



Open innovation will be crucial to navigating current and future business challenges. In our survey of 1,000 organizations, we found that 75% see open innovation as critical to addressing complex issues in their businesses. The significance of open innovation is even greater in light of pressing sustainability challenges that cannot be addressed in isolation. More than eight in ten (83%) organizations see open innovation as a critical success factor in addressing sustainability goals.

Organizations are adopting a variety of approaches to open innovation, including corporate accelerators and incubators, corporate venture capital, venture clienting, venture building, crowdsourcing, and open

83[%]

of organizations see open innovation as a critical success factor in addressing sustainability goals.



71%

of organizations plan to increase investment in open innovation in the next two years.

innovation labs. As many as 71% plan to increase investment in open innovation in the next two years. New York and London emerged as the top-ranked cities for planned investment in open innovation labs for the next two years; Paris ranked third, while San Francisco moved down one spot, to number four in the rankings. Three of the top five cities where organizations plan to focus

investments in open innovation labs in the next two years are in Europe (London, Paris, and Berlin).

Our research also shows that open innovation has delivered a wide range of benefits for organizations: 55% say that it has led to increased speed of innovation, while 62% say it has led to greater employee agility and adaptability. Over 60% have also realized financial benefits such as increased revenue and operational efficiency. Open innovation is also helping organizations address their sustainability goals, with 63% citing improvements in environmental sustainability indicators and 55% in social sustainability indicators as a result of their open innovation initiatives.

However, organizations expect more. Most feel that, to date, they have been unable to tap into the full potential of open innovation. Just over half (53%) of organizations in our survey rate the quality of outcomes from open innovation as "above average" or better, while the rest describe their outcomes as "average" at best. Apart from crowdsourcing (which 55% of organizations rate as effective), most open innovation models are yet to prove consistently effective for a majority of organizations. Our research also shows that organizations are not committing themselves adequately to open innovation, preferring to work with more traditional partners such as customers and suppliers rather than exploring new sources

53[%]

of organizations in our survey rate the quality of outcomes from open innovation as "above average" or better, while the rest describe their outcomes as "average" at best.

22%

only 22% of organizations described their outcomes from open innovation as "good" or "excellent". of innovation such as universities, industry consortiums, companies in other industries, government bodies, and non-profits. As a result, organizations derive better outcomes from their open innovation partnerships with customers and suppliers. Greater openness to a new kind of partnership could, however, yield even better results.

When it comes to innovation, audacity pays dividends: organizations that take a bolder approach to open innovation realize better outcomes. We found that 22% of organizations described their outcomes from open innovation as "good" or "excellent". These organizations extend the scope and application of open innovation in the following three ways:

- Engaging more readily in adjacent and transformational innovation (i.e., going beyond innovating incrementally in existing business areas to targeting newer, and potentially riskier, business areas)
- Collaborating more closely with innovation partners, including those not directly linked to their core business model
- Broadening the scope of open innovation to functions outside R&D/ product development

To enhance the outcomes of open innovation, organizations need to establish a foundation for open innovation success by positioning open innovation at C-suite level, setting clear objectives for open innovation,

fostering the right culture and mindset, and building alignment of innovation and business teams. Once the foundational elements are established, an organization can increase its chances of success in open innovation through the following seven actions:

- Embracing bold open innovation
- Adopting a tailored approach for each category of partner
- Setting the right metrics for success

- Ensuring early involvement of business teams and their participation in each initiative
- Developing processes to onboard innovation partners rapidly
- Adopting technology enablers to manage and coordinate open innovation initiatives
- Disseminating learnings from open innovation across the organization



In 2003, Henry Chesbrough, a professor at the University of California, Berkeley, coined the term "open innovation." Back then, no one ascribed too much importance to it, but, since then, the concept and practice of open innovation have taken on greater significance in industrial development. In contrast to traditional, siloed corporate research labs, open innovation draws on the complementary skills of a range of partners, including startups, academia, suppliers, customers, and other corporations, to identify and generate new sources of value.

While open innovation is an established concept, it is more relevant than ever today

as organizations face an increasingly complex business environment – fueled by the rapid pace of technological advancements, prevailing geopolitical tensions, and the urgency of the climate crisis – that demands the reinvention of existing business models and ways of working. Open innovation is crucial to addressing gaps in internal competencies and shortening organizational response time to external challenges. Further, the scope of open innovation needs to be far broader today than the realm of R&D where organizations have typically focused their efforts in the past. In the current context, organizations need to apply open innovation practices not only to boost

their R&D capabilities but also to radically rethink business strategies, transform supply chains, and meet demanding sustainability goals.

70%

of Unilever's future innovations to arise from collaborations, given the scale of global challenges such as climate change, broken food systems, and discrimination.¹

troduction

The systemic nature of sustainability challenges requires a coalition of partners – including suppliers, customers, startups, universities, competitors, government bodies, and non-profits – working together to find solutions. UK-based consumer goods multinational Unilever, for instance, expects 70% of its future innovations to arise from collaborations, given the scale of global challenges such as climate change, broken food systems, and discrimination.¹

This approach has already resulted in successful outcomes. In 2021, Unilever, in partnership with LanzaTech, a US-based biotech startup, and India Glycols, an

India-based chemical manufacturer. successfully piloted the world's first dishwashing liquid and laundry capsule made from recycled industrial carbon emissions rather than fossil-fuel-based feedstocks.² Unilever is also participating in a cross-sector collaboration of 15 organizations in the UK as part of the Flue2Chem project – a two-year program, backed by funding from the UK government, that aims to convert industrial waste gases into sustainable feedstocks for consumer products. The project brings together a wide range of organizations including chemical, steel, and paper manufacturing companies (such as BASF and Tata Steel), other consumer product

companies (P&G and Reckitt), non-profits (such as the Society of Chemical Industry (SCI)), startups (such as UK-based Carbon Clean that specializes in carbon capture technology), and universities (University of Sheffield and University of Surrey). Ian Howell, Unilever's Home Care Science and Technology R&D Director, highlights the value in bringing together an ecosystem of partners to jointly address systemic challenges: "No single company can do this alone and so to have the power of 15 manufacturers and academics marks a significant step forward not only for the UK, but globally too."

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In this report, we drill down into the newfound relevance of open innovation to large organizations and their partners. During February and March 2023, we surveyed 2.000 senior executives from 1,000 large organizations (each with annual revenue exceeding USD 1 billion) that have ongoing open innovation initiatives. The survey covered organizations from eight industry sectors and 12 countries across North America, Europe, and APAC, with two respondents from each organization – one from the innovation function or equivalent, and one from a business function such as R&D, strategy, marketing, sustainability, or supply chain. We also surveyed 500 startups, academics, and non-profits that have worked with large organizations on open innovation projects. In addition, we interviewed more than 30 experts from industry, startups,

venture capital firms, and academia (please refer to the research methodology at the end of the report for more details).

This report explores the following key questions:

01

What does open innovation mean to organizations today?

02

What are open innovation leaders doing differently?

03

How can organizations use open innovation more effectively?



DEFINING "OPEN INNOVATION"

For the purposes of our research, we define **open innovation** as the practice of collaborating with external entities such as startups, universities, other corporations, non-profits, etc. to co-create new value, rather than relying only on internal knowledge and resources. Please note that our definition excludes cross-functional internal initiatives.



Organizations that are open to collaboration gain access to a much wider range of knowledge, expertise, and other vital resources, making the navigation of a complex, volatile business environment a less daunting – and even potentially exciting – prospect. Business leaders should ask themselves: Do we have the capabilities to capitalize on future opportunities? If not, can we forge partnerships that will give us those capabilities?

Mercedes-Benz, for example, is a founding member of ARENA2036, a collaborative research environment at the University of Stuttgart, that is dedicated to developing the next generation of mobility and automotive production. By bringing together an ecosystem of partners from the scientific community and industrial sectors, ARENA2036 helps the automotive industry collectively tackle challenges in

areas such as sustainability, connectivity, and supply chain. ARENA2036 also hosts Startup Autobahn – an accelerator program that connects startups with corporates and helps drive successful collaborations. Through its support and sponsorship of initiatives such as ARENA2036 and Startup Autobahn, Mercedes-Benz has benefited in various ways while also creating value for the wider automotive ecosystem. For example:

• Nokia, Bosch, and Mercedes-Benz collaborated to successfully test two use cases of 5G to advance the development of automotive smart factories. The first involved using 5G to operate automated guided vehicles (AGVs) more efficiently and safely on the factory floor, and the second involved using it to automatically download and install customized vehicle software at the right moment during vehicle assembly.⁵

 Porsche, multinational chemical company BASF, automotive component manufacturer Motherson, and CircularTree, a startup that provides blockchain-based supply chain management solutions, conducted a joint pilot to securely trace the carbon footprint of materials and components across Porsche's value chain.⁶

In our survey of 1,000 organizations, 75% said that open innovation is critical to addressing complex business issues. With this in mind, 28% plan to maintain investment in open innovation at the current level and 71% to increase it in the next two years. The most common drivers of open innovation are: improving existing offerings and developing new offerings, crafting new business models, and making R&D spend more efficient.

OPEN INNOVATION IS VITAL FOR ACHIEVING SUSTAINABILITY GOALS

In all, 83% of organizations say that open innovation is a critical success factor in achieving sustainability goals. According to Enrica Monticelli, Group Technology Innovation Director at the De'Longhi Group, a domestic appliances company based in Italy: "We are actively engaging external partners to deliver our sustainability plan, especially in areas that are new for us, such as the reuse, refurbishing, or second life of products. It is a new world for our sector, and we need to access external capabilities to be fast and agile in these areas."

Iberdrola, a renewable energy company in Spain, is harnessing collaboration to achieve its sustainability goals. In 2021, it formed the Global Smart Grids Innovation Hub, with the aim of doubling the number of smart grid innovation projects worldwide. It identified

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Enrica Monticelli
Group Technology
Innovation Director at the
De'Longhi Group

over 120 projects for future development, worth a combined €130 million. The company enlisted 91 technology partners to assist with grid-digitalization solutions, integration of renewables, and deployment of EVs and energy storage systems. Iberdrola has set up working groups with different collaborators for each category of new technology, based on its business priorities.⁷

68[%]

of the businesses we surveyed have started to focus on open innovation for sustainability in the past two years.

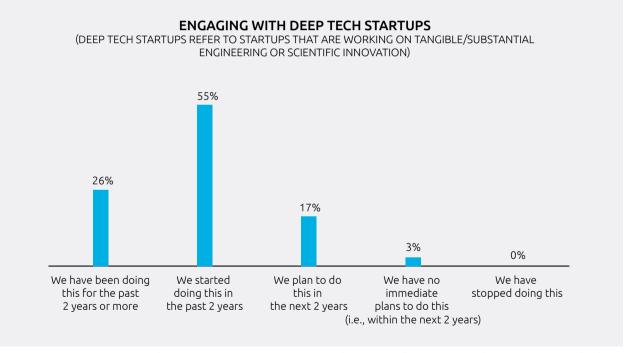
In the past two years, a significant majority (68%) of the businesses we surveyed have started to focus on open innovation for sustainability (27% were doing so earlier on and the remaining 5% plan to do so in the next two years). The need to accelerate the transition towards net zero is driving organizations towards leveraging external sources of innovation. Sandra Blázquez Borrás, Head of Open Innovation at Repsol, an energy multinational, comments: "All the solutions we look outside are focused on meeting our goal of achieving net-zero emissions by 2050. We are looking for solutions primarily in three fields: lowcarbon processes and circular economy, including hydrogen and carbon capture, use and storage [CCUS]. Secondly, everything to do with renewable energies and advanced mobility, including e-fuels and advanced lubricants. And thirdly, digital technologies focused on optimizing our assets."

Organizations see startups as significant allies in advancing their sustainability efforts. Seven in ten organizations believe it is crucial to work with startups to address sustainability challenges. Given the complexity of challenges such as climate change, biodiversity loss and resource



More than half (55%) of organizations say they have started engaging with deep tech startups in the past two years





Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 innovation executives.

ORGANIZATIONS ARE APPROACHING OPEN INNOVATION IN DIFFERENT WAYS

Organizations have adopted multiple approaches to open innovation, including corporate accelerators and incubators, corporate venture capital, venture clienting,



venture building, crowdsourcing, and open innovation labs (see Figure 2). Nearly all organizations in our study have implemented at least four of the six open innovation models that we examined, while 68% have implemented all six. Telefónica, for instance, has a number of vehicles to run its open innovation programs, such as Telefónica Ventures, its corporate venture capital arm that invests in startups; Wayra (a startup accelerator program); Wayra Builder (a venture building program); and Open Future (a program to nurture startup collaborations through various initiatives, including a network of physical collaboration spaces).8

As Figure 2 shows, 70% of organizations plan to increase their focus on open innovation labs and 64% on crowdsourcing, in the next two years. Further, close to half plan to

70%

of organizations plan to increase their focus on open innovation labs in the next two years.

"With our L'Oréal for the Future program, we have set ambitious sustainability targets to achieve by 2030, including that 95% of its ingredients will be bio-sourced, derived from abundant minerals or from circular processes. Hence we need to rethink the way we source and produce our ingredients. To achieve this, we collaborate with a wide range of external partners, including startups, to gain new expertise and accelerate innovation. For instance, we explore the use of synthetic biology and fermentation."

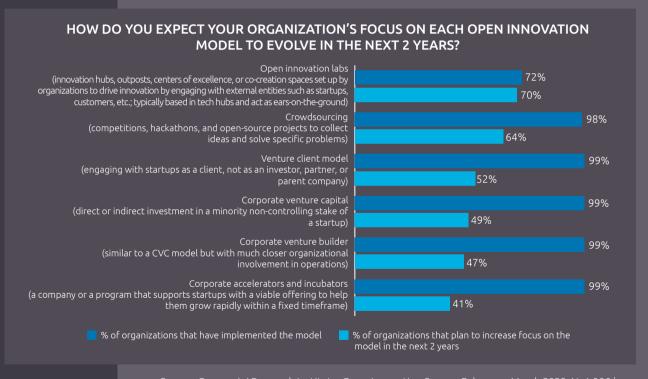
Laurent Chantalat

Senior manager for R&I open innovation and deep tech startup partnership at L'Oréal.

Organizations have implemented a variety of models to engage in open innovation

intensify their focus on corporate venture capital (49%) and venture clienting (52%).

The models upon which organizations choose to focus vary according to their distinct innovation philosophies. For example, an organization might prioritize a venture clienting model, where they partner with a startup as their first client, in order to access the startup's products and integrate them with its own. Others might want to see proof of concept on the market before they commit investment, in which case they might acquire a stake in a promising startup through the corporate venture capital route. Others might prefer to work closely with external talent in open innovation labs. offering their own resources in exchange for greater control over outcomes and co-created intellectual property (IP).



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 innovation executives.

NEW YORK, LONDON, AND PARIS ARE FOCUS CITIES FOR OPEN INNOVATION LABS

New York and London occupy the top two spots among the 20 focus cities for investments in open innovation labs for organizations in our survey (see Figure 3). Nevertheless, organizations are spreading their bets widely across geographies over the next two years including in Paris, Boston, Melbourne, Toronto, Beijing and the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). The last of these, the GBA, was a new entrant to the list, while Rome was pushed out. Three of the top five cities where organizations plan to focus investments in open innovation labs in the next two years are in Europe (these include London, Paris, and Berlin).

Corporate venture capital (CVC) trends also point towards Europe outperforming the US in terms of funding flows. Overall CVC funding by deal value declined 46% y-o-y in 2022 in the US compared with a more modest 28% decline in Europe. The decline in Europe was arrested by France, which grew

52% y-o-y in 2022, according to data from CB Insights.⁹

Quality of life/city infrastructure, access to technology partners, and access to customers and suppliers are leading factors in the selection of locations for open innovation labs.



Top 20 cities of focus for open innovation labs (current and expected ranks)

Top 2	0 cities – based on current location of open innovation labs	To			
Current rank	Open innovation lab location	Rank expected (in 2 years)	Open innovation lab location	Expected change in city rank in the next two years	
1	New York, US	1	New York, US		
2	London, UK	2	London, UK		
3	San Francisco (Silicon Valley), US	3	Paris, France		
4	Berlin, Germany	4	San Francisco (Silicon Valley), US		
5	Singapore	5	Berlin, Germany		
6	Paris, France	6	Singapore		
7	Stockholm, Sweden	6	Boston, US		
7	Tokyo, Japan	8	Melbourne, Australia		
9	Amsterdam, Netherlands	9	Tokyo, Japan		
9	Boston, US	10	Stockholm, Sweden		
11	Melbourne, Australia	11	Delhi National Capital Region, India	_	
12	Delhi National Capital Region, India	12	Amsterdam, Netherlands	▼	
13	Bengaluru, India	13	Toronto, Canada		
14	Shanghai, China	14	Bengaluru, India	▼	
15	Toronto, Canada	15	Beijing, China		
16	Milan, Italy	16	Milan, Italy	▼	
17	Rome, Italy	16	Shanghai, China	▼	
17	Beijing, China	18	Guangdong-Hong Kong-Macao Greater Bay Area, China	New entrant	
19	Mumbai, India	19	Madrid, Spain	_	
20	Madrid, Spain	20	Mumbai, India		

Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=716 organizations for rankings based on current location, and N=1,000 organizations for rankings based on focus of investments in the next two years. All organizations have ongoing open innovation initiatives and annual revenue exceeding USD 1 billion (percentages shown in the chart are based on the responses of 1,000 innovation executives). While our survey focused on organizations from 12 countries, we surveyed large global organizations of which 36% have annual revenue exceeding USD 10 billion.

OPEN INNOVATION HAS DELIVERED A WIDE RANGE OF BENEFITS FOR ORGANIZATIONS

Over 60% of organizations have experienced improved operational efficiency, increased revenue, greater agility, and improved environmental sustainability (see Figure 4).

Enel's partnership with startup Wegaw is a case study in improving efficiencies and sustainability. Wegaw used its geospatial data to raise the efficiency of Enel's hydropower plants. Wegaw's technology helped Enel to reduce the cost of new clean-energy projects, incorporate data into existing clean-energy models, and gain a better understanding of the environmental variables that would allow more precise adjustments to trading prices. Pilots in Spain and Switzerland saw increases of up to 10% in hydropower energy generation

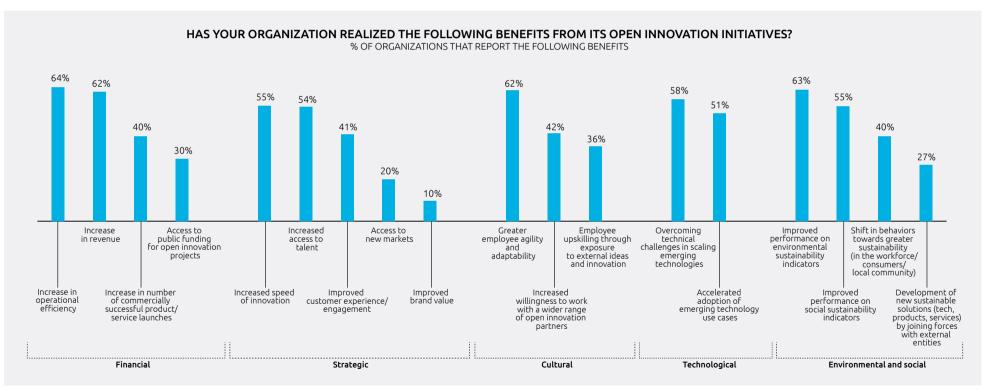
and a 5 percent increase in energy-trading and cost optimization. Wegaw is benefitting by building its data-acquisition pipeline and increasing its potential to scale into other geographies. As a result of the partnership, it has also been able to reduce its R&D and product-development risk while offering its products worldwide.¹⁰



60%

over 60% of organizations have experienced improved operational efficiency, increased revenue, greater agility, and improved environmental sustainability due to their open innovation initiatives.

Open innovation offers a wide range of benefits, including financial, strategic, cultural, technological, and sustainability-related benefits

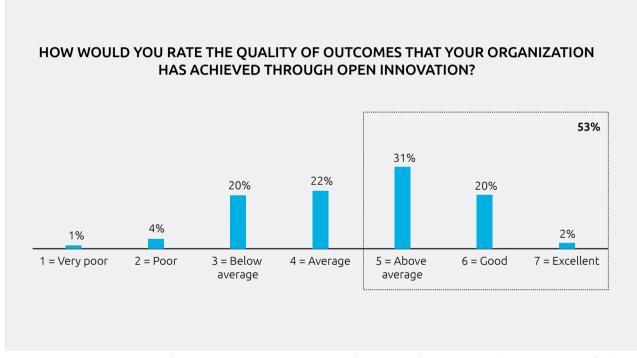


Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 business executives.

Just over half of organizations describe open innovation outcomes as "above average" or better

HOWEVER, ORGANIZATIONS EXPECT MORE FROM THEIR OPEN INNOVATION INITIATIVES

Our research shows that organizations have been unable to tap into the full potential of open innovation. Just over half (53%) of organizations have realized "above average" or better outcomes from open innovation, while the rest describe outcomes as "average" at best.



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 business executives.

The telecom and technology sectors have achieved the best outcomes from open innovation

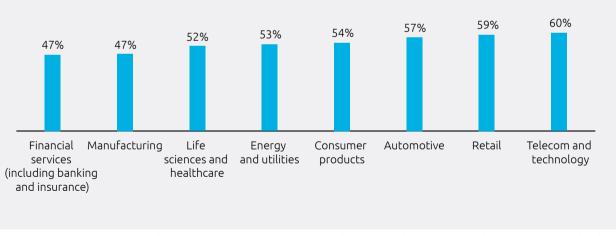
Telecom and technology organizations are most positive about the quality of outcomes of open innovation (60%), with a lower proportion of financial services organizations (47%) having achieved positive outcomes (see Figure 6).

60%

of telecom and technology organizations have realized "above average" or better outcomes from open innovation, compared to 47% of financial services organizations.

HOW WOULD YOU RATE THE QUALITY OF OUTCOMES THAT YOUR ORGANIZATION HAS ACHIEVED THROUGH OPEN INNOVATION?

(% OF ORGANIZATIONS REPORTING POSITIVE OUTCOMES, WHERE POSITIVE IMPLIES A RATING OF 5, 6, OR 7 ON A SCALE FROM 1 TO 7, WHERE 1 = "VERY POOR," 4 = "AVERAGE," AND 7 = "EXCELLENT")

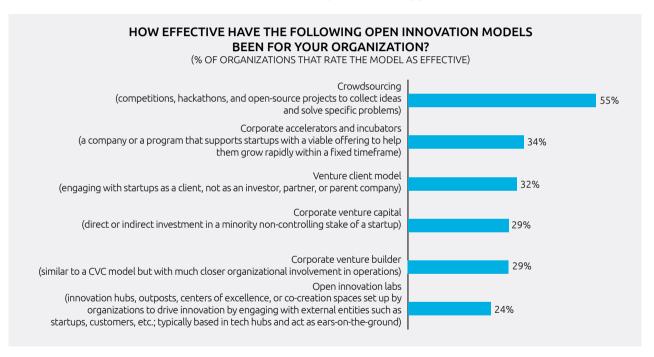


Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 business executives.

Most organizations struggle to implement open innovation models

MOST ORGANIZATIONS STRUGGLE TO EFFECTIVELY IMPLEMENT OPEN INNOVATION MODELS

As Figure 7 shows, apart from crowdsourcing (which 55% of organizations rate as effective), most open innovation models are yet to prove consistently effective for a majority of organizations.



Source: Capgemini Research Institute, Open Innovation Survey, February—March 2023; N=981 for crowdsourcing; N=992 for corporate accelerators and incubators; N=994 for venture client model; N=991 for corporate venture capital; N=992 for corporate venture builder; and N=716 for open innovation labs. All N values refer to large organizations with annual revenue exceeding USD 1 billion that have ongoing open innovation initiatives and have implemented the model. Percentages shown in the chart are based on the responses of 1,000 innovation executives.

Open innovation labs are the least effective, as Figure 7 shows. Our discussions with senior industry executives revealed that although labs are successful in sprouting interesting ideas and bringing in new perspectives, these do not translate into better outcomes for business teams as labs tend to operate in silos and are often not aligned with the organization's strategic priorities. Yet labs inspire business teams and help them envision innovative solutions. Organizations need exactly this to deal with the complex challenges of the future, but this will require finetuning the performance of labs through better business alignment.



"Our partnership with [German auto manufacturer] Daimler Truck and Traton on charging infrastructure is an interesting example of how we partner with competitors to address the complexities of climate change. In essence, we are forming partnerships across the value chain. Rather than risk losing alone, we want to win together."¹⁴



Karin SvenssonChief Sustainability Officer at Volvo Group.



ORGANIZATIONS ARE FAILING TO LEVERAGE NEW SOURCES OF INNOVATION EFFECTIVELY

Our research also shows that organizations have been unable to leverage new sources of innovation effectively. They are better able to derive outcomes when working with traditional partners such as customers and suppliers, rather than universities, industry consortiums, companies in other industries, government bodies and non-profits.

As Figure 8 shows, 45% of organizations say they have realized positive outcomes working with customers, followed by suppliers, at 40%.

45%

of organizations say they have realized positive outcomes working with customers, followed by suppliers, at 40%.

- BMW introduced a cinematic in-car entertainment experience in one of its models. This involved working with suppliers to redesign in-car layout to create a multi-sensory environment.

 According to Oliver Zipse, Chairman of the Board of Management and CEO at BMW: "The theater screen in the new BMW 7 Series is a good example of how we are also realizing digital innovations in collaboration with our suppliers. This highly exclusive private cinematic experience on wheels came out of our cooperation with Amazon and 3 other companies."11
- Apparel company Timberland recently launched a collaborative design innovation space called The Shed. The space allows Timberland, using feedback from independent designers, to move from concept to full 3D prototype in under five days.¹²

In contrast, only 33% of organizations say they have realized positive outcomes working with universities; only 31% say they have realized them by working with companies in other industries or with competitors; and only 25% say they have achieved them in partnership with non-profits.

Nestlé's Vitaflo team, for instance, has a long-standing partnership with the University of London and Great Ormond Street Hospital that has seen an innovative concept blossom into a marketable product. It began with a hypothesis about the potential impact of a ketogenic diet on a patient suffering from drug-resistant epilepsy. The eventual result was the launch of the K.Vita product in the UK in 2019, which demonstrated a 49% reduction in seizures during clinical trials.¹³

33%

of organizations say they have realized positive outcomes working with universities. 31%

say they have realized them by working with companies in other industries or with competitors **25**%

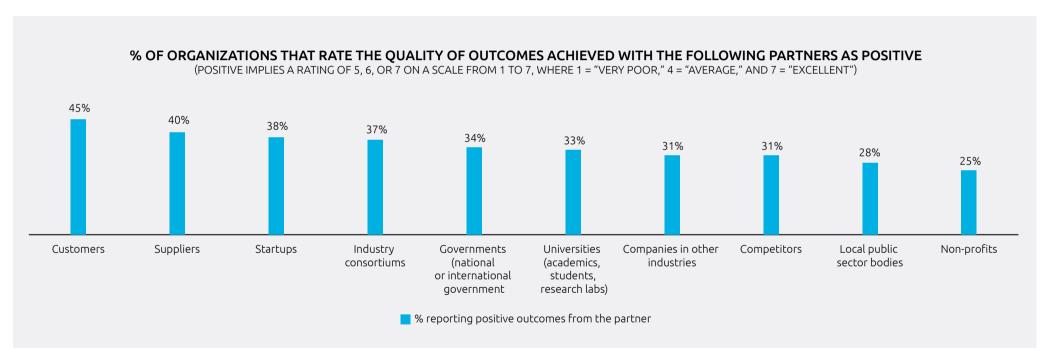
say they have achieved them in partnership with non-profits.

"All the solutions we look outside are focused on meeting our goal of achieving net-zero emissions by 2050. We are looking for solutions primarily in three fields: low-carbon processes and circular economy, including hydrogen and carbon capture, use and storage [CCUS]. Secondly, everything to do with renewable energies and advanced mobility, including e-fuels and advanced lubricants. And thirdly, digital technologies focused on optimizing our assets."



Sandra Blázquez Borrás Head of Open Innovation at Repsol.

Organizations struggle to get the right results with open innovation partners



Source: Capgemini Research Institute, Open Innovation Survey, February—March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 innovation executives.

STARTUPS, ACADEMICS AND NON-PROFITS ARE MORE SATISFIED WITH THE OUTCOMES OF OPEN INNOVATION THAN LARGE ORGANIZATIONS

While 53% of large organizations rate the outcomes of open innovation as positive, the startups, academics, and non-profits that partner with

large organizations are more frequently satisfied with the collaboration. As Figure 9 shows, 75% rate the quality of outcomes as positive (i.e., "above average" or better). While 76% of startups and 79% of academics report positive outcomes, only 66% of non-profits do so.

Overall:

- 77% of startups, academics, and nonprofits say that large organizations have become more amenable to embracing open innovation in the past few years
- 61% state that open innovation models are easier to adopt than in the past

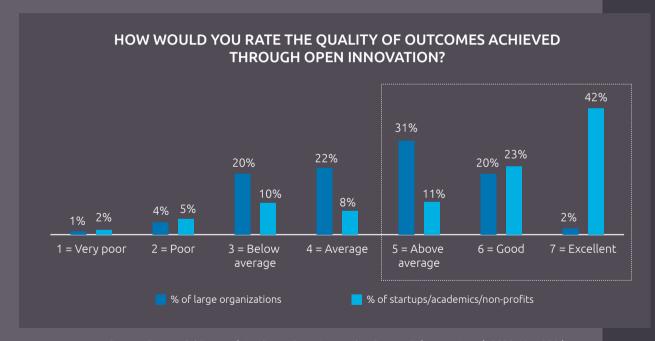
75%

of startups, academics, and non-profits that partner with large organizations on open innovation projects rate the quality of outcomes as positive. 77%

of startups, academics, and non-profits say that large organizations have become more amenable to embracing open innovation in the past few years. 61[%]

of startups, academics and non-profits state that open innovation models are easier to adopt than in the past.

Three-quarters of startups, academics, and non-profits view open innovation outcomes as positive (i.e., "above average" or better) compared to 53% of large organizations



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives (percentages shown in the chart are based on the responses of 1,000 business executives); N=500 startups, academics and non-profit entities that have worked on open innovation projects with large organizations (i.e., organizations with annual revenue of over USD 1 billion).

Startups, academics, and non-profits feel most satisfied with their partner organizations' flexibility and communication:

- A full 88% are satisfied with large organizations' willingness to "pivot" on ideas when necessary
- 75% state that large organizations communicate clearly and often on projects



Only a minority (22%) of organizations rate the outcomes from open innovation as "good" or "excellent" (see Figure 5). Our research shows that these organizations (referred to as "Leaders" in the figures that follow) take a bolder approach to open innovation compared with the others (the "Rest"), extending the scope and application in three key ways:

- Engaging more readily in adjacent and transformational innovation (i.e., going beyond innovating incrementally in existing business areas to targeting newer, and potentially riskier, business areas)
- Collaborating closely with innovation partners, including those not directly linked with their core business model
- Broadening the scope of open innovation to functions outside R&D/ product development

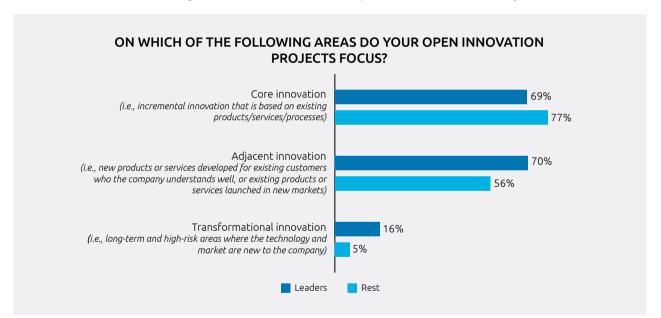
We examine each of these areas below.

ENGAGING MORE READILY IN ADJACENT AND TRANSFORMATIONAL INNOVATION

Organizations that have realized better outcomes apply open innovation not only to drive incremental improvements in core business areas but also to innovate in new, and potentially riskier, business areas. They do so to a greater extent than the rest. As Figure 10 shows, 70% of leaders engage in open innovation in adjacent business areas, compared to 56% of the rest. Further, 16% of leaders engage in open innovation in long-term and high-risk areas, compared to only 5% of the rest. Deutsche Telekom

understands the imperative to strive for sustainability and has decided it is worth taking bigger chances in the space. "We supported and guided the development of a fuel cell in collaboration with one university, two research institutes, and one startup. It's really far away from DT's core business, but it helps us to generate clean energy, when and where we have no grid," says Martin Kurze, Director, Research & Innovation at Deutsche Telekom's T-Labs unit.

Organizations that have realized superior outcomes innovate beyond core business areas



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=223 organizations in the "Leaders" category and N=777 organizations in the "Rest" category. The Leaders category comprises organizations that rate the quality of open innovation outcomes as 6 = good or 7 = excellent in Figure 5; the rest comprises organizations that selected a rating anywhere between 1 = very poor and 5 = above average (inclusive of both). All N values refer to large organizations with annual revenue exceeding USD 1 billion that have ongoing open innovation initiatives. Percentages shown in the chart are based on the responses of

"We supported and guided the development of a fuel cell in collaboration with one university, two research institutes, and one startup. It's really far away from DT's core business, but it helps us to generate clean energy, when and where we have no grid."



Martin Kurze
Director, Research &
Innovation at
Deutsche Telekom's
T-Labs unit.

COLLABORATING MORE CLOSELY WITH INNOVATION PARTNERS

Closer collaboration is a mark of open innovation leadership (see Figure 11). For instance, 65% of open innovation leaders work closely with startups, compared to only 52% of the rest.

Leaders are also more willing to explore new, perhaps unconventional/non-traditional innovation partnerships – for instance, with

companies outside their industries, or even with competitors. In more detail:

- 50% of leaders collaborate closely with companies from other industries compared to 39% of the rest
- 45% collaborate closely with competitors compared to 36% of the rest

 46% collaborate closely with local public sector bodies compared to 36% of the rest

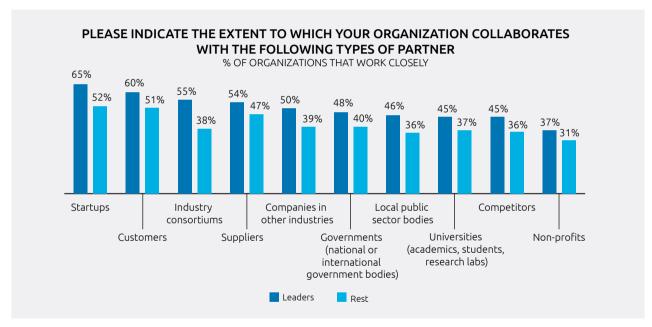
Collaboration with competitors and public bodies is especially critical in the context of sustainability, given that sustainability challenges are complex and systemic in nature.



65[%]

of open innovation leaders work closely with startups.

Leaders demonstrate more commitment to open innovation partnerships and more willingness to explore non-traditional partnerships



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=223 organizations in the "Leaders" category and N=777 organizations in the "Rest" category. The Leaders category comprises organizations that rate the quality of open innovation outcomes as 6 = good or 7 = excellent in Figure 5; the rest comprises organizations that selected a rating anywhere between 1 = very poor and 5 = above average (inclusive of both). All N values refer to large organizations with annual revenue exceeding USD 1 billion that have ongoing open innovation initiatives. Percentages shown in the chart are based on the responses of 1.000 innovation executives.



THE NETHERLANDS LEADS IN STARTUP COLLABORATIONS WHILE UK ORGANIZATIONS ARE SHOWING THE WAY WITH UNIVERSITIES



Figure.12

Geographical differences in open innovation

PERCENTAGE OF ORGANIZATIONS THAT COLLABORATE CLOSELY WITH THE PARTNERS LISTED BELOW

	Startups	Universities (academics, students, research labs)	Suppliers	Customers	Industry consortiums	Companies in other industries	Competitors	Governments (national or international government bodies)	Local public sector bodies (smaller government agencies with more local impact)	Non-profits
Overall	55%	39%	48%	53%	42%	42%	38%	41%	38%	33%
US	59%	43%	53%	57%	45%	45%	48%	47%	44%	38%
UK	63%	48%	57%	60%	44%	51%	37%	43%	45%	36%
France	47%	32%	36%	40%	32%	35%	27%	38%	27%	29%
Germany	51%	41%	51%	62%	41%	41%	38%	46%	37%	31%
Italy	59%	40%	48%	51%	44%	49%	44%	42%	36%	33%
Spain	52%	44%	48%	48%	50%	34%	32%	44%	46%	30%
The Netherlands	64%	30%	50%	56%	48%	40%	42%	30%	34%	32%
Sweden	42%	24%	44%	42%	28%	26%	32%	28%	36%	22%
<u> </u>	46%	42%	42%	52%	58%	44%	46%	42%	38%	44%
Singapore	50%	36%	46%	46%	38%	46%	26%	34%	34%	22%
Australia 💮	48%	36%	52%	52%	32%	38%	30%	42%	34%	36%
Japan	52%	34%	36%	48%	40%	32%	26%	34%	32%	22%

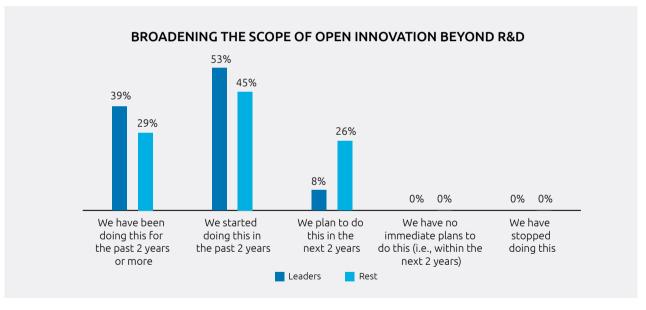
Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 innovation executives.

BROADENING THE SCOPE OF OPEN INNOVATION

Figure.13

Open innovation leaders go beyond R&D

Our survey shows that 92% of leaders have broadened the scope of innovation beyond R&D compared with 74% of the rest (see Figure 13). Given the complexities of the current business environment. which requires organizations to innovate collaboratively on multiple fronts, such broadening is vital. Christian Stadler, Professor of Strategic Management at Warwick Business School and joint author of Open Strateav: Masterina disruption from outside the C-suite (2021), emphasizes the need for extending open innovation to strategy development and sustainability challenges: "Where do you get new solutions to unfamiliar challenges? Especially on big auestions like sustainability, there will be a need to bring in non-traditional partners, including governments and non-profits. And even competitors – for example to solve challenges related to social justice."



Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=223 organizations in the "Leaders" category and N=777 organizations in the "Rest" category. The Leaders category comprises organizations that rate the quality of open innovation outcomes as 6 = good or 7 = excellent in Figure 5; the rest comprises organizations that selected a rating anywhere between 1 = very poor and 5 = above average (inclusive of both). All N values refer to large organizations with annual revenue exceeding USD 1 billion that have ongoing open innovation initiatives. Percentages shown in the chart are based on the responses of 1.000 innovation executives.

"Where do you get new solutions to unfamiliar challenges? Especially on big questions like sustainability, there will be a need to bring in non-traditional partners, including governments and non-profits. And even competitors – for example to solve challenges related to social justice."



Christian Stadler

Professor of Strategic Management at Warwick Business School and joint author of *Open Strategy: Mastering disruption from outside the C-suite* (2021)



Volvo Group, for instance, is working with competitors to address sustainability challenges. Karin Svensson, Chief Sustainability Officer at Volvo Group, says: "Our partnership with [German auto manufacturer] Daimler Truck and Traton on charging infrastructure is an interesting example of how we partner with competitors to address the complexities of climate change. In essence, we are forming partnerships across the value chain. Rather than risk losing alone, we want to win together."



Our research shows that organizations often lack a systematic approach to driving open innovation initiatives. Only 54% of organizations say they are currently satisfied with their open innovation strategies and processes.

54%

of organizations say they are currently satisfied with their open innovation strategies and processes.

ESTABLISH A FOUNDATION FOR OPEN INNOVATION SUCCESS

Begin by ensuring that your organization has the right foundation to enhance outcomes from open innovation.

Positioning open innovation at C-suite level, setting clear objectives for open innovation, fostering the right culture and mindset, and building alignment of innovation and business teams are the foundational elements of open innovation success.

C-suite commitment is key to ensuring access to resources and driving organization-wide adoption of open innovation practices. "Clear visibility of the innovation units in the organization, an adequate budget and C-levels committed and supportive are what should never lack to have an organization succeeding in running open innovation," says Angelo Rigillo, Head of Open Innovation, Hubs and Startups at the Enel Group.

Next, set clear objectives for your initiatives to ensure they are aligned with the organizational vision and strategy.

Currently, 58% of organizations cite lack of alignment of initiatives and organizational vision and strategy as one of the top five challenges facing open innovation. The objectives should guide you in selecting the correct partners and setting expectations when engaging with outside experts.

Thirdly, develop a mindset of shared value creation, co-learning and risk-taking. Strong partnerships are founded on fair value exchange. This also involves having an open attitude to data and knowledge sharing in order to work towards a common goal. According to a senior innovation executive from a European life sciences organization: "For open innovation partnerships to really work, they need to be set up in such a way that every partner has a clear benefit. It's important for organizations to consider the collective benefit and collective impact of the collaboration and not focus solely on the benefits to them."

"We have leveraged on innovation managers in all the business lines, reporting to the Chief Innovability Officer® [head of innovation and sustainability at Enel Group] as well as to the head of their business line, and working for objectives and targets connected to both business and innovation."



Angelo Rigillo
Head of Open Innovation,
Hubs and Startups at the
Enel Group.

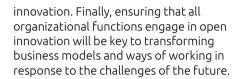
Fostering a culture that incentivizes risk-taking is crucial to the success of open innovation. Nearly two-thirds (64%) of organizations cite the lack of such a culture, making it the top challenge highlighted by our survey. Organizations need to value experimentation and progress over unrealistic attempts to achieve perfection. "Risk is an inherent aspect of innovation. Creating a safe environment for the innovation team to operate in, where they have the freedom to make mistakes and fail, is a key success factor for open innovation," says Nicolas Safis, Head of Innovation and Venture Capital Funds at Carrefour.

Finally, ensure that you build strong links between innovation and business to drive support for open innovation. At Enel, the organizational structure fosters collaboration between and alignment of innovation and business teams. Enel's Angelo Rigillo explains: "We have leveraged on innovation managers in all the business lines, reporting to the Chief Innovability Officer® [head of innovation and sustainability at Enel Group] as well as to the head of their business line, and working for objectives and targets connected to both business and innovation."

IMPLEMENT SPECIFIC ACTIONS TO FURTHER ENHANCE OUTCOMES

Once the foundational elements are established, organizations should consider specific actions to further increase the effectiveness of open innovation initiatives. Organizations vary in terms of maturity of open innovation processes and relationships, and desired outcomes. There's no "one size fits all" solution to ensure favorable outcomes in every case. However, an organization can increase its chances of success in open innovation through the following seven actions.

Embrace bold open innovation. A bolder approach drives better outcomes. Organizations need to be more open to collaboration with a wide range of partners, beyond their customers and suppliers. This is especially important when addressing sustainability challenges. Organizations should also set more ambitious goals for open innovation, looking beyond existing products, services, and processes and exploring opportunities for adjacent and transformational



- Adopt a tailored approach for each category of partner. There are significant differences in the way an academic institution operates, compared to a startup or a non-profit institute. Each has a distinct way of working, and particular needs and expectations of partnerships and their outcomes. We recommend creating a facilitator team to help with onboarding partners. Facilitators can act as a sounding-board for setting expectations and rules of engagement, and as a single point of contact for highlighting issues at both ends, strengthening partner relations.
- Set the right metrics for success. Core innovation cannot have the same success metrics as transformational innovation. Set the right returns expectations with



external partners and align priorities. Look beyond financial returns and track wide-ranging benefits such as agility, the learning ability of employees, and positive impact on brand.

 Ensure early involvement of business teams and their participation in each **initiative.** Transfer of prototypes to business teams is often a key challenge in realizing value from open innovation initiatives. "When you have developed something from a prototype to a viable proposition, and then you need to scale it up, you are now looking to people who were not part of the initial process to deliver it. And that can be quite a challenge because it's one thing to create a new kind of protein or a new drink in a lab, and quite another to modify the processing line to ship thousands of cases a day, "suggests Aamir Mehdi, Director, Supply Chain at Fonterra.

The involvement of business teams from the earliest stages is key to instilling crossfunctional support for subsequent stages. The CEO and co-founder of a startup that uses AI to enhance customer experience "At Carrefour, we have dedicated processes to engage with startups. We have light legal, technical, and procurement processes to reduce time-to-market while keeping agility when it comes to working with startups. All of these have brought down the time it takes to onboard startups from six months to two weeks."



Nicolas SafisHead of Innovation and
Venture Capital Funds at
Carrefour.

at retail stores, says: "Usually, when we approach a large organization, they send us to their innovation units, which are more focused on experimentation. If the business side is involved up front, there is faster implementation and scaling of solutions."

Organizations could also second kev executives to innovation teams. exposing them to different functional methodologies and perspectives, and giving them first-hand experience of engaging with external partners. A senior innovation executive from a European life sciences organization says: "Many organizations are installing innovation hubs, labs, or centers of innovation. One concern is that these units may not be adding value, as they lack a close link with the operational business. We have set up a team with slots for people from different departments coming in for 6-12 months to work on projects part-time."

• Develop processes to onboard innovation partners rapidly. Almost three-quarters (74%) of the startups, academics, and non-profits that we surveyed say they spend a lot of

74%

of the startups, academics, and non-profits that we surveyed say they spend a lot of time navigating processes at large organizations, rather than undertaking meaningful co-innovation work.

time navigating processes at large organizations, rather than undertaking meaningful co-innovation work. Of these, 89% say that IT/cybersecurity processes at large organizations pose significant barriers, while 81% cite legal processes, and 75% procurement processes.

For co-innovation to happen efficiently, organizations need to develop agile procurement, legal, and IT/cybersecurity processes. Carrefour's Nicolas Safis comments: "At Carrefour, we have dedicated processes to engage with startups. We have light legal, technical,

"When you have developed something from a prototype to a viable proposition, and then you need to scale it up, you are now looking to people who were not part of the initial process to deliver it. And that can be quite a challenge because it's one thing to create a new kind of protein or a new drink in a lab, and quite another to modify the processing line to ship thousands of cases a day."



Aamir MehdiDirector, Supply Chain at Fonterra.

and procurement processes to reduce time-to-market while keeping agility when it comes to working with startups. All of these have brought down the time it takes to onboard startups from six months to two weeks."

 Adopt technology enablers to manage and coordinate open innovation initiatives. Our research revealed that organizations frequently lack visibility into their open innovation initiatives, which can lead to duplication of effort and missed opportunities. Technology platforms and tools have a key role in helping organizations address such inefficiencies. However, lack of access to such tools and platforms is holding back open innovation initiatives for 55% of organizations in our survey.

Thomas Girard, CEO and co-founder at Bloomflow, an innovation-management platform provider, says: "Unlocking the power of data is crucial to transforming open innovation processes. The ability to easily extract insights on project success rates with specific partners is key to improving open innovation outcomes. Innovation management platforms serve as a catalyst for an open innovation

"Unlocking the power of data is crucial to transforming open innovation processes. The ability to easily extract insights on project success rates with specific partners is key to improving open innovation outcomes. Innovation management platforms serve as a catalyst for an open innovation strategy, helping align organizations and their partners while uncovering valuable painpoints."



Thomas Girard

CEO and co-founder at Bloomflow,
an innovation-management platform
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strategy, helping align organizations and their partners while uncovering valuable painpoints."

Raphael Guillet, CPO and co-founder at Bloomflow, adds: "Innovation isn't magic. It requires a framework, processes, and a platform for measurable success. With collaboration and knowledge-sharing at its core, open innovation is a driving force for transformative achievements."

• Disseminate learnings from open innovation across the organization.

A senior innovation executive at a large global consumer products organization told us: "We have a centralized website where people go for training and best-in-class ways to build contracts, external-engagement best practices, building open innovation strategies, etc. This website is also used by corporate R&D and business units to access company experts for further information or coaching."

"Innovation isn't magic. It requires a framework, processes, and a platform for measurable success. With collaboration and knowledge-sharing at its core, open innovation is a driving force for transformative achievements."



Raphael Guillet
CPO and co-founder at Bloomflow, an innovation-management platform provider.

CONCLUSION

Open innovation and the collaborative ecosystems that nurture it are proving to be a critical source of value. Organizations have been engaging in open innovation for long but have been unable to fully harness its potential. Open innovation is no longer an ad-hoc, good-to-have activity – and organizations see it in that light. Given how critical open innovation is becoming, organizations need to approach it with renewed focus.

Open innovation leaders have extended their partnerships outside the R&D function, and beyond their core areas of activity. Organizations need to ensure internal alignment of purpose

across functions, and then channel resources towards the areas of the partner ecosystem that can make the greatest difference to their business models.

Further, organizations should adopt lightweight processes to onboard open innovation partners more easily, as well as technology solutions that can support the orchestration of collaborative innovation. As the depth of collaboration and number of ecosystem partners increase, the innovation possibilities will multiply, ultimately driving systemic value at scale.

+ RESEARCH METHODOLOGY

This research seeks to understand how open innovation has impacted organizations, how significant it is to their future, and what are the key challenges.

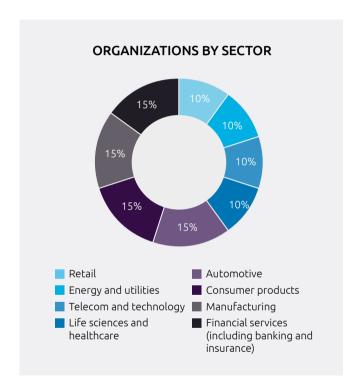
Survey of executives from large organizations

We surveyed 2,000 senior executives (director level and above) from 1,000 large organizations (with annual revenue of over USD 1 billion each) that have ongoing open innovation initiatives. We surveyed two respondents from each organization – one from the innovation function (or equivalent) and one from a business function (including R&D/product development, strategy, marketing, technology/IT, supply chain, sustainability, operations, and sales). The organizations came from a range of sectors, including automotive, consumer products,

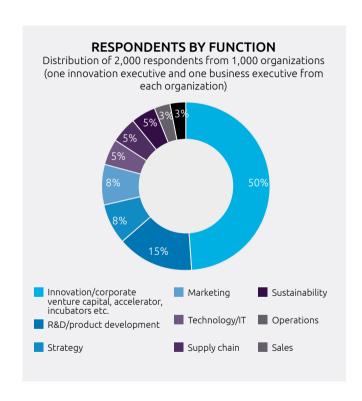
retail, manufacturing, financial services, energy and utilities, telecom and technology, and life sciences and healthcare. They are based in 12 countries across North America, Europe, and APAC.

The distribution of respondents and their organizations is provided below.









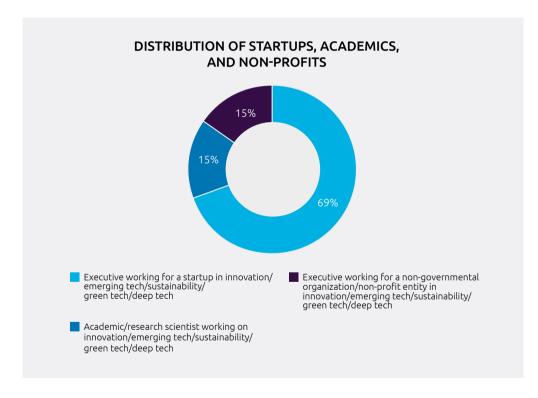
*percentages do not add up to 100 due to rounding

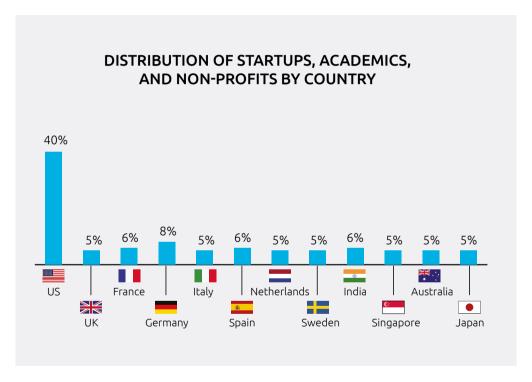
Source: Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives. All organizations have annual revenue exceeding USD 1 billion.

Survey of startups, academics, and non-profits

We also surveyed 500 startups, academics, and non-profit entities that have worked on open innovation projects with large organizations (i.e., organizations with annual revenue of over USD 1 billion). The objective of the survey was to understand respondents' experiences of working on open innovation projects with large organizations, the benefits they have derived from this and the challenges they face, and their expectations of large organizations.

The distribution of respondents is provided below.





In-depth interviews

We complemented the surveys with in-depth interviews with 32 senior industry executives and experts.

The study findings reflect the views of the people who responded to our online questionnaire for this research and are aimed at providing directional guidance. Please refer to the methodology for details of respondents and get in touch with a Capgemini expert to understand specific implications.

*percentages do not add up to 100 due to rounding

Capgemini Research Institute, Open Innovation Survey, February–March 2023; N=500 startups, academics and non-profit entities that have worked on open innovation projects with large organizations (i.e., organizations with annual revenue exceeding USD 1 billion).



Figure.A1

Challenges to the success of open innovation



Source: Capgemini Research Institute, open innovation survey, February–March 2023; N=1,000 large organizations that have ongoing open innovation initiatives.

All organizations have annual revenue exceeding USD 1 billion. Percentages shown in the chart are based on the responses of 1,000 business executives.

+OPEN INNOVATION ECOSYSTEM AT CAPGEMINI

Our experience in emerging technology, application of innovation and investment in ventures means we have developed an agile and resilient model to help clients navigate their challenging markets and unlock the potential of innovation to get the future they want.

We rally partners who bring ideas to life and others who make them commercially viable. We curate the strongest network of partners including startups, academics, scientists, and technology talent throughout the world to co-create and deliver value.

WE STAY AHEAD OF THE WAVE,

by tracking emerging signals and preparing Capgemini for the next advances in technology.

- Global orchestration of all Group innovation efforts
- Capgemini Research Institute (19 studies published in 2022)
- TechnoVision, and technology radars, to inform leaders' responses to current trends and future business technology scenarios
- Highly qualified market intelligence from the Venture Capital (VC) industry
- Academic partnerships (including Stanford University, Oxford University, Massachusetts Institute of Technology, INSEAD, Nobel Prize Outreach and many more).

WE APPLY TECHNOLOGY TO BUSINESS USE CASES

to achieve real, tangible outcomes.

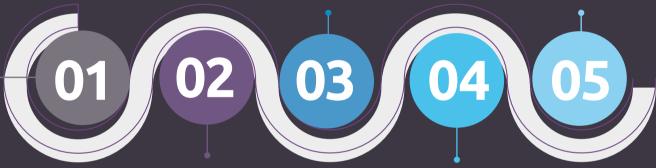
- 23 Applied Innovation Exchanges to co-innovate with our clients and partners
- Capgemini Ventures fosters new innovations, ideas, and solutions from the brightest startups, including a fund to invest where we find highly promising opportunities.

WE DELIVER AT SCALE

.......

to help our clients transform in depth.

- Proven expertise in innovation with the power of data and intelligence built in
- ~150 Centers of excellence
- A global ecosystem of technology partners, including the 10 biggest technology companies worldwide
- 50 local and global delivery centers
- The mechanisms to ensure organizations implement a culture of continuous improvement to thrive in the future.



WE DECODE AND TEST TECHNOLOGIES.

to act as filter for enterprises, removing hype from true and meaningful evolutions.

- Every year we assess 1,000+ technologies and solutions to provide valuable insights that shape strategies, roadmaps and transformation plans
- 90+ research labs including those dedicated to Quantum Technologies, Metaverse, and Artificial Intelligence.

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by co-creating and building unique solutions. The nature of our approach varies depending on the impact level and the engagement model.

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- Corporate Ventures and Business Ventures capability investing in promising B2B startups worldwide and engineering new ecosystems to take advantage of technology evolution
- Applied Innovation Exchange specialization to draw on deep awareness of technologies and sectors to help clients see, engage with, and embrace the future.

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Where we test and create new technologies and develop capabilities to make the future possible. Includes industry leading labs focused on breakthroughs in artificial intelligence, metaverse, quantum technologies, and synthetic biology.

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Where we combine strategy, technology, science, creative design, and engineering expertise with an inventive mindset to reinvent businesses.

CENTERS OF EXCELLENCE

Where we develop go-to-market strategies for clients; help sales teams prepare proposals for clients; support communication towards a common vision; and assist key delivery phases. Includes industry centers of excellence for deep sector value.

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LOCAL & GLOBAL DELIVERY

Where we bring together the Group's services at all levels and provide a common set of tools across the globe to make our client's vision a reality. Includes delivery centers.

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2022 global revenues of €22 billion.

fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in