



LUXURY & TECHNOLOGY

Artificial Intelligence: The Quiet Revolution

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Summary

- ▶ Since analytical artificial intelligence was first used in the luxury market more than five years ago, adoption of AI solutions has remained targeted and quite limited. On average, fewer than two of the 20 use cases examined in our study have been adopted by members of the Comité Colbert, the trade association for the French luxury industry, and none have been adopted by more than 30% of these luxury *Maisons*. The use cases supported by analytical AI are among the most widely deployed by the *Maisons*.
- ▶ With numerous pilots underway, AI adoption is set to accelerate over the next 12–24 months: Each *Maison* is currently testing or planning more than five additional use cases.
- ▶ There are significant disparities in the level of AI adoption, depending on the size of the *Maison*: Large ones have deployed three times as many use cases as others. However, the gap should gradually narrow with generative AI's rollout, as it is more accessible and less costly than analytical AI. On average, a large *Maison* is testing or planning 5.8 use cases, compared with 5.3 at small and medium-sized rivals.
- ▶ The barriers to AI adoption cited by *Maisons* mostly relate to expertise and resources (an issue for 55% of *Maisons* in our study), data management concerns (an inhibiting factor for about 30% of respondents), and risks related to intellectual property rights, especially for generative AI solutions.
- ▶ Of the four strategic objectives served by AI—operational efficiency, customer relations, augmentation of teams, and enrichment of creative functions—use cases linked to operational efficiency are most popular: 60% of *Maisons* have adopted or are testing AI-based sales forecasting solutions and the equivalent proportion is 50% for stock allocation.
- ▶ AI is also an effective lever to bring *Maisons* closer to their customers, by using, for example, personalized content generation tools or customer segmentation tools, beyond the enhancement of pre-existing solutions for clienteling (the building of long-term relationships with key customers).
- ▶ The industry is also reflecting on how to use AI tools to augment teams by freeing up time and focusing energies on the most valuable tasks. However, implementation remains very limited at this early stage of the technology's maturity.

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- ▶ Luxury *Maisons* show the most reserve when it comes to using AI within the creative process. With an adoption rate of less than 5%, acceptance remains limited. Those *Maisons* that are beginning to explore the use of AI in this field are doing it in a way that doesn't question the role and contribution of their creative director, but rather enlarges their sources of inspiration and accelerates visualization of future products.
- ▶ To seize the value creation opportunities offered by AI, *Maisons* have a number of imperatives. They need to put AI at the heart of executive committee business priorities, measuring and sharing its impact in an impartial way; accelerate the modernization and harmonization of tech and data foundations; strengthen their capabilities for handling unstructured data; set up robust governance to ensure fluid coordination between business- and technology-oriented teams; and navigate the delicate process of roadmap prioritization and funding. Lastly, showing clear support for human talent (during role redefinition, training, communication, etc.) will be key to fostering buy-in and successfully integrating AI tools into a *Maison's* day-to-day activities.
- ▶ The potential of AI for the luxury sector appears to be huge, and the number of ongoing pilots suggests that adoption levels will at least double soon. However, each *Maison* must define its own field of application for AI, ruling out uses that would diminish its distinctiveness or harm the transmission of institutional *savoir faire*. While convinced of AI's power, the industry wants it to stay discreet, so that technology remains above all at the service of the authenticity, exclusivity, and intimacy that is central to luxury's appeal.

Introduction

Are luxury and artificial intelligence intrinsically opposed? At first glance, it would seem so. Luxury is synonymous with excellence, authenticity, rarity, and exceptional expertise passed through the ages. AI, on the other hand, is highly disruptive, surprising everyone with its potency and speed, constantly redefining what's possible. The former offers beauty of gesture and refined service, the latter can shrink time and transcend reality. While luxury embodies the elegance of suspended time, artificial intelligence symbolizes perpetual revolution and acceleration of the present.

Two scenarios could emerge from this contradictory situation: an outright rejection of artificial intelligence by the luxury industry, or, conversely, an irresistible attraction born of opposition. The reality, as is often the case, is more complex.

First, artificial intelligence is not an entirely new phenomenon for the luxury goods sector, which began to embrace it in the late 2010s in its analytical—rather than generative—incarnation. This gradual ramp-up provided *Maisons* with the time to observe the magnitude of the profound and lasting transformation represented by artificial intelligence.

What's more, even though it's tempting to view it in the context of the historical antagonism between luxury and technology, artificial intelligence actually appears to be a catalyst for the successful integration of technological innovation at the heart of the luxury sector.

Balancing the possibilities offered by AI, the growing demands of their customers, and the need to preserve their heritage, *Maisons* must shape their own implementation model and define precise boundaries for AI. The technology should be deployed when it is a lever for differentiation and offers real added value. Its integration should augment—not replace—human teams, nor should it distort the relationship between the customer, brand ambassadors, and the products themselves. This is how this revolution unfolds discreetly, respecting the traditions and authenticity that are at the heart of luxury.

Finally, far from being antagonistic, luxury and artificial intelligence can complement and enrich each other. By combining tradition and innovation, refinement and technology, the authentic and the artificial, they pave the way towards fascinating new possibilities, where artisanal excellence meets digital avant-garde.

This report offers a fresh look at the quiet revolution offered by AI when harnessed to the excellence and uniqueness of luxury *Maisons*. Our ambition is to provide an inventory of the level of acceptance and adoption of artificial intelligence by luxury brands. Our report also aims to inspire by highlighting use cases that could transform the daily lives of artisans and sales ambassadors, as well as the *Maisons*' relationship with their customers. These are just some of the keys that will enable the luxury sector to take part fully in one of the most structural innovations of our era.

“

The rise of generative AI is an inescapable and enduring trend that will impact our future and will not fade away like Web3 or the metaverse.”

—Delphine Tour Helin,
Global Retail Services Director,
Yves Saint Laurent Beauté

AI terminology

Artificial intelligence refers to the ability of a machine to reproduce activities characteristic of human intelligence, such as reasoning, analysis, synthesis, and creativity. There are several forms of AI, but we will focus on the two main ones: analytical AI and generative AI.

Analytical AI: using data to take better decisions

Stimulated by the advent of Big Data in the early 2000s, analytical AI experienced a significant boom in the 2010s, thanks to the explosion of machine learning. Analytical AI encompasses approaches using specialized languages to generate predictive models aimed at estimating one or more variables, such as a score or a price. Structured data are compiled and analyzed by AI to produce tools to aid decision making. The varied uses include classification, prediction, recognition, and evaluation.

However, this approach comes with significant barriers to entry. To be relevant and beneficial to a company, an analytical AI tool needs enough reliable customer and product data, available across several channels, as well as relevant and precise use cases.

Furthermore, the development of these solutions requires significant investment as well as specific in-house skills, notably those of data scientists and machine learning engineers, to develop the models and update them. Alternatively, *Maisons* can choose to rely on analytical AI applications provided by major technology players.

Generative AI: creating new content

Generative AI has grown by leaps and bounds with the massive public use of ChatGPT since its launch in November 2022. Simultaneously, specialized players (such as Anthropic and Mistral) and tech giants (such as Google and Amazon Web Services) have launched similar solutions, enriching the debate around this topic.

The impressive growth of generative AI, one of the fields of machine learning, has been powered by foundation models. This new type of architecture can be applied to any media (images, audio, etc.), but is most commonly used with text, through large language models. These models can create new data or content by imitating or extrapolating from preexisting information. They are designed to generate, from structured or unstructured data, various types of content such as summaries, translations, images, text, music, or natural language interactions.

The prohibitive cost of training these models explains why companies are turning to existing off-the-shelf models. Most software publishers have also already begun to integrate generative AI capabilities into their products.

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The main advantage of generative AI lies in its accessibility: Companies can deploy their existing data teams to frame model behavior using prompts and link it to their internal data. However, this technology requires clear rules of use to limit ethical, security, and intellectual property risks.

Convergence between analytical AI and generative AI

Generative AI will increasingly enable teams to perform complex analyses automatically, thanks to networks of autonomous agents. In the future, these agent networks could coordinate analytical AI and generative AI models using an integrated approach that allows the complementary benefits of each to be leveraged.

While analytical and generative AI are currently treated separately, with specific use cases, we anticipate that the two technologies will eventually converge, with an integrated roadmap and use cases, to the point where the current distinction between analytical and generative AI will gradually be forgotten.



Part 1: The beginnings of a profound transformation for the luxury sector

Rapid adoption of artificial intelligence within some B2C sectors

Some sectors were prompt to use AI to transform their business models and activities. One example is financial services, a pioneer in digital transformation. Spending on IT in financial services accounts for about 8% of revenues, compared with 1.5%–4% in the retail universe, with luxury goods at the upper end of this range.

Retail has also been quick to deploy solutions incorporating AI—for example, to streamline and enhance the customer journey, through innovations such as Hopla, the chatbot deployed by Carrefour in June 2023 to smooth the online shopping experience.

This awareness of AI's potential, followed by the rapid deployment of high-impact use cases, is partly explained by the significant investments made in recent years. Across all sectors, about \$50 billion was invested in transactions related to generative AI between 2021 and 2023, compared with about \$10bn in the metaverse.

Hopla: deploying AI in the Carrefour customer journey

With Hopla, Carrefour puts AI in the hands of its customers. Accessible from the Carrefour homepage, the chatbot helps customers fulfill their shopping need, whether that be sticking to a budget, meeting dietary constraints, or finding menu ideas. A typical prompt might read: “I need to prepare dinner for four people this Friday with a budget of €30.” Hopla would suggest suitable recipes and list the necessary ingredients, enabling these items to be added to the basket with a simple click and then delivered to the customer’s doorstep. On top of that, Hopla provides tips on how to reuse leftovers and cook new dishes.

The impact for the consumer is immediate: In just a few seconds, the chatbot fills the shopping basket, saving time while suggesting new ideas. Hopla also aims to promote healthier food, recommending seasonal vegetables and contributing to waste reduction by optimizing quantities. The tool can also monitor products already available in the user’s fridge.

Launched in June 2023, Hopla was developed with Bain & Company and Microsoft, in partnership with OpenAI. “We are the first to use this technology in France,” stated Alexandre Bompard, Carrefour chairman and CEO, at the project launch. Hopla is one of Carrefour’s many generative AI initiatives. It has also used the technology to enrich more than 2,000 product descriptions on its website and to optimize its purchasing processes, by generating drafts for tenders, among other things.

In the luxury sector, adoption is still limited

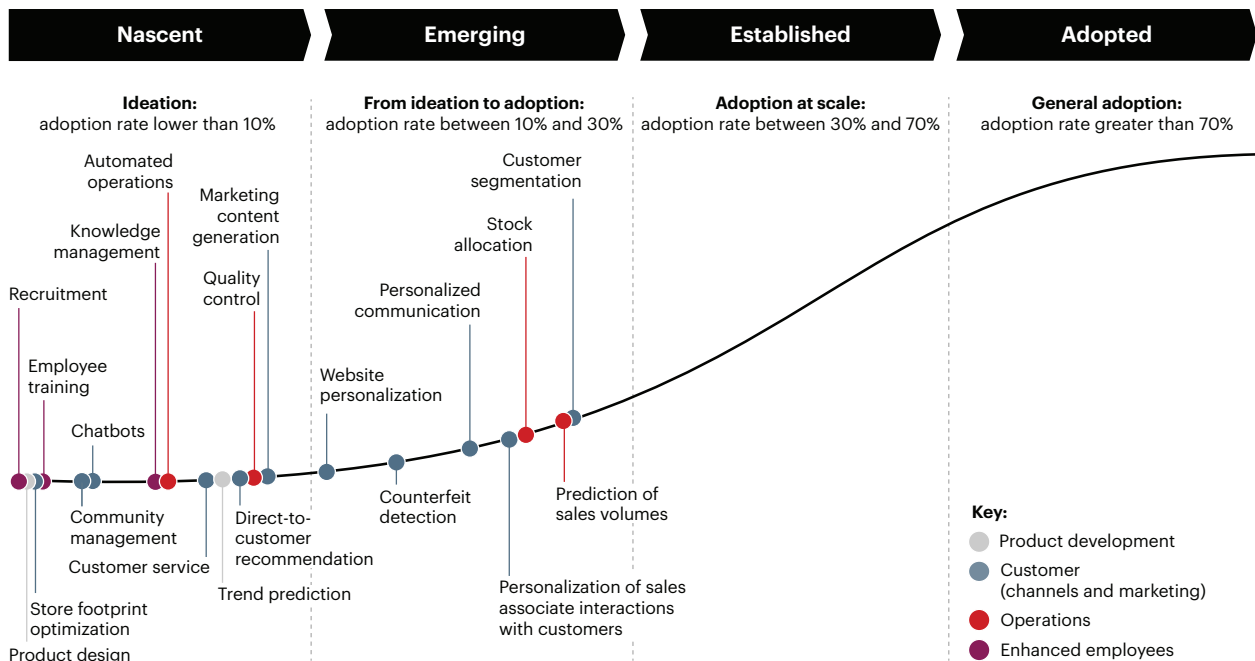
In contrast to these pioneering sectors, the luxury industry has been, on average, more of an observer when it comes to AI. Its embrace of the main analytical or generative AI use cases is still limited. On average, the Comité Colbert members we surveyed have adopted 1.6 of the 20 use cases analyzed in our study. None of the use cases has been deployed by more than 30% of the *Maisons* surveyed.

Only four use cases have surpassed the 20% adoption mark: customer segmentation, sales volume prediction, stock allocation and personalization of interactions between sales associates and customers. As one might expect, these use cases rely on analytical or predictive AI, which is increasingly enabling the compilation and analysis of data generated across the *Maisons*’ value chain.

In larger luxury groups, analytical AI is approaching a mature stage of deployment at scale and continuous improvement of numerous use cases. “We are no longer in a race towards innovation, but in a phase of consolidation to deploy our analytical AI solutions at a larger scale. We have undertaken educational work with our country business units to onboard them on our ‘beauty tech’ services that are business engines. We have, for example, deployed our skin diagnosis tools in all our main points of sale. At the same time, we are continuing to improve existing solutions to better integrate them into our customers’ and beauty consultants’ journeys,” confirms Delphine Tour Helin, global retail services director at Yves Saint Laurent Beauté.

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Figure 1: Level of adoption of AI use cases in luxury industry (excluding tests)



Source: Comité Colbert and Bain & Company survey (May–July 2024)

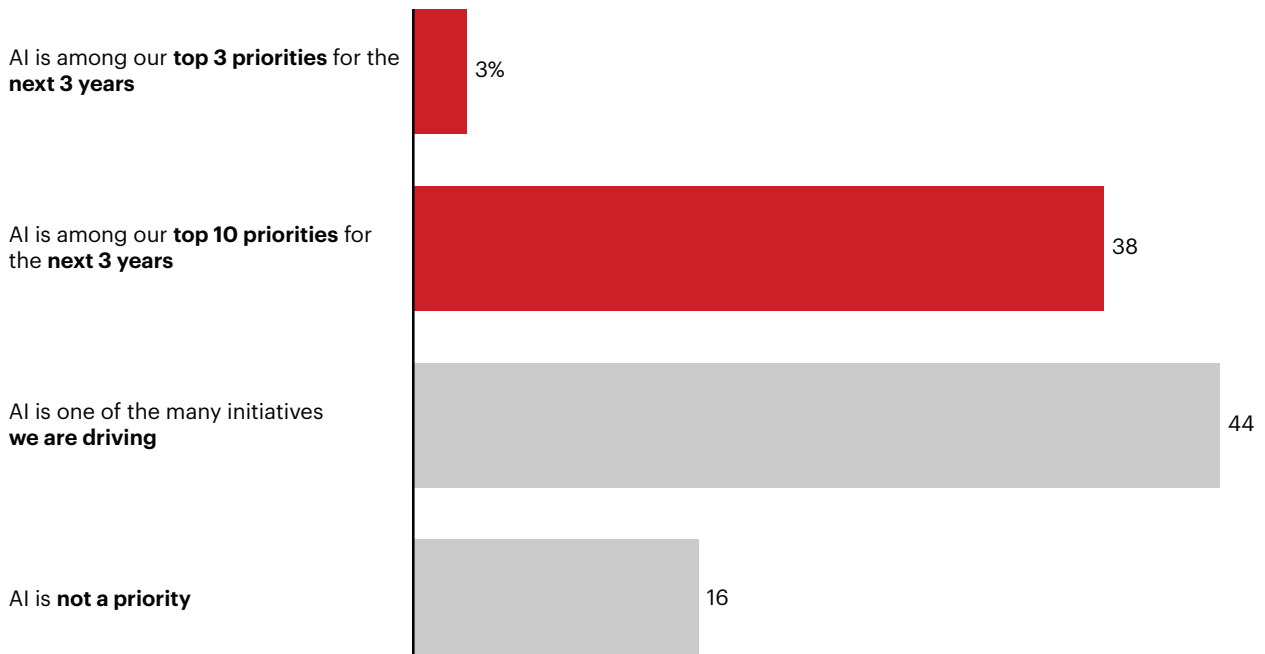
This statement is also true for LVMH, which has developed a sales forecasting solution as one of its first applications. LVMH is working to adjust this solution to certain sectors not yet covered—such as wines and spirits, which have different distribution models—and thus further increase its deployment, which today covers more than half of the group’s sales.

A revolution in the making

While adoption is still low and very much focused on a few applications, the luxury sector is far from ignoring the AI phenomenon. The subject is now a regular item on the agenda of management committees: 41% of the *Maisons* surveyed cite AI as one of their top ten strategic priorities for the next three years and another 44% have AI on their agenda, even if not (yet) on their top ten priorities list.

The prospects for accelerating AI adoption are also promising: *Maisons* are piloting or planning an average of 5.4 additional use cases (compared to the 1.6 already adopted) out of the 20 analyzed in our study.

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Figure 2: Extent to which AI has been prioritized by *Maisons*, by proportion of respondents citing

Source: Comité Colbert and Bain & Company survey (May–July 2024)

Under conventional assumptions of conversion between planning and adoption, two-thirds of the use cases analyzed could become “established”, i.e., adopted by more than 30% of the *Maisons*, within 12–24 months.

While recent deployments have focused on a few core use cases in operations and customer relations, AI pilots and studies are tackling fresh uses in these areas and extending into new fields of application.

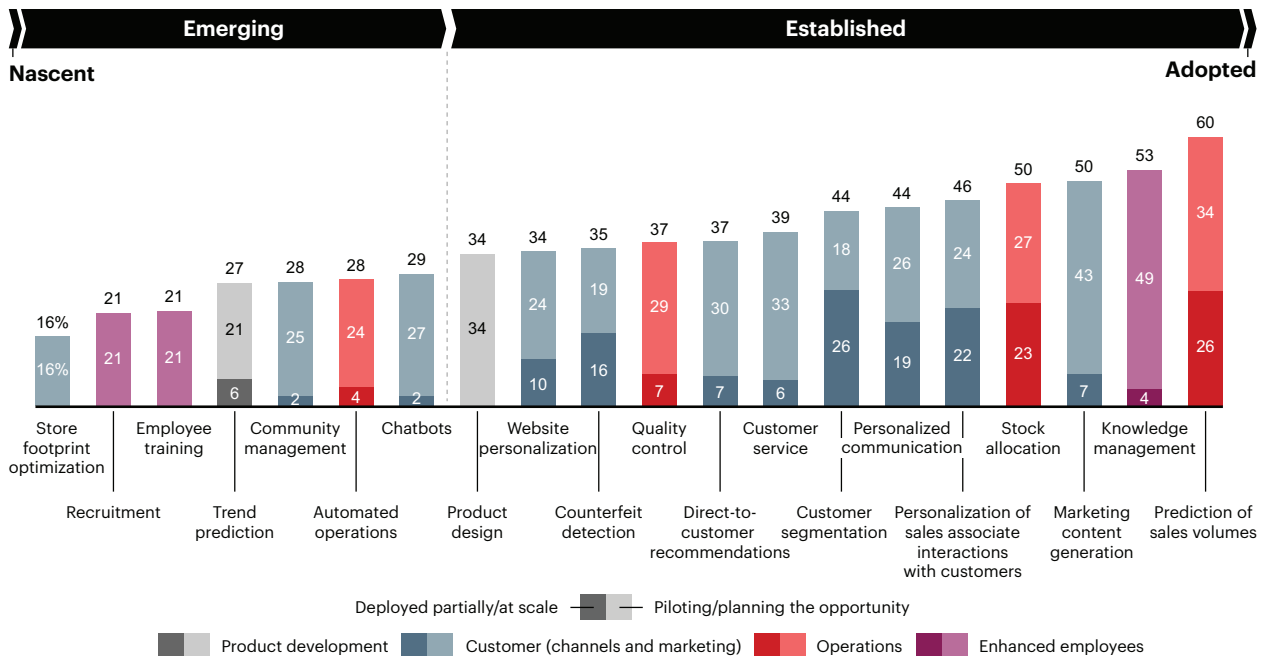
For example, knowledge management—a non-luxury-specific skill that enables cross-functional access to information for all employees—could become a leading AI use case: It could be adopted by more than 50% of *Maisons* within two years. Today, the adoption rate is quite low as *Maisons* are waiting to benefit from the experience of other sectors and to identify proven AI solutions.

The luxury sector is also beginning to focus on the highly sensitive area of product creation and development: About 35% of the brands and groups surveyed are testing or studying the use of AI to support product design (for prototype visualization, for example).

This wave of pilots and tests suggests the beginning of a profound and lasting transformation in the sector, like the digital revolution that began a decade ago with the rise of e-commerce and omnichannel strategies. The AI revolution could affect all parameters of the business, from core customer engagement functions to support functions and the production line.

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Figure 3: Proportion of *Maisons* that have adopted or are testing various AI use cases



Source: Comité Colbert and Bain & Company survey (May–July 2024)

In contrast to the race towards the metaverse and non-fungible tokens (NFTs) a few years ago, luxury players seem to be adopting a posture of intensive monitoring of AI’s potential applications, while the most advanced take a considered approach of proactive exploration.

Significant disparities by *Maison* size are expected to diminish

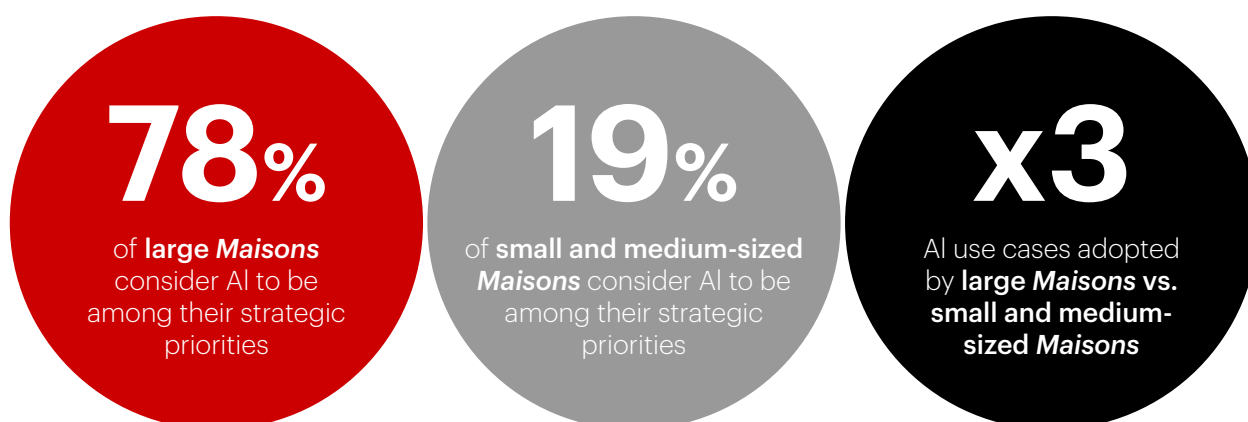
Company size is currently the most influential factor in the level of prioritization of AI in the luxury sector: 78% of large *Maisons* have put AI in their top 10 strategic priorities for the next three years, compared with just 19% of small and medium-sized *Maisons*.

Size also influences the level of adoption of solutions integrating AI: Large *Maisons* have deployed on average three times more AI use cases than small and medium-sized *Maisons*.

However, within the next few years, that imbalance should change, as there is less of a size gap when it comes to plans for future AI deployment. Large *Maisons* are piloting or planning an average of 5.8 use cases for AI, compared to 5.3 at small and medium-sized *Maisons*. So why do we think that smaller *Maisons* could catch up over the next two years?

While analytical AI solutions have proved divisive in their recent adoption (as they require highly trained and expensive data analysts to build and maintain analytical tools), generative AI is accessible to a wider panel of *Maisons*. Those who had not previously allocated resources to analytical AI are now finding it

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easier to tackle generative AI, because of its lower entry costs and use cases that are better suited to low volume categories. This is the case for Boucheron, as Laura Cals, its chief of staff to the CEO, explains: “Our *Maison*, previously a novice in the use of artificial intelligence, is now taking an interest in generative AI solutions and training our creative departments and human resources. We are now considering the possibility of incorporating analytical solutions and predictive models as well.”

The greater accessibility of generative AI has advanced *Maisons*’ thinking on the AI front: 80% of the small and medium-sized *Maisons* surveyed have already identified areas of application, while only 58% have done the same thing for analytical AI (100% of the large *Maisons* have done so for both analytical and generative AI). “We are mindful of not being left behind: we have set up an AI observatory, with ambassadors in each department, to identify and qualify the solutions developed in the market and select a couple that will create value for Longchamp,” confirms Hervé Stab, chief information officer at Longchamp.

Whether or not a *Maison* is part of a multibrand luxury group will be a crucial factor in how quickly these use cases will be deployed in the future. Smaller *Maisons* within a luxury group benefit from a central impetus and an adaptation of solutions already tested and deployed by their larger counterparts. As Jérémy Muras, chief digital officer of Givenchy, explains: “Synergies are important between *Maisons*; as a smaller *Maison*, we benefit from the group’s impulse and experience sharing on solutions developed within pioneering *Maisons*. In any case, the solutions we inherit must be adapted to our specific needs and ‘trained’ to our heritage.” Among the small and medium-sized *Maisons* surveyed, 42% of those backed by a luxury group already have a clear vision of their generative AI strategy, compared to just 13% of independent *Maisons*.

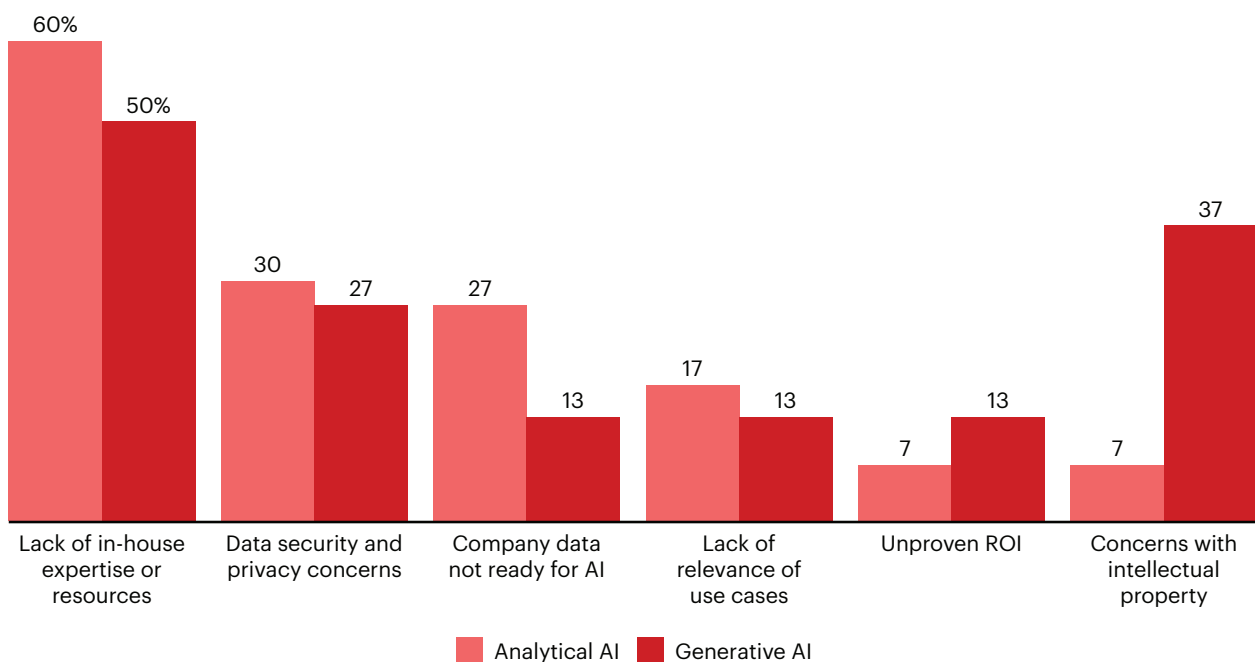
In-depth reflection needed to remove barriers to adoption

When asked about the main barriers to AI adoption, *Maisons* most frequently identified lack of in-house expertise and resources as a blockage. The proportion citing it as an issue was slightly higher for analytical AI (60%) than for generative AI (50%). This difference can be explained by the need in analytical AI to recruit teams of data scientists with cutting-edge skills that can develop the most effective artificial intelligence model from scratch. Generative AI, on the other hand, requires more commoditized skills (software engineering, prompting) to assemble preexisting models.

The second-most common barrier cited relates to data security and privacy concerns, which were emphasized by about 30% of respondents, while usability of data remains a linked concern.

Intellectual property concerns are central to discussions around generative AI: 37% of respondents cite these as a barrier to solutions implementation within their *Maison*. They highlight the risk of seeing their historical heritage fall into the public domain if their data were used to train an open generative AI model, as Jérôme Joutard, chief information officer of Parfums Christian Dior, points out: “Intellectual property and confidentiality issues are at the heart of the use of AI. We are the custodians of an incredibly rich heritage dating back to the creation of the brand, and it must not fall into the public domain.” At the same time, content generated by these models could dilute a *Maison*’s unique identity by offering up commoditized

Figure 4: Barriers to faster adoption of analytical and generative AI, by proportion of *Maisons* citing



Source: Comité Colbert and Bain & Company survey (May–July 2024)

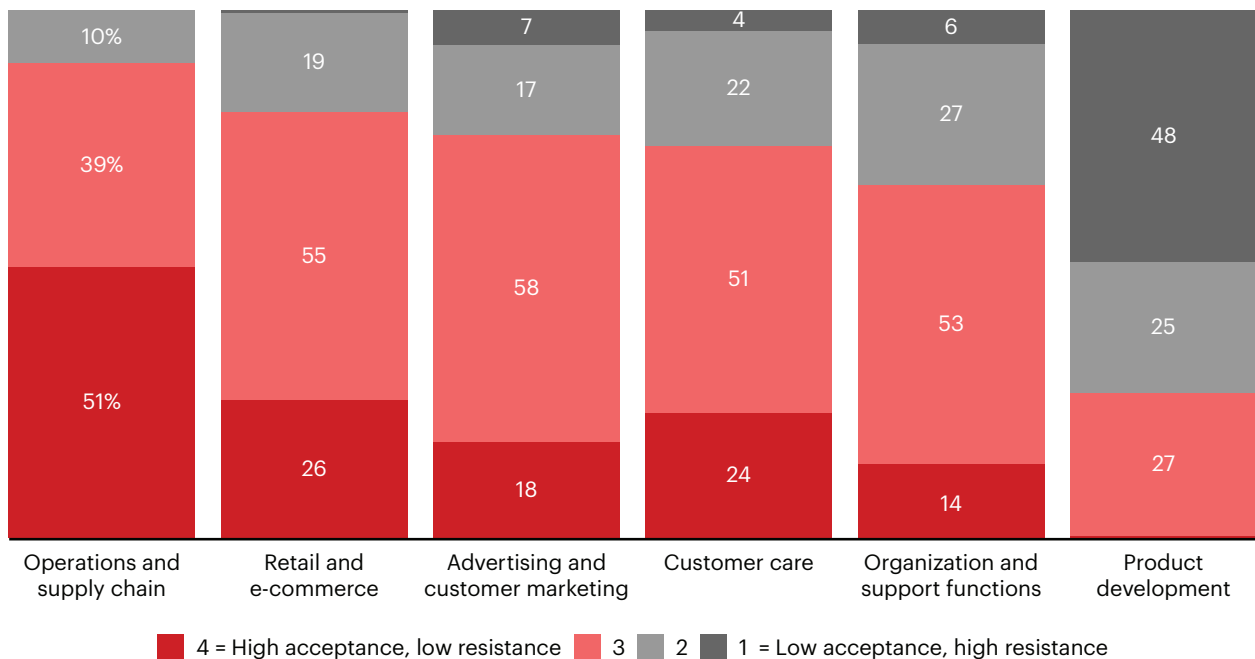
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imagery that merely conforms to an industry standard, while also creating a risk of unintentionally infringing on the intellectual property rights of other content creators.

Finally, we note that there are no obstacles to AI development related to the lack of relevance of certain uses cases or uncertainties about the return on investment, with only a small minority of respondents citing either of these two points.

Beyond implementation, usage of solutions will depend on how much they are accepted as a tool for each function, something that is very varied today. The study reveals a very high level (90%) of acceptance for deployment within the operations function of *Maisons*, the area with the most widely deployed use cases so far. On the other hand, the strongest resistance relates to deployment in creative functions. When it comes to creative functions/product development, around 70% of respondents are rather opposed to the integration of AI-supported tools (unsurprisingly, less than 5% of *Maisons* have deployed use cases in this area).

Figure 5: Level of acceptance of AI solutions across functional areas, by proportion of *Maisons* selecting from a 1-4 scale



Source: Comité Colbert and Bain & Company survey (May-July 2024)

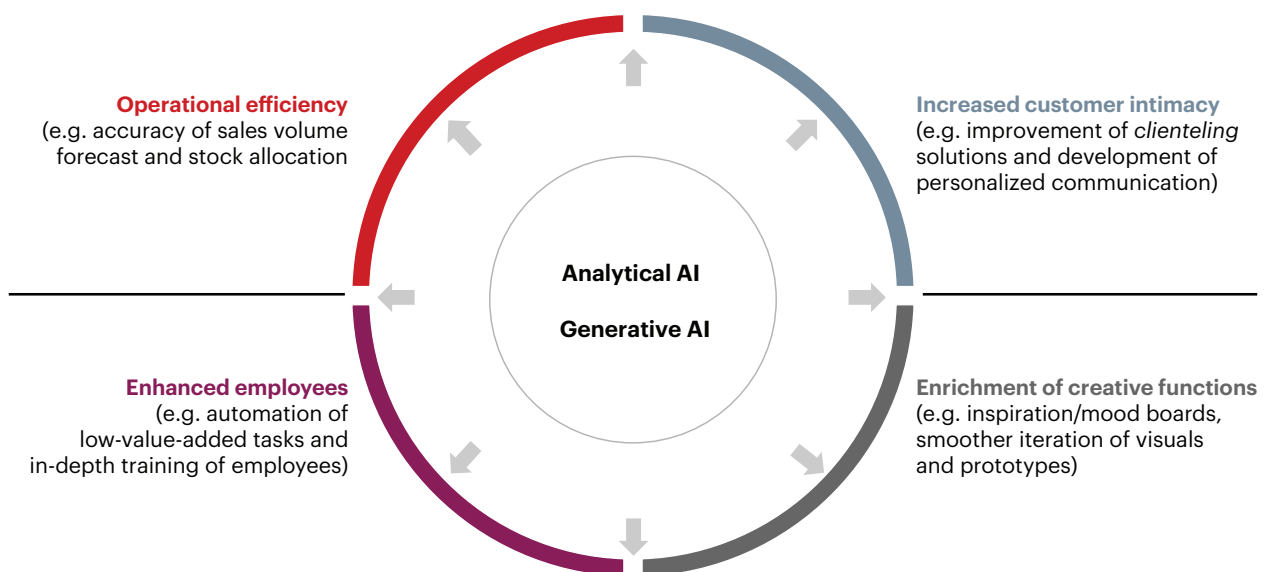


Part 2: The strategic objectives served by AI in the luxury sector

Four strategic objectives for luxury players

The full exploitation of AI in the luxury goods sector revolves around four strategic objectives (see Figure 6). So far, *Maisons* have focused their efforts on two of them, those that impact the core of their differentiating activities, namely operational efficiency (with the management of sales volumes and inventories) and customer interactions (marketing, sales channels, and service).

Figure 6: Strategic objectives served by artificial intelligence in luxury sector



Source: Comité Colbert and Bain & Company survey (May–July 2024)

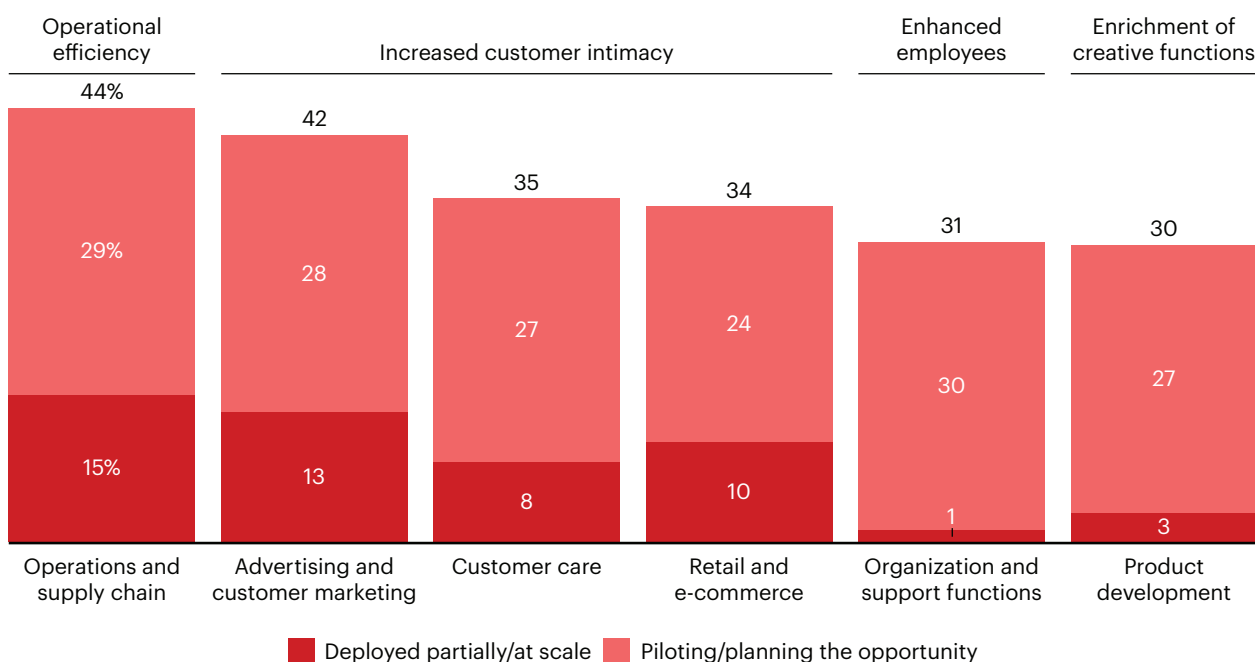
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Operational efficiency is the objective with the highest level of adoption: the average adoption rate of tested use cases is 15% in this area, and that could easily double in the short term thanks to current or planned pilots.

AI is casting a new light on ways of deepening the bond formed in interactions with customers: the average adoption rate of tested use cases is between 8% and 13% in this area. In addition to major advances in the field of clienteling, AI is opening new horizons for even greater personalization across a variety of use cases in marketing, sales channel, and customer care.

However, the other two strategic goals—the enhancement of teams and the enrichment of creative functions—are still at an exploratory stage, with very limited adoption rates. On the one hand, the luxury sector sees AI as an opportunity to increase the capabilities of their teams. New tools can make employees more productive, allowing them to reallocate their time to more added-value tasks. On the other hand, the enrichment of creative functions with AI is being viewed with reserve and caution by the *Maisons*. The legitimacy of technology in creativity is undoubtedly the most sensitive issue.

Figure 7: Proportion of *Maisons* that have adopted or are testing AI solutions, across functional areas



Source: Comité Colbert and Bain & Company survey (May–July 2024)

A balance for each *Maison* to find according to its culture

Each *Maison* has its own way of thinking about these four pillars, enabling them to take informed decisions on the opportunities offered by AI. The *Maisons* aspire to be attuned to innovation while ensuring that they maintain their own distinct identity. This largely explains why many opportunities remain untapped by *Maisons* today: They choose to opt out of innovations that exceed the boundaries of legitimacy they have defined for AI.

While different views can be observed depending on the DNA of the *Maisons*, all agree that AI should neither question the central role of humans in the creative process nor replace operational teams. The industry's conviction is that AI, as a powerful tool, must remain discreet and put itself at the service of luxury codes and standards to reinforce authenticity, exclusivity, and intimacy. Human expertise must be preserved at all costs, because it is the guarantor of the DNA and know-how of the *Maisons*. It is also the best protection against the potential excesses of AI.



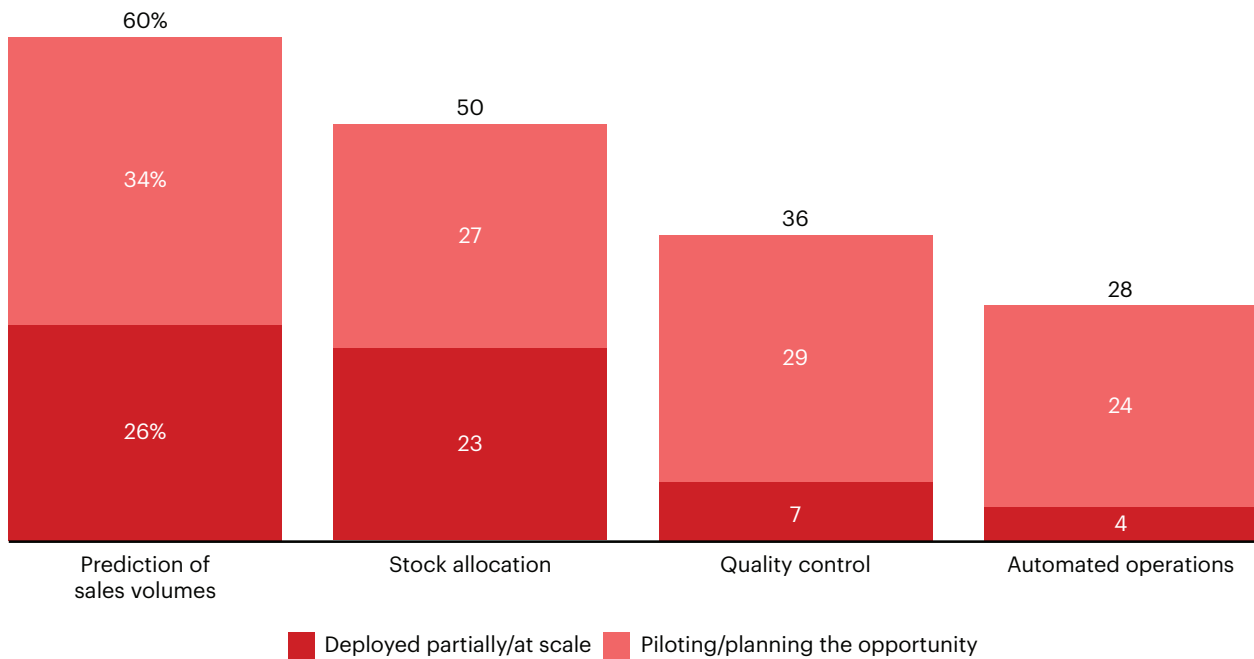
Chapter 1: AI for operational efficiency

The heartland of AI adoption so far

Operational performance is the area with the highest adoption and acceptance of AI applications. This field seems to have offered AI, particularly analytical AI, its most convincing use cases to date. What stands out most clearly is the possibility for operational functions (manufacturing, logistics, etc.) to draw on powerful predictive algorithms. They can be deployed for optimization tasks such as forecasting sales volumes (26% of *Maisons* are already doing this, with a further 34% in the pilot or planning phase) or stock allocation (a current adoption rate of 23%, with a further 27% of respondents either running pilots or planning projects). This fine-tuning of forecasts generates cascading benefits. For example, it can enable the precise adjustment of raw material orders and manufacturing quantities, while making it easier to ship the right volumes to each boutique when needed, avoiding out-of-stock or unsold items.

Kering has been one of the pioneers of this approach. Several years ago, the group started to develop a sales forecasting solution supported by analytical AI, piloted first within the Gucci brand. The group's team of data scientists built a predictive algorithm, making it possible to anticipate sales volumes according to channels and stores, to minimize product shortages for customers or decrease inventory levels. However, AI is just a tool for the teams; it doesn't take control. Planners use AI analysis to prepare store assortments but can adjust choices, sometimes prioritizing products the algorithm overlooks, using their understanding of the local market and customers. Kering estimates that the deployment of this tool improved decision-making accuracy by 25%.

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Figure 8: Proportion of *Maisons* that have adopted or are testing AI solutions in operational efficiency

Source: Comité Colbert and Bain & Company survey (May–July 2024)

However, these proprietary solutions are unlikely to become widespread in the industry, as their usefulness and effectiveness often depend on the size of the *Maison* and the volume of production. In smaller-volume businesses, human expertise remains more relevant and can be augmented by off-the-shelf solutions. Cédric Aumonier, business partner at Bäumer – Place Vendôme, a renowned jewelry *Maison*, testifies: “Given the size of our *Maison*, we have not felt the need to develop in-house sales forecasting or inventory management tools. However, third-party software we use includes AI algorithms.”

Beyond refining forecasts, other operational use cases are anticipated to be implemented in the luxury goods sector, but they have not yet seen widespread adoption. This is the case for quality control (only 7% adoption, with 29% of respondents saying they have projects in the pilot or planning phase), although the first solutions are starting to emerge (such as GoldenEye Smart Vision for textile quality control). Likewise, end-to-end automation solutions for warehousing or inventory management operations have currently only been adopted by 4% of *Maisons* (while a further 24% have pilots or plans for this application). Existing solutions are not yet advanced enough.

GoldenEye Smart Vision, textile quality control improved thanks to AI

In the textile industry, quality control represents a major challenge, and expenses account for up to 10% of revenues. Marked by laborious, time-consuming and largely manual processes, this essential step is a real pain point for both manufacturers and brands.

This is the problem that GoldenEye Smart Vision is working to solve. The AI-based textile digitization and quality control solution automatically detects and classifies roll defects. It relies on a proprietary optronic system (connected to a customer's machines) and autonomous AI. The solution models the pattern of each roll and identifies anomalies by detecting deviations from the expected pixels. What's innovative is the accuracy of the result—without requiring prior training on thousands of fabric rolls. A detailed e-inspection report provides users with essential information on fabric quality. As it gains experience and adds to its large digital library of fabrics, GoldenEye Smart Vision learns and improves.

According to its founder, the solution enables textile manufacturers to cut production times by 14 days, reduce raw material consumption, and markedly improve product quality. In addition to productivity gains, there are significant environmental benefits, with a 15% reduction in fabric offcuts.

Already deployed within production sites of renowned *Maisons*, GoldenEye Smart Vision meets the exacting demands of the luxury world. By allowing users to precisely define the level of imperfection to be detected, it guarantees high quality. The solution supports all types of fabric, with tests underway for leather. It also makes it easier to attract and retain talent to quality control, by transforming a challenging and solitary job, which faced significant recruitment issues, into a more interactive role that incorporates technology and engages with various stakeholders in the value chain.

Future applications across the entire supply chain

In the future, advanced AI analysis of customer data could generate more accurate recommendations for the entire supply chain. Predictive shipping of items requested by customers—using propensity scores to send products to stores near their travel or vacation destinations—could become a reality, enhancing product availability and customer experience.

AI algorithms will also be able to incorporate public data that affects the *Maisons*' operations, such as changes in customs regulations, import taxes, and complex climate or transport conditions. This predictive capability will enable *Maisons* to engage in proactive discussions with their suppliers to prevent supply disruptions and manage supply chain risks effectively.

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Meanwhile, detailed reporting at each stage of the supply chain would pinpoint potential bottlenecks in product distribution to stores and ensure that the overall supply chain rhythm aligns with projected demand. If potential issues are detected, detailed action plans would be suggested to effectively resolve these challenges, thereby ensuring proactive and optimized supply chain management.



Chapter 2: AI at the service of customer relations

“AI is a tool that will provide suggested responses to our brand ambassadors to enrich and personalize the dialogue with their customer. But the ambassador always remains responsible for the conveyed message.”

Xavier Gueroux, International Client Marketing Director, Cartier

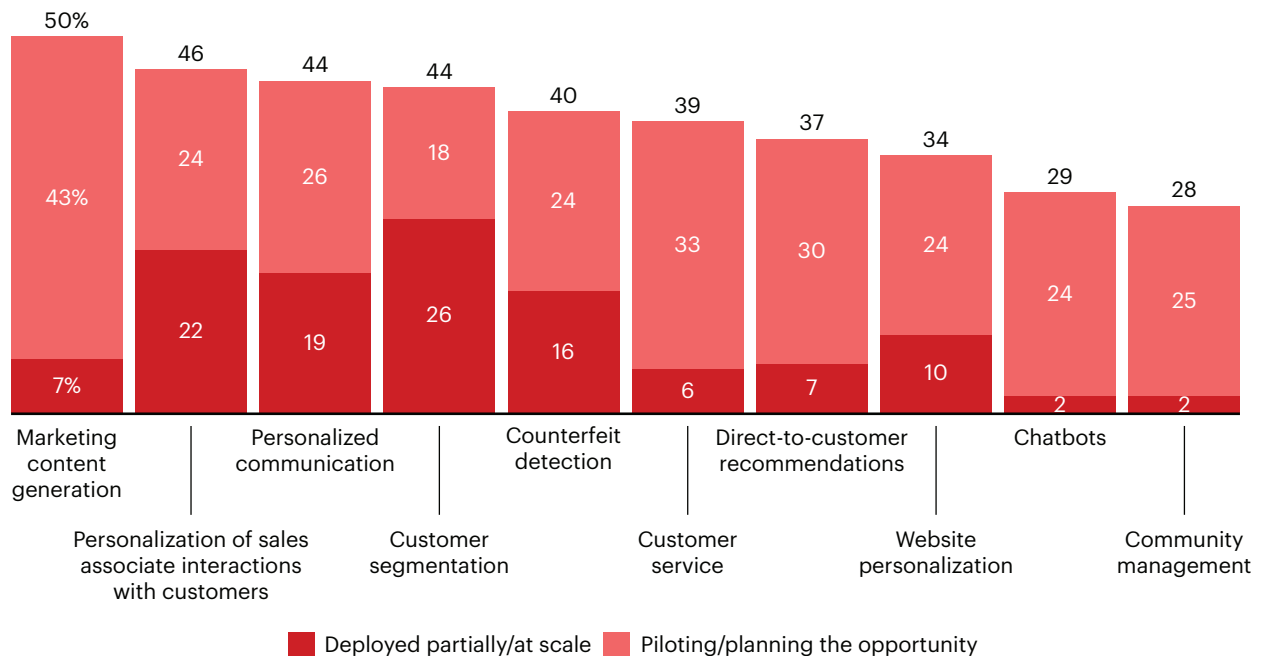
The quest for the Holy Grail: amplifying and personalizing customer relations

The first edition of the Bain-Comité Colbert report highlighted how customer relations, engagement, and experience have served as a prime area of experimentation for luxury brands in deploying technology. It's no surprise, then, to find this area among the major strategic objectives for AI in luxury.

Brands are focusing on better identifying their customers (26% partial or scaled adoption for customer segmentation) and enhancing their communication with them (22% partial or scaled adoption for clienteling, 19% for personalized communication, 10% for website personalization). The goal is to make the relationship more unique, ensuring that each customer feels not only recognized but also understood and served in their preferences and expectations.

As Yves Saint Laurent Beauté's Delphine Tour Helin puts it: “AI will help us recognize our customers even better everywhere in the world, whether they buy online or in physical points of sale. This is a key challenge to ensure a seamless consumer journey.”

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Figure 9: Proportion of *Maisons* that have adopted or are testing AI solutions in customer engagement

Source: Comité Colbert and Bain & Company survey (May–July 2024)

Other use cases are starting to mature: marketing content creation (although only 7% of respondents have adopted, 43% are testing or planning to deploy AI in this area), and customer service assistance (6% adoption, 33% testing or planning).

A powerful tool that must remain at the service of humans

AI technology offers significant potential for amplifying and personalizing customer engagement, but it can also entail risks. There are still concerns about allowing AI applications to be visible. At this stage, most brands are keeping their use of AI discreet, both in applications directly accessible to customers and those used by sales representatives, due to concerns about potentially undermining the authenticity of the customer relationship.

The use of customer-facing AI applications is divisive. For example, the integration of chatbots on company websites or in customer service does not seem to be accepted today, with only about 30% of respondents seeing it as an option. While the overall mood is of mistrust when it comes to customer-facing chatbots, larger *Maisons* or those within a group appear more open to considering the matter, provided it fully aligns with the values of the luxury goods industry. Parfums Christian Dior's Jérôme Joutard affirms: "If we were to develop a client-facing analytical or generative AI application, it would be with our level of requirement and in a luxury-compatible customer experience." Category-specific factors also influence the *Maisons'* stance on the issue: Beauty brands, traditionally sold via intermediary distributors, are

more likely to accept customer-facing AI (with 60% of respondents being open to the deployment of such applications), while jewelry *Maisons* are fiercely opposed to it (with a 0% chance of development).

Despite the resistance to customer-facing AI applications, some solutions based on analytical AI that don't involve key moments in the sales process are being embraced by the *Maisons*. For example, The Ordre Group, in partnership with several *Maisons*, has developed a solution called Authentique that enables customers to know in a matter of seconds whether they are looking at an original product or a counterfeit. The luxury goods sector has embraced this solution with enthusiasm due to the significance of the subject, the specific friction point it addresses, and the substantial revenue loss associated with counterfeits. Authentique also helps *Maisons* reduce fraudulent returns.

As far as applications for sales ambassadors are concerned, most brands will choose to equip teams in a discreet way, to support them in their tasks, while allowing them to make the final decision on the advice and sales process. “We see AI as a way to hide the complexity of the back office. It is the perfect tool to help the advisor provide the customer with the answer they need, but it should not come between the customer and the product, or disrupt the customer's interest in the product,” asserts Christophe Plouseau, chief information officer at Louis Vuitton Malletier.

AI can thus serve to elevate the relationship between the salesperson and the customer and help avoid frustrations such as delays in summoning a product to the shop floor. This is the spirit behind the “Les Extraordinaires AI-Configurator” prototype, an iPad-based virtual assistant developed by Louis Vuitton that showcases its Les Extraordinaires leather goods collection for its most important customers. With more than 1,200 bag configuration options, the Generative AI-powered tool—featuring an earpiece that provides the sales ambassador with natural language messages—offers robust support for ultra-personalizing customer recommendations. It also considers availability and delivery times through integration with the inventory and order management system. Ultimately, the challenge is to extend the scope of the virtual assistant to all types of customers (with priority given to the leather goods and footwear categories) and to scale up its roll-out by ensuring the localization of solutions (by using smartphones rather than iPads in China, for instance). “The real difficulty lies in the transition from pilot to industrialization,” explains Stephan Emanuely, demand and program director at Louis Vuitton Malletier.

Some *Maisons* remain reserved about the legitimacy of AI in customer interactions, which are by their nature eminently personal and human. Bäumer – Place Vendôme's Aumonier explains: “The sales ceremony and interactions with our customers are matters of nuance. It's very difficult to know the person in front of you, with all the objective and subjective criteria that will shape his or her choices, so it seems unthinkable to entrust this interaction to a machine.”

Opportunities created by AI

A major advance in understanding customers could be achieved through the creation of a “digital twin” of the customer—an AI-driven database that collects data from all the customer's interactions (in-store, online, by phone, etc.) with the *Maison*, including their order history, personal information, and social media responses. This would enable *Maisons* to know them more intimately and recognize them everywhere in

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the world, across all channels, to offer them complete personalized content or an environment (physical or digital) that appeals to them, or even to adjust product recommendations to their expectations and schedule.

For Givenchy's Muras, luxury could go as far as completely personalizing its interaction, particularly online, as well as overhauling current modes of engagement: "We can imagine a complete transformation of the online customer experience, offering a new interface with the product, and perhaps even the disappearance of websites in the near future. You do not want to go to a website and scroll through. You just want to see what you came here to see—you want the experience to be more personalized, more informed, not gimmicky."

What if *Maisons* provided their customers with a personalized concierge—a digital version of their usual sales associate—to support and advise them at any time of day? Given the way that customer loyalty in luxury depends on hyper-personalization of relationships and the peerless quality of the shopping experience, some *Maisons* might well take the plunge if they can do so in a way that fits their elevated brand positioning.



Chapter 3: AI for augmented teams

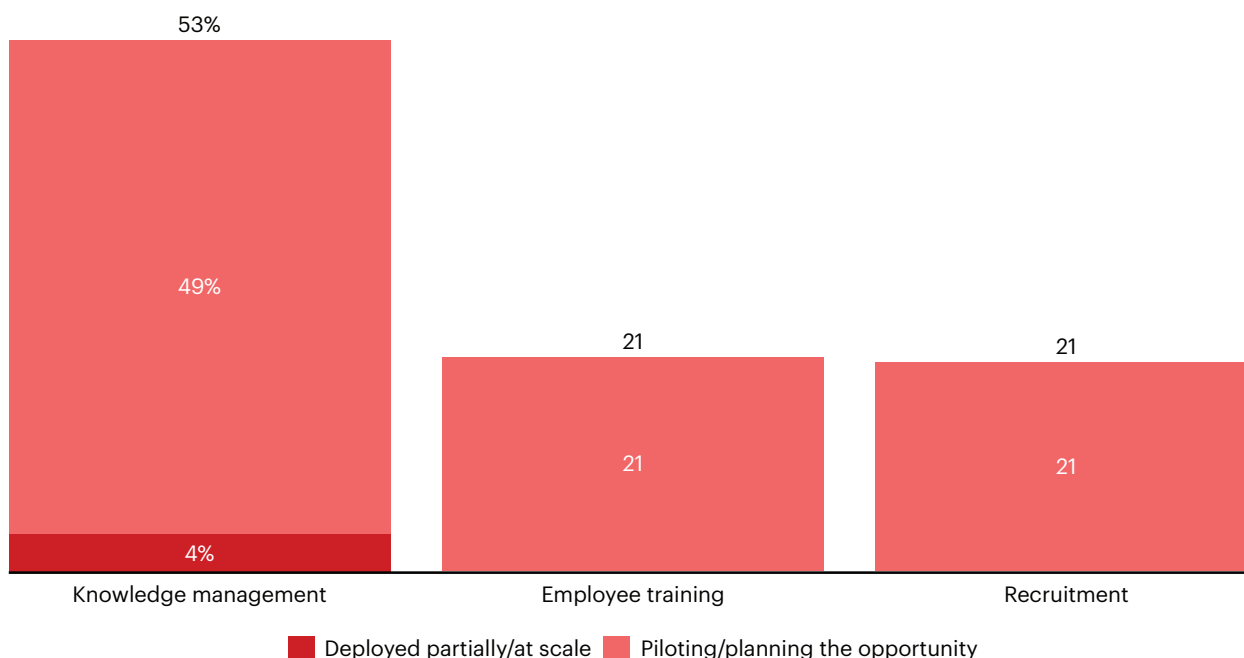
Still waiting for the deployment of tools to enhance teams

AI adoption rates among non-commercial or creative employees (support or craft functions, in particular) are still low. Tools such as personal assistants could be quickly integrated into day-to-day work, to facilitate document translation or synthesis, or to speed up processes that are costly in terms of time and human resources. This could result in significant productivity gains for the *Maisons*. However, pick-up is close to zero for the various use cases analyzed: knowledge management, employee training, and recruitment management. Perhaps these functions are not perceived as sufficiently high priority or high stakes for the luxury goods sector, and the *Maisons* prefer to wait for off-the-shelf, market-proven solutions. Nonetheless, with 49% of respondents saying they are testing or planning to deploy AI in knowledge management and 21% saying the same for employee training, that could change very quickly.

Some groups are showing themselves to be pioneers. LVMH is one. With MaIA—a solution developed from an open source third party model tailored to each *Maison* of the group—it has given all employees access to a high-performance versatile personal assistant, capable of providing reports on event press coverage and support on translation or document drafting. The tool, which is continuously being improved, has already achieved a high adoption rate, particularly among head office functions of Louis Vuitton, with 20%–30% of employees using it at least once a month, and around 100 users accessing it multiple times per day.

In addition, *Maisons* can choose solutions from various start-ups incorporating AI to improve employee productivity. For example, AIVE has launched software for tailoring videos to their final use (for instance, by adapting them to a specific social network or by highlighting specific messages). Within the tool, the user can select an existing video, give instructions or take advantage of the prompts suggested by the tool itself, and get a new, customized video. This process eliminates the need for multiple adjustments and editing sessions, cutting the time required for a new video from around three weeks to less than ten minutes.

Figure 10: Proportion of *Maisons* that have adopted or are testing AI solutions related to enhanced employees



Source: Comité Colbert and Bain & Company survey (May–July 2024)

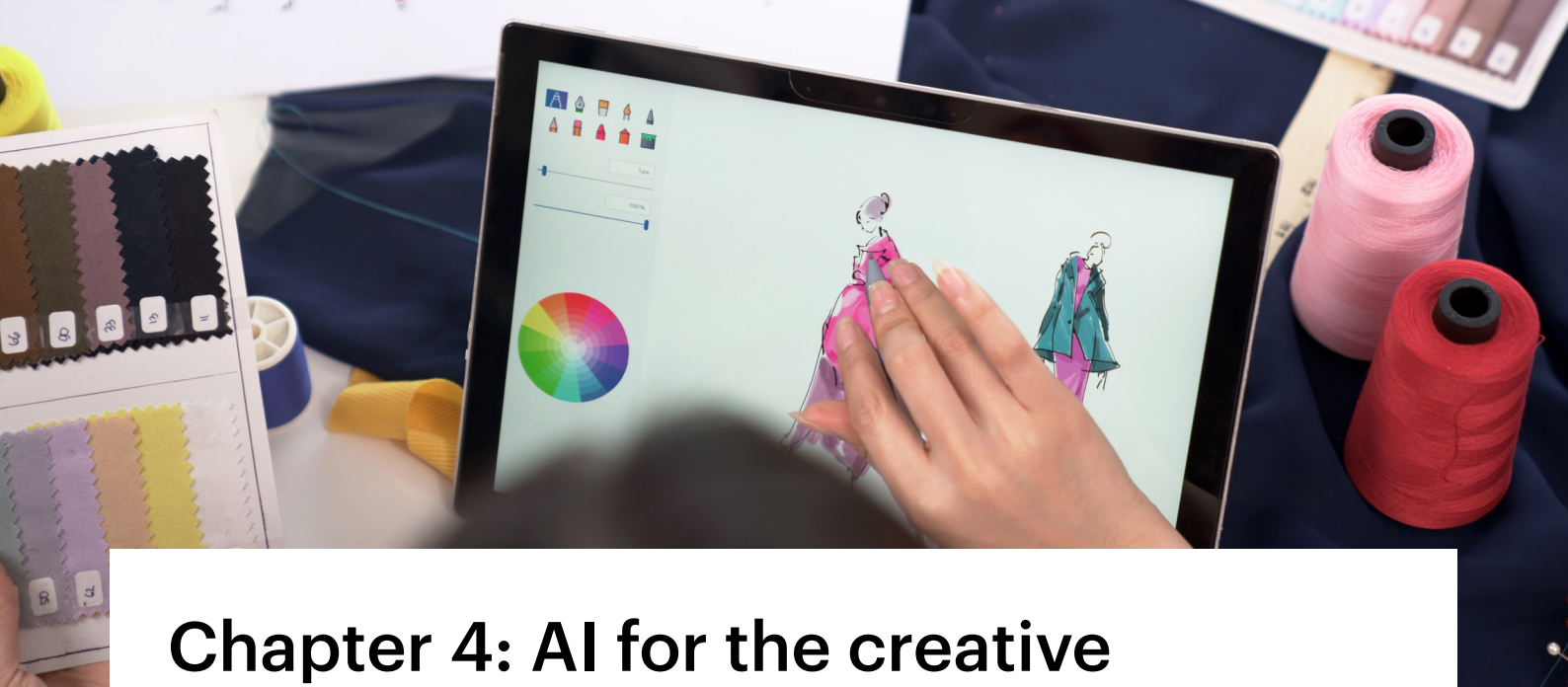
However, some reservations are still evident regarding craft functions. While AI could be used to capture the accumulated know-how and gestures of experienced craftsmen, or even to perform specific tasks hyper-efficiently, there is a clear reluctance to deploy it without careful consideration of the way that each craft is currently learned and passed on. Eric de Rocquigny, Van Cleef & Arpels chief operating officer, explains: “AI will make employees’ work easier by putting tools at their fingertips, but it’s essential to preserve human expertise so that we can regain control if things go off track. It’s important to make durable choices, so that the know-how continues to pass from generation to generation. In diamond sorting, for example, beginners are trained on hundreds of small diamonds before being given access to larger stones. If this process were automated with an intelligent optical scanner, for example, they would no longer gain the experience needed to appraise high-value pieces.”

Culture and craftsmanship: will AI help to pass it on in the future?

In the future, alongside the widespread adoption of intelligent assistants among all *Maison* employees, AI solutions may emerge to facilitate the collection and sharing of the *Maison’s* history. This would help employees better embody the brand and enable new talents to quickly grasp its heritage and codes. For example, an interactive digital library could bring together the cultural and artistic heritage of each *Maison*: key dates; historical facts; values and commitments; collection sketches, patterns or prototypes; press mentions; media campaigns; fashion shows from past seasons; emblematic materials, symbols or prints; logo history; and quotes from the *Maison’s* general manager and creative director.

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Similarly, AI could support the development of new methods for the transmission and preservation of know-how, while protecting the heritage of each *Maison*. Innovative tools could emerge for passing on artisanal expertise, complementing traditional methods of apprenticeship. The *Maisons* could, for example, equip craftsmen with a “digital mentor”, enabling them to correct and continually improve their techniques, by combining the shared experience of teams and access to personalized content offered by AI. Rather than replacing direct transmission of skills, such tools would complement it, allowing for more precise replication of techniques and providing more comprehensive training for apprentices, while also preserving human expertise.



Chapter 4: AI for the creative function

“Luxury sets itself apart from other industries through the crucial role of artistic direction, which must embody the brand, reflect its identity, and convey its creativity. While AI can by no means replace human creativity, it can enhance and streamline the creative process.”

Grégory Boutté, Chief Client and Digital Officer, Kering

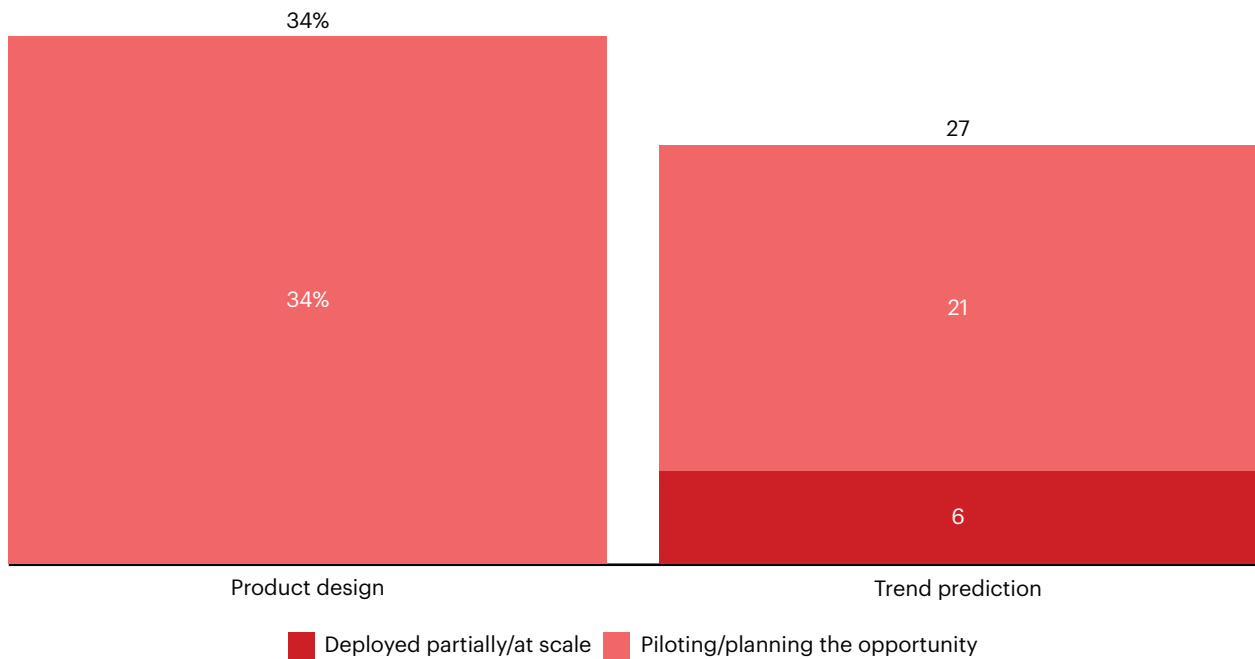
Product development: a sensitive area that keeps its distance from AI

Can artificial intelligence revolutionize the way companies approach the creative process?

Of all the stages of the value chain, the luxury goods sector remains most cautious about using AI in the creative process. The level of progress is very low (the only current use case deployed, which involves trend forecasting, has been adopted by just over 5% of *Maisons*), Moreover, the acceptance rate by management remains quite limited, with fewer than three out of 10 *Maisons* being open to integrating AI in this area. This is undoubtedly linked to the fear of a possible substitution of creative teams by AI, which would result in the loss of the very essence and exclusivity of luxury, which must innovate in a singular way to awaken the desire of its customers, rather than copy trends to meet existing expectations.

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Figure 11: Proportion of *Maisons* that have adopted or are testing AI solutions in product development



Source: Comité Colbert and Bain & Company survey (May–July 2024)

Other adjacent sectors, like premium fashion, which are less bound by the imperatives of creative uniqueness than luxury, are showing some curiosity about AI in this area, as evidenced by some recently launched initiatives.

Premium fashion's boldness with AI

Unlike luxury players who are cautiously approaching the use of AI in the creative process, several premium fashion brands are seizing on the new tools available in this field.

In January 2024, at the CES tech event in Las Vegas, The Kooples announced its "AI-powered Capsule Collection", a collection generated entirely by artificial intelligence, produced in collaboration with IMKI, a French startup specializing in generative AI creative solutions in luxury and fashion. Thanks to AI, The Kooples was able to accelerate its creative process, producing its collection three times faster and enabling the studio to concentrate fully on finalizing and improving the products.

American stylist Norma Kamali has also leveraged AI for her creative process, and says she uses it to "download [her] brain, so that [...] the legacy of the company can literally continue and persist". The customized AI system, co-developed with the agency Maison Meta, was trained on a vast collection of images and designs from the brand's archives, aiming to capture the essence of Kamali style. Using technologies from Stable Diffusion XL and the open-source Fooocus tool, this system enables employees to generate new designs in Norma Kamali's style from simple prompts.

Maisons start to explore new avenues

Some brands are selectively exploring AI applications in the creative field. Around a third of the *Maisons* are beginning to study use cases in product design. Caution is called for, even for these preliminary experiments, which are mainly aimed at the upstream (inspiration boards) or downstream (speeding up the visualization of alternatives or 3D prototyping) phases of the process, but never at the genesis of the creative spark itself. These experiments are of course a function of the company's culture, but they also depend on its size: Once again, larger *Maisons* have more resources available, enabling them to work on new tools in-house, or to co-construct with start-ups solutions that respect their constraints.

From sketch to 3D visualization in seconds

“In developing BLNG Design, we set ourselves the goal of giving time back to designers,” says Valérie Leblond, founder of BLNG AI.

BLNG Design is a multimodal conversational agent for the jewelry industry that converts sketches, inspirational images, and photos into photorealistic 3D renderings of products. From a simple sketch or a prompt like “man’s gold watch”, the AI generates photorealistic renderings. The user can then adjust the design by adding details or changing material and color, for example. Accompanied by a “creative companion” that estimates the cost of all the elements of the AI-generated jewelry (e.g., the cost of the diamonds as drawn), the tool facilitates the visualization process by reducing the time to go from a first sketch to a photorealistic rendering from three weeks to a few seconds.

Founded in June 2023, BLNG focuses exclusively on the jewelry sector via specialized algorithms.

BLNG Design is part of a suite of three solutions developed by the startup. BLNG also offers Studio, a tool that transforms and animates digital jewelry designs to create captivating content for marketing campaigns and e-commerce sites. Jewelry is projected into customizable virtual environments, enabling for example the display of a ring on an adjustable hand (skin color or age can be modified). Studio significantly reduces the costs of traditional photo shoots, while enriching BLNG Design’s database.

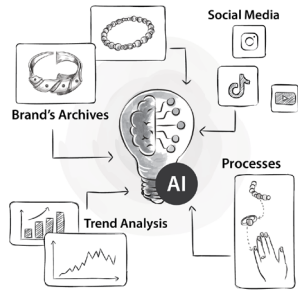
Future tools to streamline, but not dehumanize, the creative process

In the years to come, we can imagine that AI-based solutions will evolve to accompany creative directors more closely in their journey. These tools could serve as catalysts, providing teams with access to an endless array of inspiration, including materials and manufacturing techniques from other fields. AI could, for example, enhance the human creative process by bringing together in one application the entire heritage of the *Maison*, the creative director’s vision, an exhaustive list of available materials, and all customer feedback deciphered in real time. It could provide creative teams with historical images around a given theme, and guidelines for blending these references into the heritage and imagery of each *Maison*.

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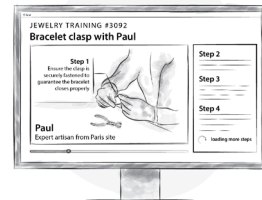
Imagining AI in luxury's future

AI for augmented teams at Lux Maison



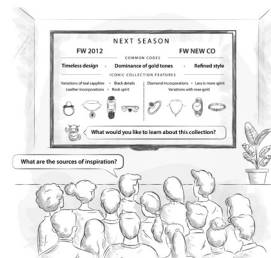
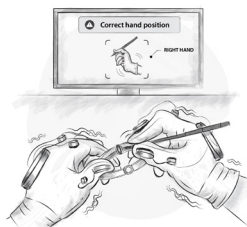
Lux Maison's creative team draws on a wide variety of sources of inspiration as part of its intensive research. It decides to use AI to collect, organize, and process all the data it has access to (historic and emerging market trends, customer opinions and sentiments, the *Maison's* archives, and stock of available materials, etc.) into a single system, the "Inspiration Assistant".

The Inspiration Assistant listens to the meeting in which Lux Maison's creative director outlines his vision for the next season. The AI tool analyses the discussion and displays in real time what it has retained from the meeting, enabling the team to improve or correct the tool's understanding immediately.



While working on the various products of the new collection, designers ask the Inspiration Assistant for stylistic inspiration and technical recommendations. They can receive suggestions from previous collections, consistent with the creative director's vision, as well as information on the most suitable raw materials that are in stock.

Highly experienced craftsmen contribute to the development of the training program to ensure that their know-how is accurately shared with apprentices. AI records their techniques and best practices and generates training content. Craftsmen then refine and enrich the training material.



After studying the training module, a novice craftsman begins working on a product from the new collection with an AI copilot. He wears haptic gloves and receives contextual feedback to perfect his movements. The same system guides experienced craftsmen on how to work with new sustainable materials.

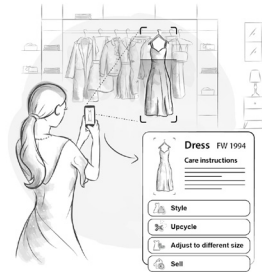
When the new collection is about to be unveiled in boutiques, sales associates receive dedicated AI-generated training on the different pieces in the collection and their features, as well as on sources of inspiration and values linked to the brand's heritage. Sales associates interact with the Inspiration Assistant to ensure that they fully understand the vision of the creative director and master the storytelling for each product.

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New ways to interact with the customer



Clara, a Lux Maison customer, has missed the show for its new collection and decides to explore it online. On the Lux Maison website, she finds herself immersed in her nearest boutique and is greeted by an avatar of Adèle, her usual sales associate. Adèle shows her the new pieces that best match her latest purchases. She can also tell her which products are immediately available.



Before going to the store, Clara casts an eye over her wardrobe. Using the Lux Maison app, Clara scans a dress from an old collection that she hasn't worn for a long time. Adèle's avatar offers her four options in response:

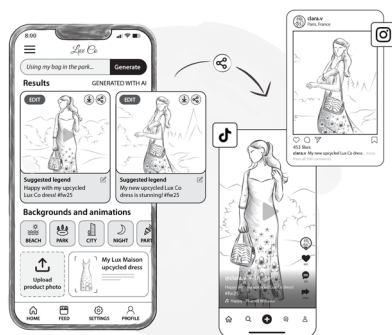
- (A) give her dress a new look by combining it with pieces from the new collection
- (B) browse through restyling options, for example, shortening the dress or adding details
- (C) have the dress altered for an even better fit; and
- (D) estimate the resale value of the dress.



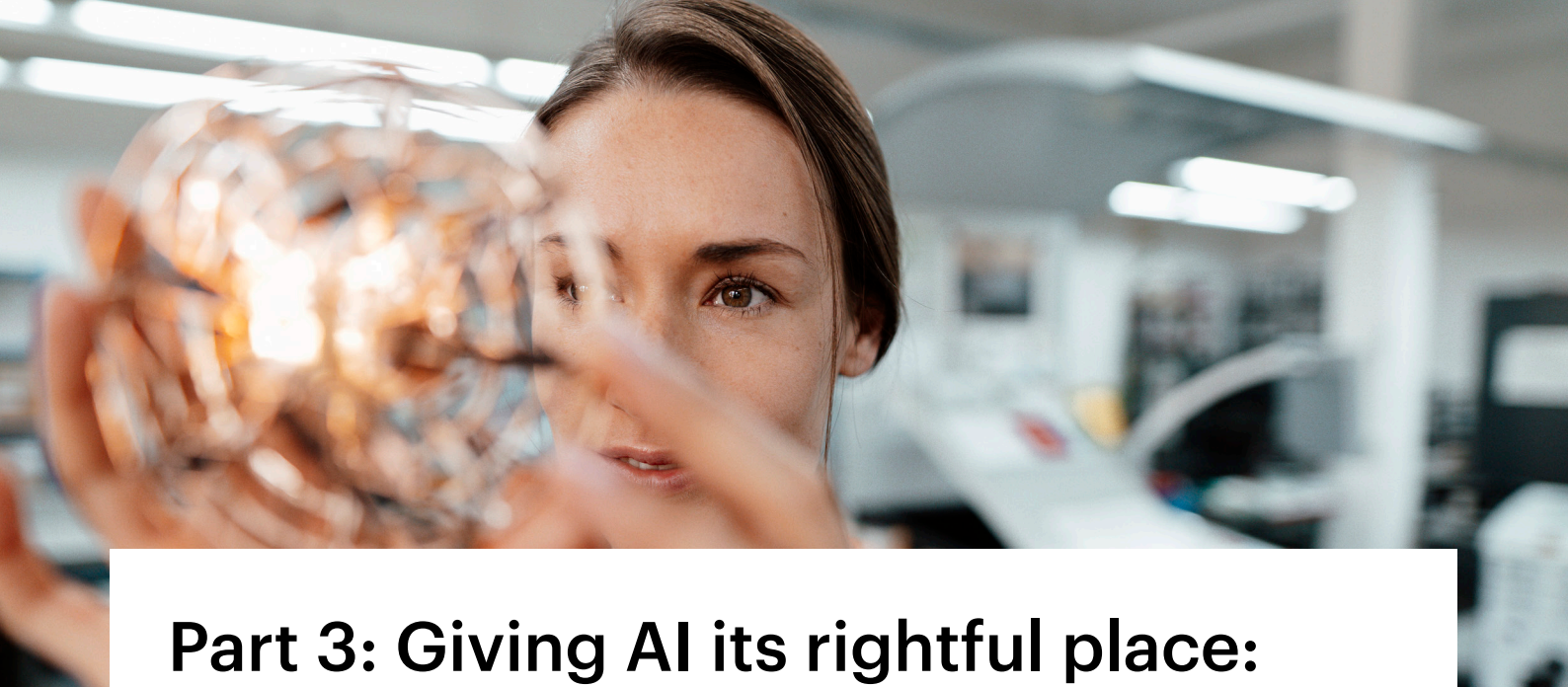
The app provides additional information about the Lux Maison dress, such as its creation history, the collection it was part of, historic advertisements, and original sketches. Clara enjoys learning more about her favorite brand and discovers other products from the *Maison's* archives.



A few days later, having settled on a restyling design suited to her body shape and taste from several AI-generated options, Clara visits the store to pick up her revamped dress. The result is even more breathtaking than the 3D model she had seen in the application! Adèle, her sales associate, makes sure to lay out in the fitting room the pieces from the new collection Clara showed an interest in on the website.



While unpacking her redesigned vintage dress, Clara finds a secure code giving her access to a digital twin of her new dress and a digital toolbox to help her create generative AI-powered content for her social networks. For instance, she now has access to digitally reimagined photos showing her wearing recently purchased pieces in her favorite destinations and tips on how to create original posts with the products she already owns.



Part 3: Giving AI its rightful place: the imperatives of a value-creation strategy

“For a solution to be adopted, code represents maybe 10% of the work, integration into systems 20%, and implementation and change management within the company and for teams 70%.”

Gonzague de Pirey, Chief Omnichannel and Data Officer, LVMH

To successfully embrace AI, *Maisons* face a broader challenge than just developing or purchasing technological solutions; they need to grasp all the intricacies of the way these solutions will interact with their business challenges if they are to provide a strong impetus to accelerate change and ensure team buy-in.

Imperative #1 - Place AI at the heart of business challenges and executive committee priorities

Far from being a purely technological matter, AI is set to reshape the luxury goods industry and must be placed at the strategic heart of groups and *Maisons*. It is the executive committee’s role to define a clear vision in line with business priorities: the boundaries of legitimate deployment for each *Maison*; the areas of application with strong differentiation potential; the operational and commercial impact, and so on. This push given by the executive committee will be crucial in focusing efforts and enabling AI teams to determine which initiatives they should prioritize in the roadmap, especially those aimed at developing proprietary solutions.

In addition, like any priority topic on the executive agenda, AI's impact needs to be measured and monitored. For the time being, this is a work in progress for *Maisons*, as LVMH's Gonzague de Pirey points out: "Measuring the impact of our AI solutions, with a transparent process coordinated by our financial controllers, is essential to increase the credibility of our solutions and deploy them at large scale." Data from pilot projects should be used for these purposes and to quantify the economic equation for mobilizing resources.

Imperative #2 - Make data more usable and deploy the AI platforms needed for application development

Scaling up AI solutions requires substantial effort on technological fundamentals, both in terms of data governance and on the tools needed to develop use cases.

This involves making data more accessible and usable (collecting more data, harmonizing and integrating systems, sharing key data, improving quality, etc.) and deploying the necessary infrastructures for the development of AI use cases. Richemont, for example, is implementing a unified, customizable data platform, available to all its *Maisons*. Each one can leverage the platform autonomously to develop its own use cases, while benefiting from ready-to-use environments and modern capabilities.

While recent efforts have focused on structured data, generative AI opens new fields of value creation through data, by capitalizing on unstructured data (such as text, images, video, and code). This massive use of unstructured data reinforces the governance challenge of guaranteeing the confidentiality of personally identifiable information (PII) and other critical data. The management of these risks should be entrusted to a governance body that does not involve internal data or IT teams.

Beyond governance, the quality and reliability of the unstructured data needed for the effective training of AI models represents a major challenge for *Maisons*. "Feeding our systems with accurate and usable data, collecting and structuring such data, [these tasks] remain our main implementation challenges. Our teams could be frustrated about this: AI may be perceived as a game changer, but it comes with prerequisites in terms of data quality," confirms Longchamp's Hervé Stab.

For generative AI, companies are turning to specific platforms (such as Microsoft Azure AI Studio, Google Vertex, or Amazon Bedrock) to connect existing data sources with the latest models and develop use cases.

Imperative #3 - Set up a data/AI office to deploy use cases and break down the silos between business and technology

Like all technology projects, AI requires close collaboration between operational teams, who bring their business experience and understanding of functional requirements, and the tech/data teams in charge of developing use cases. For Richemont chief data officer Thomas Meyer, this is a prerequisite for a successful AI program: "The development of solutions must be done as close as possible to the business and our *métiers*. Developing solutions without fully understanding the challenges faced by users, whether they are in our boutiques or in our manufacturing facilities, cannot lead to relevant results and are even less likely to generate value."

Companies deploying artificial intelligence on a large scale tend to set up a data/AI office: a dedicated team with the required skills and the ability to develop prototypes rapidly. The very existence of this team enables use cases to be deployed in an agile way, and innovation to take place at a much higher speed than in an organization where the task would be entrusted to existing product teams.

The data/AI office and the IT department play a key coordinating role between the various departments. They are accountable for consolidating business needs, coordinating the critical prioritization and funding process to balance value vs. risks, taking “make or buy” decisions, and managing change across teams.

Within groups, the orchestration and deployment of AI solutions must respect a subtle balance between synergies and autonomy. In this context, synergy between *Maisons* means accelerating access to technology for smaller *Maisons* and generating scale effects, while limiting the proliferation of shadow IT (i.e., the siloed deployment of independent solutions, generally duplicating each other, and not referenced in IT costs). And autonomy means allowing each *Maison* to create its own model at its own pace. Luxury groups seem to be skillfully managing this equilibrium, as explained by Kering’s Grégory Boutté: “The group’s role is twofold: to launch initiatives that align with the needs of the houses and to implement the successful ones across other houses.”

For Thomas Meyer, the Richemont Group follows the same logic: “We implement a hybrid approach. The group provides a secure technological platform and builds standard building blocks: for example, core data models. Our *Maisons* and functions can leverage these foundations to build their own customized applications and use cases, whether it is business intelligence (BI), machine learning or AI. For *Maisons* that do not yet have a dedicated team, we provide resources that are embedded into their teams and train their future experts in parallel.”

Imperative #4 - Putting talent at the heart of AI’s quiet revolution

Beyond the deployment of AI solutions, ensuring team buy-in and the integration of tools into their day-to-day is a major challenge, as Louis Vuitton Malletier’s Christophe Plouseau explains: “Trusting AI is a real challenge. Our employees need to understand how AI generates the results to have full confidence in using them. For sales prediction, for example, employees will only use AI-derived forecasts if the weighting of the main factors used by the algorithm is transparent and traceable. To encourage adoption, we work with human resources to integrate modules on AI solutions in our corporate training curriculum.”

Usually, the data/AI office, supported by HR teams, plays a critical role in anticipating and accompanying the company’s transformation. Regular communication of tangible successes (either related to business impact or the improvement of day-to-day activities) helps teams measure the empowerment and value that AI can bring.

The adoption of use cases will necessarily lead to a redefinition of all roles. That’s a point of view shared by Jérôme Joutard of Parfums Christian Dior: “Analytical and generative AI open opportunities for our *métiers*, with efficiency and productivity gains. It’s a real revolution, but it’s still an assistance or augmented intelligence. There will be a widening gap between those who master AI for their *métiers* and the rest.”

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Training needs in every department will evolve, as all employees will need to understand and adapt to new AI-assisted practices.

Lastly, employee experience sharing and feedback will help create an environment conducive to the democratization of AI. Forums can be set up through communities bringing together different functions, with the aim of improving skills evenly across the company. A *modus operandi* that is destined to spread across all *Maisons*.

Methodology

Twenty artificial intelligence use cases that directly serve—or could serve—strategic objectives of the luxury goods sector are at the heart of this study. They concern product development, customer engagement, operational excellence, and organization. In other words, they cover the entire value chain.

This selection, comprising the mature and emerging use cases listed below, enables the effective tracking of adoption levels.

- **Product design:** image generation and design for ideation and product conception (e.g., creation of mood boards, photorealistic images)
- **Trend prediction:** identification and prediction of consumer and product trends through analysis of large sets of unstructured data available online (e.g., social listening, customer reviews, and press articles)
- **Marketing content generation:** automated content generation (e.g., text, photos, and videos) for marketing campaigns and e-commerce websites
- **Community management:** social media and community management (e.g., moderation of comments)
- **Personalized communication:** personalized content (e.g., newsletters and adverts) based on audience specifics (e.g., preferences, location, and contextual information)
- **Customer segmentation:** Identification of customer segments as a prelude to engagement through a tailored marketing strategy and personalized messaging to generate additional sales
- **Personalization of sales associate interactions with customers:** sales scripts and personalized product or services recommendations for sales associates
- **Website personalization:** generation of personalized content (e.g., web pages and product descriptions) based on users' characteristics (e.g., demographics and purchase history)
- **Direct-to-customer recommendations:** personalized recommendations delivered directly to customers (in store or at home), with virtual try-on possibilities
- **Store footprint optimization:** data analysis (e.g., social and demographic data, competitor locations, customer flow analysis and store performance) to select optimal store locations

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- **Customer service:** generation of personalized emails and conversational replies for customer service centers (e.g., suggesting a reply to an email or generating a script for a phone conversation)
- **Chatbots:** shopping assistant and virtual support for customer inquiries
- **Counterfeit detection:** visual recognition technology to detect counterfeits
- **Quality control:** production quality control based on image training and optical systems
- **Prediction of sales volumes:** predicting production and sales volumes based on historical data
- **Automated operations:** automation of operations (such as warehouses) and inventory management
- **Stock allocation:** algorithms to optimize allocation of stock to boutiques based on demand
- **Employee training:** tailored training content recommendations based on roles and performance
- **Recruitment:** tools to assist recruiting processes (e.g., the creation and publication of job descriptions and automated CV screening)
- **Knowledge management:** centralization and support for employees in capturing, collecting, and structuring the company's knowledge base (such as internal databases and employee knowledge)

The study was conducted jointly by Bain & Company and Comité Colbert between May and July 2024. It relies on three main data sources:

1. An **online survey**, on artificial intelligence strategy and the level of adoption of 20 selected use cases
2. **Interviews with executives from *Maisons* and technology partners** to specify applications in the luxury sector
3. General research and Bain & Company's experience.

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When analyzing survey results, the following methodology was applied:

- **All answers** were considered on each question (n=35 responses)
- **The average adoption and acceptance were adjusted based on each category's market share within the global luxury market in 2023** (the categories being fashion and accessories, jewelry and watches, perfumes and cosmetics, wines and spirits, tableware, design and furniture). Data from the Bain-Altgamma Luxury Goods Worldwide Market Study were used for this weighting.
- The **adoption rate of each use case** takes into account the share of respondents who have deployed it ("deploying/deployed at scale")
- The **test rate of each use case** ("in pilot/evaluation") takes into account the share of respondents performing a pilot ("developing/piloting the solution") and 33% of the share of respondents evaluating the opportunity ("evaluating the opportunity or planning")
- *Maisons* have been **classified according to their size in terms of revenue**: large *Maisons* are deemed to be those with annual revenue in excess of €3 billion, medium-sized *Maisons* are those with €200 million to €3 billion in annual revenue and small *Maisons* have less than €200 million in annual revenue.

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Depuis 1954

Founded in 1954 by Jean-Jacques Guerlain, Comité Colbert is a unique collective gathering 95 French luxury *Maisons*, 18 cultural institutions, and six European luxury *Maisons*. Through its members, Comité Colbert unites 14 different *métiers*: crystal, leather goods, design, publishing, *faïence* and porcelain, gastronomy, *haute couture* and fashion, jewelry and horology, music, silver smithery, luxury hotels, fragrance and cosmetics, heritage and museums, and wines and spirits.

Comité Colbert's mission is conveyed in its *raison d'être*: to passionately promote, to sustainably develop, and to patiently transmit French *savoir faire* and creation to infuse a new sense of wonder.

Our actions aim to collectively promote French *art de vivre* on the world stage, to preserve French *savoir faire* and creation, and to participate in their transmission to new generations.

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