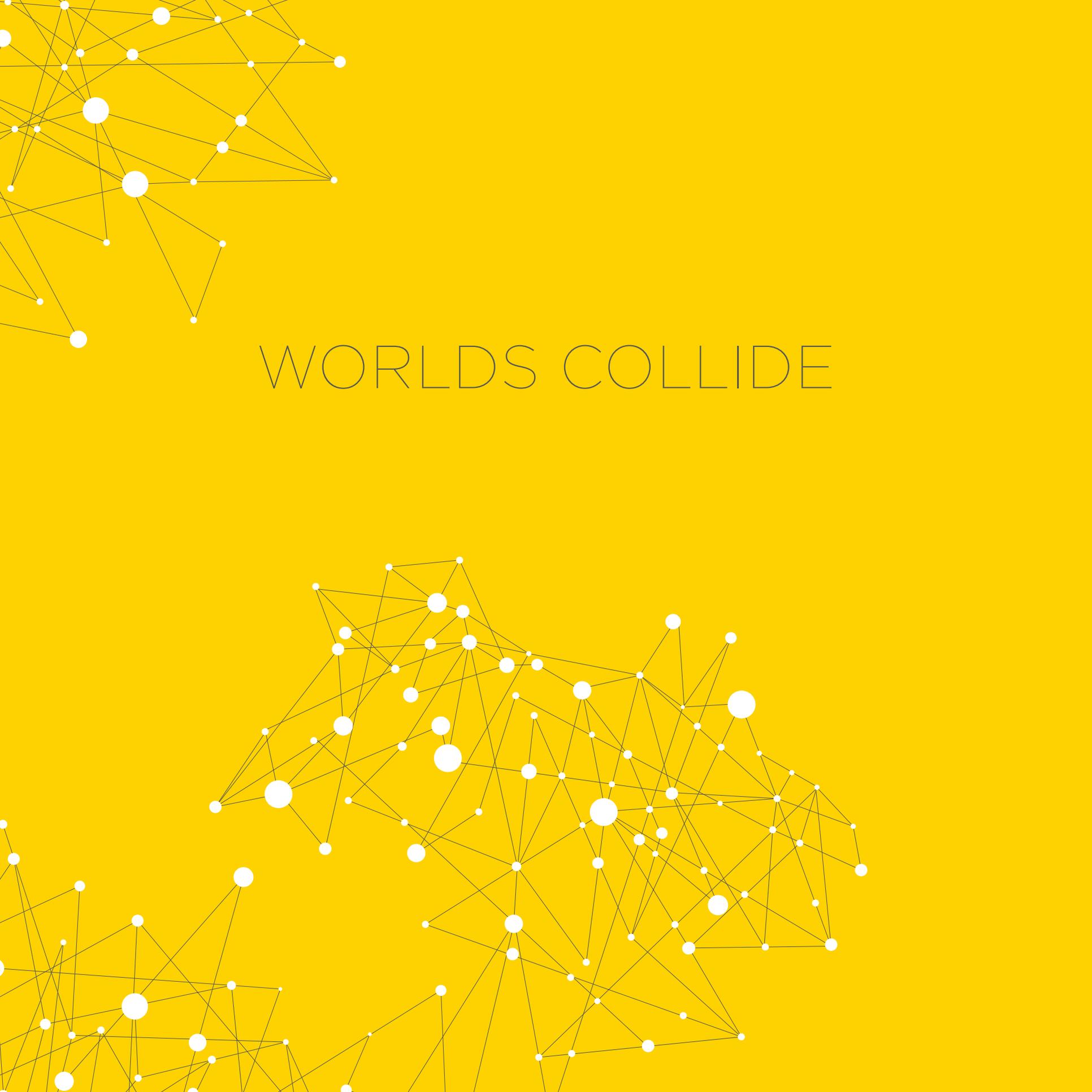










The image features a vibrant yellow background. In the top-left and bottom-left corners, there are abstract network-like structures composed of white circular nodes of varying sizes connected by thin, light-colored lines. A large, central cluster of these nodes and lines is positioned in the lower half of the image, creating a sense of depth and complexity. The overall aesthetic is clean, modern, and digital.

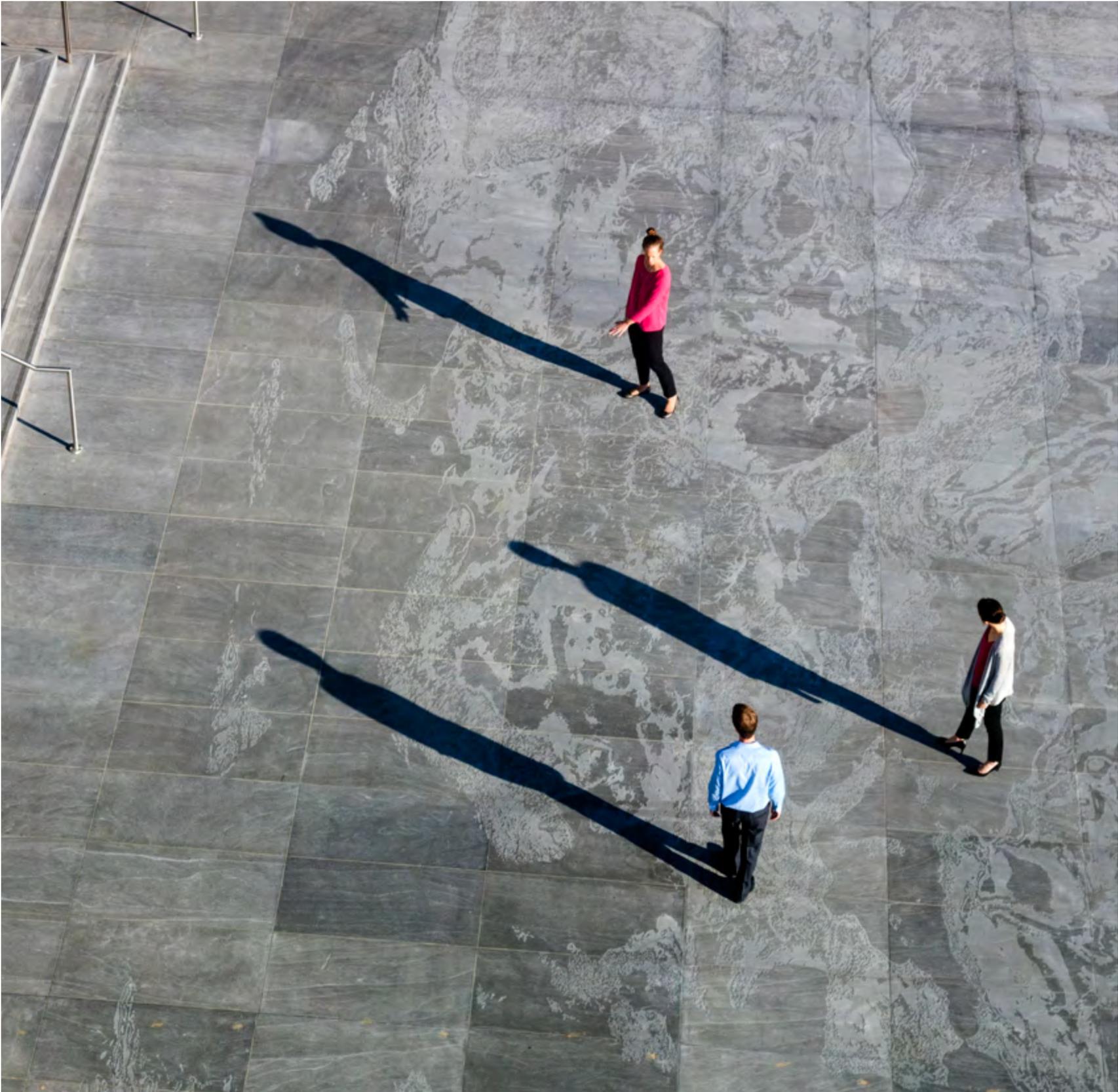
WORLDS COLLIDE

Today's enterprise can no longer rely on a business-as-usual approach to daily operations.

Competition is fierce and partnerships between industries are more important than ever. Starting from within, from the “inside out,” PDR helps companies transform the ways in which they work from the individual scale to the enterprise network. The chemistry between people and the ideas they exchange is what allows companies to achieve the next level of development, impact their industry, and change the ways the world operates.

Research on communication patterns within businesses reveals an inspired connection between the world of science and the world of workplace. Thinking of molecules as people, of chemical reactions as successful innovations, and of workplace design as the catalyst for it all, drives how we talk about workplace. Understanding the concept of collisions and their importance to business shifts our perspective of workplace from a real-estate expense to a crucial communication tool; from overhead to resource. The concept “collisions” is also product of collisions. It was not created in a vacuum or by a single person; it was a reaction to the impact of two worlds of thought.

We have connected advanced chemistry with the contemporary workplace to provide new insight to an ancient and universal aspect of being human—communication. As we pursue the future of workplace, it is clear that the answers lie in the same principles that brought early man together around the campfire. Communication is central to being human, crucial to problem solving and knowledge sharing, and vital to building community and culture. Studying how people work and socialize guides us to what they need to succeed in today's business environments and the professional arenas just over the horizon.



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PDR delivers innovative workplace solutions. Our integrated services in consulting, design, and architecture address business conditions and work environments to create high-performance spaces designed to evolve over time.

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