



FASHION REPORT

EXOTIC SKINS

THE NEXT-GEN TRANSITION AT EQUAL VALUE

Economic analysis, supply chain risks and transition to next-gen materials at equal value

Analytical document addressed to luxury brands

LAV - Lega Anti Vivisezione ETS

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Abstract

Brands manage a costly compliance infrastructure, a high reputational risk and growing regulatory exposure to protect a line that is worth less than 0.5-1% of total revenue. Next-gen (animal-free) materials available today make it possible to preserve price positioning and margins - provided the brand keeps desirability, perceived quality, craftsmanship and product scarcity unchanged - while eliminating these overhead costs at the same time.

This document is produced by LAV - Lega Anti Vivisezione ETS as part of its dialogue with luxury brands that use skins from exotic species. The analysis is based on three main sources: public market data on the international trade in exotic skins; verification of the e-shops of major luxury brands (Hermès, Louis Vuitton, Fendi, Prada, Gucci and others); financial and sector data for the estimation of costs and margins.

The luxury market generated global revenues of over \$380 billion in 2024. Exotic skins - crocodile, python, monitor lizard, ostrich - represent a component of very high symbolic value but with a marginal economic weight within the product portfolio of individual brands: LAV's estimate indicates that the exotic line of a large luxury brand is typically worth less than 0.5% of total revenue. Against this limited contribution, brands bear a CITES compliance overhead estimated at between €100,000 and €400,000 a year per programme, growing reputational risk and rapidly expanding regulatory exposure.

The document shows that at least three leading brands - Hermès, Louis Vuitton, Fendi - maintain active lines of genuine exotic-leather products, with prices ranging from €9,000 to over €150,000 per item. It emerges that transparency towards the consumer on the species used is systematically absent or insufficient even among brands that communicate advanced sustainability policies.

Several next-gen materials are today at growing stages of industrial development - from mycelium (Reishi, developed by MycoWorks and used by Hermès in 2021; Hydefy, showcased by Stella McCartney) to cactus (Desserto), to Modern Meadow's INNOVERA - and are increasingly approaching the aesthetic of exotic skins. It should be noted honestly that, according to industry operators, these materials do not yet constitute in all cases a direct substitute in terms of technical performance (particularly tear strength, tensile strength, and finish adhesion), and that the sector is subject to significant industrial volatility (see note in §5.2). The Hermès precedent (Victoria Sylvania, 2021) nonetheless shows that a major luxury house is willing to experiment with next-gen materials at a commercial level, and Kering's public commitments at Capital Markets Day 2026 (-30% leather dependency by 2028; 40% alternative materials by 2035 - portfolio diversification, not abandonment of leather) confirm that the topic is now strategic at the highest level of the market.

The document sets out LAV's formal requests across three time horizons (first half of 2027, 2028, 2030) and proposes a gradual transition path consistent with the strategic trajectory the sector is already following.

Summary for management

Exotic skins are a line of very high symbolic value but marginal economic weight, managed at the cost of disproportionate costs, risks and complexity. Next-gen materials now make it possible to replace it at equal price, margin and desirability. The transition is not an economic sacrifice: it is the most rational capital-allocation choice. Key points:

1. Marginal economic weight. EU imports of reptile leather (~€867 million a year) are equivalent to about 0.2% of the world personal luxury goods market (~€364 billion in 2024, Bain-Altagamma); for a large diversified group, the exotic line is worth less than 0.5-1% of total revenue.

2. In luxury, value does not lie in the raw material. Between 2019 and 2023, over 80% of luxury growth came from price increases, not volumes (McKinsey & Business of Fashion). Replacing exotic skins with a next-gen material of equal aesthetics and performance makes it possible to preserve price and margins, provided desirability, craftsmanship and product scarcity remain unchanged.

3. From cost to capital. The transition is not a cost cut but a reallocation of resources (CITES compliance, brokers, customs, risk management) towards R&D, product innovation and supply-chain digitalisation.

4. Next-gen materials show encouraging technical results, with room for improvement. Independent third-party testing (CTC Groupe, Lyon) on Reishi: abrasion resistance up to 25,600 cycles (Martindale), flex resistance up to 20,000 cycles (Bally), tensile strength 14–18 MPa (ISO 3376) - a value reached after the introduction of a new tanning technology (Rei-Tan) that significantly raised tensile strength compared to earlier versions of the material; chrome-free tanning, embossable. Independent comparative testing was also conducted on Desserto against calfskin. According to several industry operators, mycelium-based materials do not yet represent, as of today, a direct (“drop-in”) substitute for cowhide on all parameters, particularly tear strength and finish adhesion.

5. The risk lies with those who stay. CITES obligations, documented seizures (Italy and the USA), growing reputational and regulatory exposure (EU Digital Product Passport, obligation not before 2028).

6. The market is already moving. Chanel (2018), Burberry (2022) and Marc Jacobs (2024) have abandoned exotic skins, as have retailers such as Selfridges, Nordstrom and MyTheresa and the Copenhagen, London and Berlin fashion weeks; LuxExperience B.V. is banning it from A/W 2026.

7. The fur-free precedent proves it. Luxury has already made a similar transition without economic damage: after going fur-free, Gucci more than doubled sales between 2016 and 2019. LAV was a key stakeholder, together with Fur Free Alliance partners, in those choices.

8. The burden of proof has shifted. The question is no longer whether next-gen materials can replace exotic skins, but what competitive advantage justifies maintaining the status quo.

In summary: the same value for the customer, less risk and complexity for the brand. The transition from exotic skins to next-gen materials is the most economically rational choice, as well as the most ethically consistent one.

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1. Introduction and scope of the analysis



Salvator merianae (tegu argentino). Image: João Pedro Scarpa Balestrieiro / Pexels (cropped image).

This document is produced by LAV – Lega Anti Vivisezione ETS as part of its dialogue with luxury brands on the use of skins from exotic species. It is based on three main sources: (i) public data on the international trade in exotic skins (CITES Trade Database, IACTS 2024 UNEP-WCMC, IUCN CSG); (ii) direct verification of the e-shops of major luxury brands; (iii) public financial data, scientific literature and sector sources for the cost estimates and the analysis of alternatives.

The analysis concerns skins of species protected under CITES Appendix II – primarily crocodilians, pythons and monitor lizards – and their economic, reputational and regulatory impact on the luxury brands that use them. Products with embossed or printed textures (non-genuine) are excluded.

The aim is to build a data-driven case supporting the transition of luxury brands towards alternative, next-gen and therefore animal-free materials in place of exotic skins, showing that this transition is financially neutral or positive and consistent with the sector's competitive trajectories.

2. Exotic skins in luxury - sector overview

2.1 Most used species and CITES regulatory framework



A Nile crocodile (*Crocodylus niloticus*) basks on a sandy riverbank in South Africa. Photo: Christiaan Nel, Pexels License (cropped)

The exotic species most used by luxury leather goods are all subject to CITES Appendix II, which means that every international commercial transaction - from the purchase of the raw skin to the import of the finished product - requires specific permits, documented traceability and a Non-Detriment Finding (NDF).

Tab. 1 - Main exotic species in luxury leather goods and CITES status

Species	Common name	Main origin	Luxury use	CITES
<i>Crocodylus niloticus</i>	Nile crocodile	South Africa, Zimbabwe, Botswana	Bags, top-tier leather goods	App. II (selected populations)
<i>Alligator mississippiensis</i>	American alligator	USA (Louisiana)	Bags, ultra-luxury accessories	App. II
<i>Crocodylus porosus</i>	Saltwater crocodile	Australia, Papua New Guinea	Bags and accessories	App. II
<i>Python bivittatus</i>	Burmese python	Vietnam (captive)	Bags, belts, accessories	App. II
<i>Malayopython reticulatus</i>	Reticulated python	Indonesia (wild), Vietnam (captive)	Leather goods, apparel	App. II
<i>Varanus salvator</i>	Water monitor	Indonesia, Thailand (wild)	Lizard skin bags, accessories	App. II
<i>Caiman yacare</i>	Yacare caiman	Bolivia (wild)	Secondary leather goods	App. II
<i>Struthio camelus</i>	Ostrich	South Africa (captive)	Bags, accessories	Not in Appendix (farmed)

Source: CITES Trade Database (UNEP-WCMC); IACTS 2024 (UNEP-WCMC / John Caldwell); IUCN Crocodilian Specialist Group.

A note on the ostrich (*Struthio camelus*). Unlike crocodilians, pythons and monitor lizards, farmed ostrich skins are not included in the CITES Appendices: they circulate freely and do not appear in the CITES Trade Database (which is why they are not shown in the import tables in section 2.2). Although it remains outside the CITES scope, the ostrich is to all intents and purposes an exotic skin, and indeed the most traded in the world by volume; the global market for raw ostrich skin is worth around \$48 million (2025), contracting, with farming concentrated in South Africa.

The legal trade in crocodilian skins amounts to around 1.2-1.5 million skins a year globally (IACTS 2024, UNEP-WCMC). Europe - and France and Italy in particular - is the main destination market, being home to the tanneries and maisons that work these materials. Italy is today the leading importing State in the Union: in 2022 it imported over 75,000 Nile crocodile skins and, overall, over 580,000 whole reptile skins, largely from wild capture (see § 2.2)..

Documented seizure risk: between 2016 and 2021 the US Fish and Wildlife Service (USFWS) seized almost 200 shipments of reptile-leather goods at the US border, mostly traceable to major luxury maisons including Hermès, Louis Vuitton and Gucci (source: Business of Fashion, analysis of USFWS data, 2024). Reptile skins accounted for 10% of all CITES seizures in the EU in 2022 (source: TRAFFIC / European Commission). This shows that the risk of non-compliance in the exotic supply chain is concrete and systematically present even among the most structured brands.

Seizures also documented in Italy. In 2024-2025 the Italian authorities (Guardia di Finanza and Agenzia delle Dogane e Monopoli) carried out numerous seizures of exotic leather goods: at the Como border crossing around 70 items (22 bags, 18 belts, 30 pairs of footwear, worth around €25,000) in Mississippi alligator, Burmese python, reticulated python and Nile crocodile; at Fiumicino airport over 45 crocodile skins with falsified markings and reptile-leather footwear declared as bovine leather; in the international operation THUNDER 2025, boots in crocodilian and python leather. The EcoAtl@nte platform (2026) confirms that reptile skins are among the most recurrent categories in CITES seizures in Italy (source: LAV, Zoomafia Reports 2024-2026).

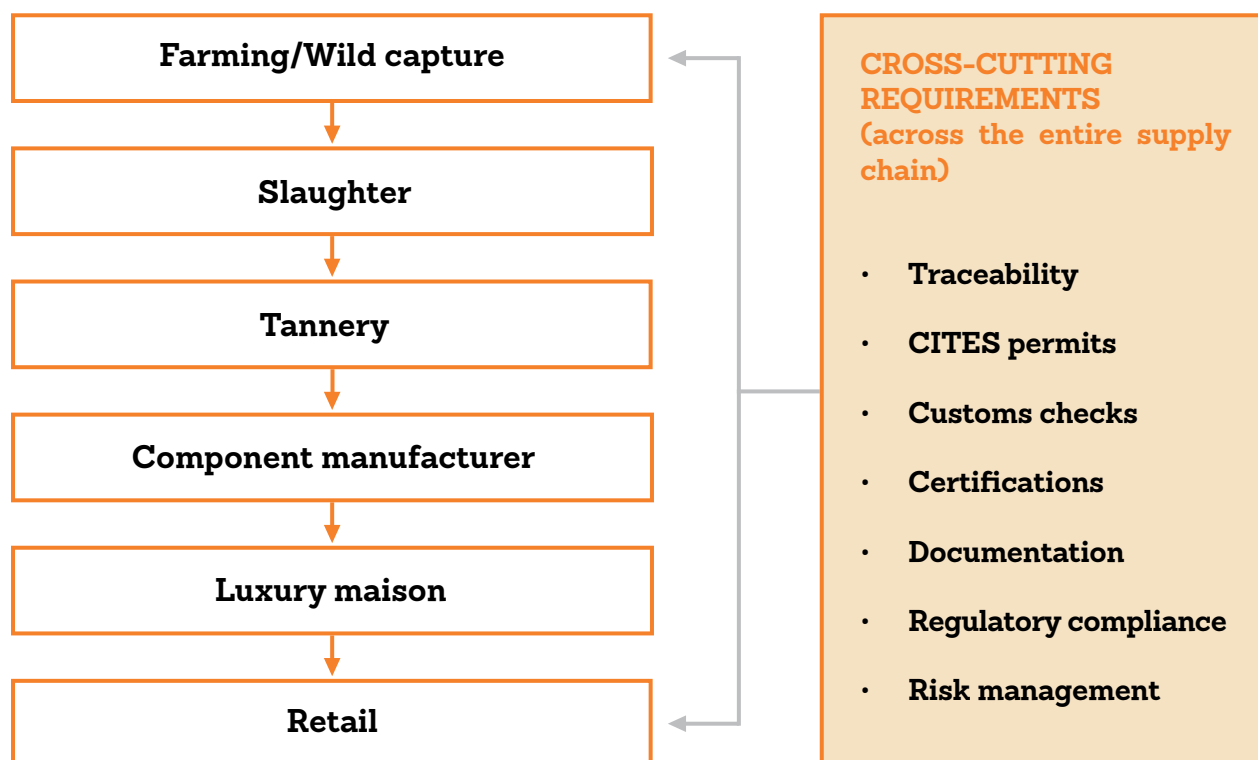


Fig. 1 - The exotic skins supply chain and the cross-cutting compliance requirements affecting every stage (LAV analysis).

2.2 EU and Italian imports: volumes, origin and prevalence of wild harvesting



A wild alligator (*Alligator mississippiensis*) walks through grassy wetlands, showcasing its natural habitat. Photo: Dirk Schuneman, Pexels License (cropped).

Analysis of official CITES Trade Database data (UNEP-WCMC for the CITES Secretariat) makes it possible to quantify the volumes of reptile skins imported into Italy and to distinguish their origin: wild capture or farming (captive-bred and ranched). The picture, updated to the 2020-2022 three-year period, confirms and reinforces the evidence already found by LAV in the Fashion Report on exotic skins (2022).

The table below shows whole reptile skins imported into Italy in 2022, by species and origin, expressed as number of individuals.

Tab. 2 - Italian imports of reptile skins: trend over 2020-2022

Year	Wild	Farmed	Total	% Wild
2020	259,109	104,076	363,185	71%
2021	378,814	125,205	504,019	75%
2022	439,409	141,463	580,872	76%

Source: CITES Trade Database, Gross Imports Report (Italy, purpose T, term “skins”), Wild and Farmed supply chains (C - Captive-bred + R - Ranched) queried separately; LAV analysis. 2020-2022 is the period with complete annual CITES reporting. Economic values (in euros) and the EU-level aggregate can be obtained from the EU Wildlife Trade reports (UNEP-WCMC for the European Commission), which include value estimates not present in the CITES Trade Database.

Tab. 3 – Italian imports of whole reptile skins by species and origin (2022)

Species	Common name	Wild	Farmed (captive + ranches)	Total
Varanus salvator	Water monitor	227,041	–	227,041
Alligator mississippiensis	American alligator	199,614 *	100	199,714
Crocodylus niloticus	Nile crocodile	–	75,288	75,288
Python bivittatus	Burmese python	–	50,385	50,385
Malayopython reticulatus	Reticulated python	6,963	6,242	13,205
Crocodylus porosus	Saltwater crocodile	291	6,018	6,309
Salvator merianae	Argentine tegu	4,001	–	4,001
Caiman crocodilus fuscus	Spectacled caiman	–	3,400	3,400
Caiman crocodilus crocodilus	Spectacled caiman	985	–	985
Python brongersmai	Blood python	508	–	508
Other (S. rufescens, C. c. yacare)	Other species	6	30	36
TOTAL 2022	–	439,409	141,463	580,872

Source: CITES Trade Database (trade.cites.org), Gross Imports Report – importer Italy, commercial purpose (T), term “skins” (whole skins); LAV analysis, accessed June 2026. Rows in kg are excluded; the unspecified unit is counted as number of individuals according to CITES convention.

* The American alligator is coded as “wild” in CITES, but in fact comes from a ranching system (eggs collected in the wild and animals raised in captivity): these are therefore farmed individuals, classified as wild for commercial purposes only (see § 2.2).

Over the full three-year period, the overall volume of whole skins imported, and the share of wild origin are as follows.

The data on “wild” origin should be read carefully. In 2022, 76% of whole skins imported into Italy were coded in CITES as “wild” (wild capture). The figure is, however, partly overstated: the American alligator – the second species by volume (around 200,000 skins) – is recorded as wild but in fact comes from a ranching system (eggs collected in the wild – hence coded as ‘wild’ – raised in captivity, with a small share of individuals released back). In the United States, around 400,000 alligators a year are produced through this system, against ~24,000 wild adult captures. The harvesting of genuinely wild-caught individuals is instead driven by the water monitor (*Varanus salvator*, around 227,000 individuals), a species with no commercial farming. The fact remains that the supply chain depends to a very significant extent on the direct capture of wild individuals and, for the remaining share, on ranching and intensive farming: models that both raise serious animal-welfare and conservation concerns.

Volume is not decreasing: it is growing. From around 370,000 raw skins imported in 2018, the figure rose to over 580,000 in 2022. The 2020 low reflects the pandemic contraction, followed by a clear recovery over the following two years. Demand for exotic skins destined for leather goods therefore remains robust and expanding in terms of the number of individuals involved.

The breakdown by origin. In summary: the water monitor comes from direct wild capture; the American alligator from ranching (coded as “wild”); the Nile crocodile (*Crocodylus niloticus*) and the Burmese python (*Python bivittatus*) entirely from farming (ranching in Zimbabwe and farming in Vietnam, respectively). The reticulated python is now classified as *Malayopython reticulatus* (formerly *Python reticulatus*).

Methodological note: the volumes reported here, based on the Gross Imports Report of the CITES Trade Database, may differ from other sector sources (e.g. IUCN CSG, IACTS) due to differences in scope and calculation method (import records versus net flows). The two sources should be kept separate and not added together. 2022 is also the last year with consolidated data: countries' annual CITES reporting has a lag of around two years.

The EU-level picture. According to the EU Wildlife Trade 2022 report (UNEP-WCMC for the European Commission), in 2022 the European Union imported around 1.2 million whole reptile skins, 80% of which from wild capture, up 47% on 2021. LAV's analysis of the CITES Trade Database (all origins) places Italy as the leading importing State in the Union (around 42% of the total), ahead of France (around 30%) and Germany (around 24%); the dominant species are the American alligator (42%), the water monitor (29%) and the Nile crocodile (14%). Compared to 2019, when France and Italy shared leadership with 36% each, **Italy is now the leading European importer of reptile skins.**

The economic value of the trade. The report also quantifies the value of imports for the first time: in 2022, EU imports of CITES-listed animals were worth €1,003.1 million, of which reptile skins (€260.2 million) and small reptile-leather goods (€607.1 million) alone account for 87% of the total (€867.3 million). The American alligator alone accounts for 65% of the value of skins (€169.6 million) and 95% of that of small leather goods (€575.5 million). The estimated average value is €233.4 per skin.

Tab. 4 - Value of EU imports of reptile skins and leather goods (2022)

Item (EU imports 2022)	Value (€ million)	Share of CITES animals
Small reptile-leather goods	607.1	–
Reptile skins	260.2	–
Total reptile leather	867.3	87%
Total CITES animals (all categories)	1,003.1	100%

Source: UNEP-WCMC, *EU Wildlife Trade 2022 (2024)* for values in euros and the EU aggregate; CITES Trade Database (LAV analysis) for the breakdown by Member State and species.

Applying the EU average unit value to the national volume, the roughly 580,000 whole skins imported into Italy in 2022 are worth in the order of €135 million in raw material alone. **While it is by far the most significant CITES animal commodity by value, the entire EU market for exotic reptile skins (just over €860 million a year in imports) remains a minimal fraction of the luxury leather goods sector's revenue;** and for the individual brand, the exotic line is confirmed as a marginal revenue item, as detailed in section 4. The value estimate for Italy is a LAV calculation: the number of skins imported into Italy in 2022 (around 580,000) is multiplied by the EU average unit import value (around €233 per skin, derived from official EU data), giving a raw-material-only value of around €135 million.

2.3 Reptile species in the leather supply chain: the SARCA list



An Asian water monitor (Varanus salvator) moves through bamboo and grass, displaying natural wildlife behavior. Photo: Erik Karits, Pexels License (cropped).

The Southeast Asian Reptile Conservation Alliance (SARCA) - a technical platform led by industry operators (luxury maisons, tanneries, intermediaries, trade associations and academic and government institutions), which merged into IMARC (International Multistakeholder Alliance for Reptile Conservation) in 2024 - published the list of Asian reptile species traded for skins. The list is relevant to assessing supply-chain risk for two reasons.

Of the 25 species surveyed, only one does not involve sourcing from wild capture.. The reptile skin supply chain therefore remains structurally tied to the harvesting of wild individuals, with all the resulting concerns in terms of traceability, animal welfare and impact on biodiversity.

For 10 of the 25 species, skin is the primary commercial purpose of capture, and a secondary one for a further 13. This disproves the claim that skin is a mere “by-product” of the food industry: for most species, the fashion industry is the primary, not incidental, driver of the exploitation of these animals.

Tab. 5 - Reptile species in the SARCA database: farming, capture and purpose

Species	Main country of origin	Farming	Wild capture	Commercial purpose	CITES
Acrochordus javanicus	Indonesia	No	Yes	Skin, Meat	No
Boiga dendrophilia	Indonesia	No	Yes	Skin, Meat, TCM	No
Cerberus rynchops	Indonesia	No	Yes	Meat, Skin, TCM	No
Coelognathus radiata	China, Vietnam, Indonesia	Minimal	Yes	Meat, Skin, TCM	No
Cylindrophis ruffus	Indonesia, Cambodia	No	Yes	Meat, Skin, TCM	No
Daboia russelli	Various	No	Yes	Meat, Skin, TCM	III
Elaphe carinata	China, Vietnam	Yes	Yes	Meat, Skin, TCM	No
Enhydrys boucorti	Vietnam, Cambodia	Yes	Mostly	Meat, Skin, TCM	No
Homalopsis buccata	Vietnam, Indonesia, Cambodia	No	Mostly	Skin, Meat, TCM	No
Lapemis curtus	Malaysia	No	Yes	Skin, Meat	No
Naja kouthia	China, Vietnam, Malaysia	Yes	Minimal	Meat, TCM, Venom	II
Naja naja	China, Vietnam	Yes	Minimal	Meat, TCM, Venom	II
Naja sputatrix	Indonesia	No	Yes	Meat, Skin, TCM	II
Orthriophis taeniurus	China	Yes	Yes	Meat, Skin, TCM	No
Python bretensteini	Indonesia, Malaysia	No	Yes	Meat, Skin, TCM, Pet	II
Python brongersmai	Indonesia	No	Yes	Skin, Meat, TCM, Pet	II
Python curtus	Indonesia	No	Yes	Skin, Meat, TCM, Pet	II
Python bivittatus	Vietnam, China, Thailand	Yes	No	Skin, Meat, TCM, Pet	II
Python reticulatus	Indonesia, Vietnam, Malaysia, Thailand	Yes	Yes	Skin, Meat, TCM, Pet	II
Ptyas mucosa	Vietnam, China, Indonesia	Yes	Yes	Meat, Skin, TCM	II
Varanus salvator	Malaysia, Indonesia	No	Yes	Skin, Meat, TCM	II
Xenopeltis unicolor	Indonesia	No	Yes	Skin, Meat, TCM	No
Xenochrophis vittatus	Indonesia	No	Yes	Meat, Skin, TCM	No
Xenochrophis piscator	Cambodia	No	Yes	Meat, Skin, TCM	No
Enhydrys enhydryis	Indonesia, Cambodia	No	Yes	Meat, Skin, TCM	No

Source: SARCA - Welfare Principles for Snakes and Monitor Lizards in the Southeast Asian Skin Trade (2018) and Responsible Reptile Sourcing Standard (RRSS). TCM = Traditional Chinese Medicine. The scope of the RRSS covers 27 species of snakes and lizards, all wild-caught, from the main exporting countries (China, Indonesia, Malaysia, Thailand, Vietnam).

2.4 The animal welfare framework: OIE/WOAH provisions



Intensive crocodile farming. Image: Farm Transparency Project, CC BY 4.0 (cropped).

The only international instrument that, albeit partially, governs the methods used to kill exotic animals for their skin is the Terrestrial Animal Health Code of the World Organisation for Animal Health (OIE, renamed WOAH - World Organisation for Animal Health - in 2022). The Code devotes chapter 7.14 to recommendations for the killing stage of reptiles farmed for the production of skin, meat and other products. At European level, the only relevant rule - Regulation (EC) 1099/2009 on the protection of animals at the time of killing, applicable to animals farmed for the production of food, wool, skin, fur or other products - expressly excludes reptiles and amphibians from its scope (Art. 2 and recital 19), leaving them without specific binding protections at the time of killing: the only available references - international standards and sector guidelines (e.g. WOAH) - are not binding. There is also no species-specific rule governing the capture, farming and transport stages for these animals. The **brands themselves state in their sustainability reports that they comply with CITES and Regulation (EC) 338/97: rules that, however, govern trade, not animal welfare or killing.**

Analysis of these provisions reveals structural limits that make them insufficient to guarantee real protection. Chapter 7.14 applies only to reptiles (chelonians, crocodilians, saurians and ophidians) and only to the killing stage, leaving all other exotic species and all other stages of the supply chain without protection. The provisions are recommendations, not binding standards, and are not accompanied by a credible system of public or private oversight verifying their application to the individual animal along the entire supply chain.

The same Code lists, in Article 7.14.17, the killing methods considered unacceptable because they are extremely cruel: **exsanguination, freezing or chilling, heating or boiling, suffocation or drowning, insufflation with gas or compressed liquids, evisceration or skinning while alive, constricting ligatures to induce cardiac arrest, inhalation of asphyxiating gases, use of paralysing drugs and cervical dislocation.** The explicit listing of these practices is significant precisely because they represent, historically, the most widespread methods of killing snakes, crocodiles, alligators and lizards in every part of the world. Because of their slow metabolism, reptiles can also remain conscious for hours after skinning or decapitation.

Even the General principles for animal welfare in livestock production systems (chapter 7.1.5 of the Code) remain mere recommendations in the absence of species-specific management protocols and independent controls. It follows that, faced with millions of individuals killed every year, the exotic skins supply chain operates in a substantial vacuum of verifiable protection - an animal-welfare risk profile, and hence a reputational one, that falls directly on the brands that source from it. An article-by-article analysis is available in LAV's dedicated technical dossier (Fashion Report - Exotic Skins, 2022), which also examines

the lack of transparency in industry standards: the animal management protocols and the methods used to assess animal welfare adopted by operators are not made public.

2.5 Main luxury brands using exotic skins



A detailed image of a reticulated python (*Malayopython reticulatus*) showing its decorated scales and the intricate texture of its skin. Photo: Erdal Erdal, Pexels License (cropped).

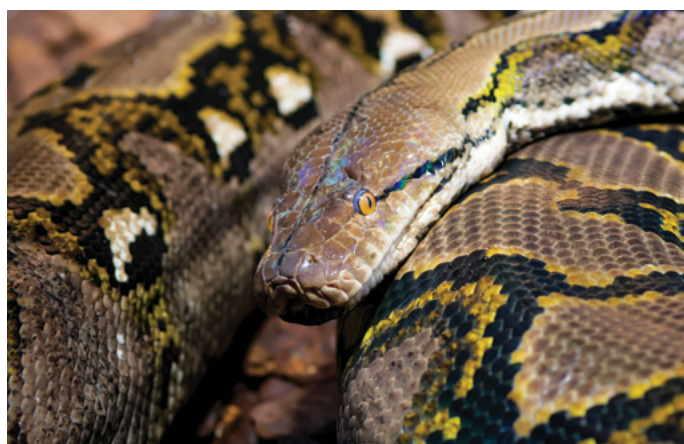
The following brands feature active genuine exotic-leather lines in their respective catalogues at the time of writing (July 2026). The list is indicative and not exhaustive.

Tab. 6 - Luxury brands with active exotic lines: declared species and transparency

Brand / Group	Active exotic lines	Declared species (official website)	Consumer communication *
Hermès	Birkin, Kelly, Constance, Lindy, Bolide - exotic-leather versions; belts, watches, accessories	Alligator mississippiensis, Crocodylus porosus, Crocodylus niloticus, lizard, ostrich	High: species explicitly declared on hermes.com/precious-leather
Louis Vuitton (LVMH)	Dedicated “Exotic Leather Bags” category: python, lizard, ostrich, crocodile; City Steamer Croc, Speedy P9 Crocodilien, Lady Bag	“Python, lizard, mink, ostrich and crocodile” (official website). CITES: “in certain cases, a CITES certificate accompanies the product”	Medium: dedicated category but species not always specified per product
Fendi (LVMH)	“Exotic Bags” section: Peekaboo ISeeU and Peekaboo Mini in crocodile, Baguette and Peekaboo in python	Crocodile (100% crocodile leather), python - declared in product pages	Partial: composition declared but species not always specified
Prada Group	Galleria (mini/small/medium) in croc, Brique croc, Galleria lizard skin	Consumer description: “crocodile” (generic); on the Brique product page the material is listed as American Alligator — commercial name and declared species do not match.	Low and inconsistent: commercial name (“crocodile”) and declared species (American Alligator) not aligned.
Loro Piana (LVMH)	Accessories and small leather goods in crocodile and python	Not systematically declared	Low
Gucci (Kering)	Python (Jackie Python Wallet); crocodile (Bamboo 1947 in crocodile and python)	Python, crocodile - declared on gucci.com	Low: “ethical / byproduct” claims disputed (investigation by CBS News 2024 ; 2024 class action over misleading advertising)

* “Consumer communication”: degree of transparency with which the brand declares to the customer, on its official website, the animal species used (high = species made explicit; low = generic wording such as “crocodile” or “lizard”).

2.6 The competitive landscape: who uses it, who has abandoned it, who is experimenting



Clockwise from top left: *Crocodylus niloticus* (Diego Delso, CC BY-SA 4.0); *Alligator mississippiensis* (Malcolm Manners, CC BY 2.0); *Malayopython reticulatus* (Rushenb, CC BY-SA 2.0); *Varanus salvator* (Carlos Delgado, CC BY-SA 4.0). Images cropped from the originals.

The mapping of brands with respect to exotic skins shows three distinct positions - those still using them, those who have abandoned them and those experimenting with next-gen materials - and an increasingly clear direction of travel. The global exotic leather market is worth around \$914 million (2024), of which crocodile alone accounts for around \$498 million: a niche, set against a steadily growing list of maisons that have already abandoned it (sources: Collective Fashion Justice and trade press; The Business of Fashion).

Tab. 7 - Landscape of fashion players: who uses, who has abandoned and who is experimenting with next-gen materials

Brand/Group/Retailer/FW	Position on exotic skins	Year/note
Hermès	Uses - genuine exotic skins	Own farms; crocodile, alligator, lizard
Louis Vuitton (LVMH)	Uses	LVMH crocodile sourcing standard since 2019
Dior (LVMH)	Uses	Lady Dior in crocodile, alligator, python
Fendi (LVMH)	Uses	Peekaboo in crocodile and python
Gucci (Kering)	Uses	Python, crocodile; Kering species-specific standards

Bottega Veneta (Kering)	Uses	Crocodile
Prada / Miu Miu	Uses	Crocodile, lizard
Chanel	Abandoned	2018 - first luxury maison
Burberry	Abandoned	2022
Victoria Beckham	Abandoned	2019
Mulberry, Jil Sander, Paul Smith, V. Westwood	Abandoned	2018–2020
HUGO BOSS; PVH (Calvin Klein, Tommy Hilfiger)	Abandoned	2019–2021
Marc Jacobs	Abandoned	2024
Stella McCartney	Never used	Exotic-free since inception
Selfridges, Nordstrom, Farfetch	Do not sell them	Phase-out 2020–2021
LuxExperience B.V. (MyTheresa, Net-a-Porter, Mr Porter, Yoox, The Outnet)	Banning exotic skins	from A/W 2026 (policy with LAV and HWA)
Copenhagen, London and Berlin Fashion Week	Banned on the runway	2023 / 2025
Hermès	Experimenting with next-gen	Mycelium - Victoria Sylvania (2021)
Kering (Gucci, Saint Laurent, Balenciaga)	Experimenting with next-gen	Desserto pilot (2025)
Stella McCartney	Adopts next-gen	Mirum, Hydefy

The most significant figure is the length - and growth - of the list of those who have already abandoned exotic skins. As already happened with fur, exiting exotic skins has not entailed any reported economic impact and involves leading brands, listed groups (PVH), department stores and entire fashion weeks. The transition is not a hypothesis: it is a process already under way, in which it is now those who stay behind who occupy the rear-guard position. A further signal: LuxExperience B.V. - which brings together Mytheresa, Net-a-Porter, Mr Porter, Yoox and The Outnet - has extended the fur-free logic to exotic skins, banning their sale from A/W 2026.

3. Exotic products in luxury catalogues - selected examples

The table below shows a selection of genuine exotic-leather products currently in the catalogues of major luxury brands. Prices, where indicated, are taken from official e-shops or accredited retail sources. The selection is indicative and not exhaustive; a complete mapping would require systematic verification by brand, market and season.

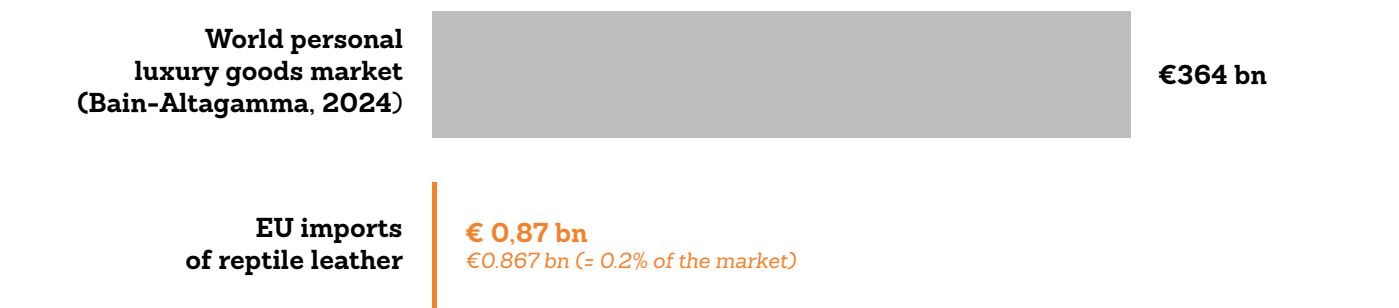


Fig. 2 - The weight of exotic skins in luxury: EU imports of reptile leather compared with the world personal luxury goods market (sources: Bain-Altagamma 2024; UNEP-WCMC).

Some examples of genuine exotic leather products

Fendi – Peekaboo ISeeU



Source: screenshot from the official website fendi.com

Prada – Galleria



Source: screenshot from the official website prada.com

Gucci – Men’s Jordaan loafer



Source: screenshot from the official website gucci.com

Hermès – Birkin



Source: screenshot from the official website hermes.com

Tab. 8 - Examples of exotic-leather products: brand, species, price and market

Brand	Product	Leather/ Species	Indicative price	Markets	Notes
Hermès	Birkin 30 (exotic edition) priveporter.com	Crocodylus porosus or C. niloticus ("porosus" or "niloticus" on product page)	\$30,000–\$300,000+	Global - SOH	Species explicitly declared. Price varies by size, colour, hardware. Hermès is also the brand that validated mycelium (Victoria Sylvania, 2021).
Hermès	Kelly 25/28/32 (exotic edition) sothebys.com	A. mississippiensis, C. porosus or C. niloticus	\$25,000–\$150,000+	Global - SOH	SOH = Sell Out of House; not available online, boutique only.
Louis Vuitton	Speedy P9 25 Crocodilien Mat (collab. Pharrell Williams) — louisvuitton.com > Exotic Leather Bags	Crocodylian ("crocodilien", species not specified)	n/a (limited series)	US (us.louisvuitton.com)	"In certain cases, a CITES certificate accompanies the product" (LV care instructions). Dedicated category: "Exotic Leather Bags".
Louis Vuitton	Crocodile Lady Bag PM — louisvuitton.com > Exotic Leather Bags	Genuine crocodile (species not specified)	~\$54,500	Selected	Among LV's most expensive products. Limited distribution
Louis Vuitton	City Steamer MM Crocodile — code N83245 (PM) official product page	Genuine crocodile (species not specified)	~\$55,500	Selected	LV's exotic category also includes python and lizard.
Fendi	Peekaboo Soft Medium (grey-taupe crocodile) — fendi.com > Exotic Bags	100% Crocodile leather (as declared on fendi.com product page)	n/a (pre-order)	SG, MY and others	Composition declared on product page: "100% crocodile leather". Species not specified.
Fendi	Peekaboo ISeeU Petite (crocodile) - code 8BN335AS75F1W6B_ official product page	Crocodile leather (100%)	\$ 24,200	US and others	Dedicated "Exotic Bags" section on fendi.com.
Fendi	Peekaboo Mini Precious skin (white / python) - code 8BN244AYVOFOYTC official product page	Crocodile leather or Python leather	\$ 28,900	MY and others	Multiple colours; python and croc as variants of the same iconic silhouette.
Prada	Galleria mini/small/medium crocodile leather bag — code 1BA863_M7Y8_F0458_V_ELO official product page	"Crocodile" (consumer label); species not specified.	€ 26,000–34,000	Global	Generic consumer label; species not declared.
Prada	Brique crocodile leather bag — code 2VH069_ULC_F0002_V_OMI official product page	Commercial name "crocodile"; under "Materials and care": American Alligator	89,000 SAR (~€ 21,000)	ME, Asia	Official prada.com product page: title and description "crocodile leather bag", declared material "American Alligator" — commercial name and species do not match (the alligator is not a crocodile). Price also listed as 80,000 AED.
Prada	Galleria lizard skin mini-bag — code 1BA906_MA37_F0377_V_ELM prada.com (official e-shop)	Lizard (consumer label); species not specified.	£ 7,800 (€ ~9,100)	Global	Species not declared to the consumer.

Gucci	Jackie Python Wallet – code 867165 LAALK 1000 gucci.com (official e-shop)	Python (consumer label)	~€2,500	Global (gucci.com)	Investigation by CBS News 2024 into the python supply chain (farms in Thailand; Caravel tannery, part of the Kering group).
Gucci	Men's Jordaan loafer (crocodile and python) – code 406994 EAAJZ 6638 gucci.com (official e-shop)	Crocodile + python	~€52,900	Global (gucci.com)	Top-tier exotic product. 2024 class action over “ethical / byproduct” claims.

Source: e-shops indicated in the “Product” column, last accessed 9 July 2026 (screenshots available).

4. Economic analysis - costs, margins and weight of the exotic line

This section estimates the economic weight of exotic skins within the cost and revenue structure of the luxury brands that use them. The analysis is based on public financial data from major luxury groups (Hermès, LVMH, Kering, Prada), wholesale prices of exotic skins from institutional sources (LDWF, IACTS 2024 UNEP-WCMC) and sector data.



Several alligators (*Alligator mississippiensis*) bask in the waters near the town of Mosca, Alamosa County, Colorado. Photo: mysurrogateband, Pexels License (cropped).

Key findings

Why the transition from exotic skins to next-gen materials is an economically rational choice

The economic analysis developed in this chapter leads to five main conclusions:

- 1. Exotic-leather lines represent an extremely small share of major luxury groups' business.**
Based on the publicly available data and the methodological analysis presented in this report, their contribution to overall revenue can be estimated at around **less than 0.5-1%**, despite being extremely high-positioned products.
- 2. The economic value of a luxury bag does not depend primarily on the raw material.**
Analyses by McKinsey and Business of Fashion show that the value created by luxury brands stems mainly from **brand equity, desirability, heritage, craftsmanship, scarcity and pricing power**, while the cost of the leather represents a marginal share of the final price.
- 3. Exotic skins require a complex and costly compliance structure.**
CITES permits, traceability, document management, customs checks, specialised staff and reputational risk make up a cost and risk infrastructure that does not exist for next-generation materials.
- 4. The transition can be understood as a capital-allocation decision.**
Eliminating an economically marginal but administratively complex line makes it possible to re-allocate financial and managerial resources towards materials innovation, research and development, supply-chain digitalisation and new competitive factors.

5. The luxury sector has already shown that a transition of this kind is possible.

The experience of the shift to fur-free, together with major groups' first investments in next-generation materials, shows that abandoning a category of traditional materials can happen without compromising the brand's positioning or its ability to create value.

In summary, the question is not whether exotic skins can still be marketed, but whether they continue to represent, for a major luxury group, **the most economically and strategically efficient choice** compared with the alternatives available today.

4.1 The economic weight of the exotic line: the 0.5% rule

How to read the table. The table shows typical values for a large luxury brand (parameter, reference value and note), drawn from public sector benchmarks: the share of revenue attributable to the exotic line alone is not disclosed by individual brands, so representative reference values are used. The 0.5% rule is derived from these parameters.

Methodological note on the estimate. In the absence of public data on the revenue of individual exotic lines - which brands do not disclose - the "0.5% rule" is not a disclosed figure but a conservative estimate built by LAV combining: (i) the share of leather goods in group revenue (45-60%, from official financial statements); (ii) the typical incidence of exotic skins within leather goods - a LAV estimate in the order of 5-10% of leather goods sales, built using public sector benchmarks (including Bain-Altagamma) and not published as such by those sources - driven upward by the few maisons most exposed to exotic skins; (iii) the limited volumes, restricted distribution and often made-to-order production of these lines. The result is an order of magnitude - below 0.5-1% of total revenue for a large diversified group - not a precise figure. The estimate is deliberately conservative: even doubling it would not change the conclusion.

Based on LAV's analysis and available sector indicators, it is possible to formulate an indicative estimate of the weight of exotic lines within major luxury brands:

Tab. 9 - Economic weight of the exotic line: typical values for a luxury brand

Parameter	Typical value for a large luxury brand	Notes
Group total revenue (e.g. Hermès 2024)	~€15.2 billion (Hermès) / €84.7 billion (LVMH)	Source: Annual Report 2024
Leather goods share	45-60% of net revenue	Varies by brand; Hermès ~55%, Prada ~45%
Typical luxury-leather gross margin	75-85%	Hermès FY2024: 42.9% EBIT/revenue; Prada: Gross Margin 78.8% (AR 2022)
Raw skin cost / selling price	<3-8%	Grade 1 raw skin: \$6,50/cm (farm gate LDWF); ~€15-38/cm finished. On a €26,000:bag ~€500-700
Estimated exotic line (% of total revenue)	<0.5-1%	MTO products, limited distribution, small volumes..

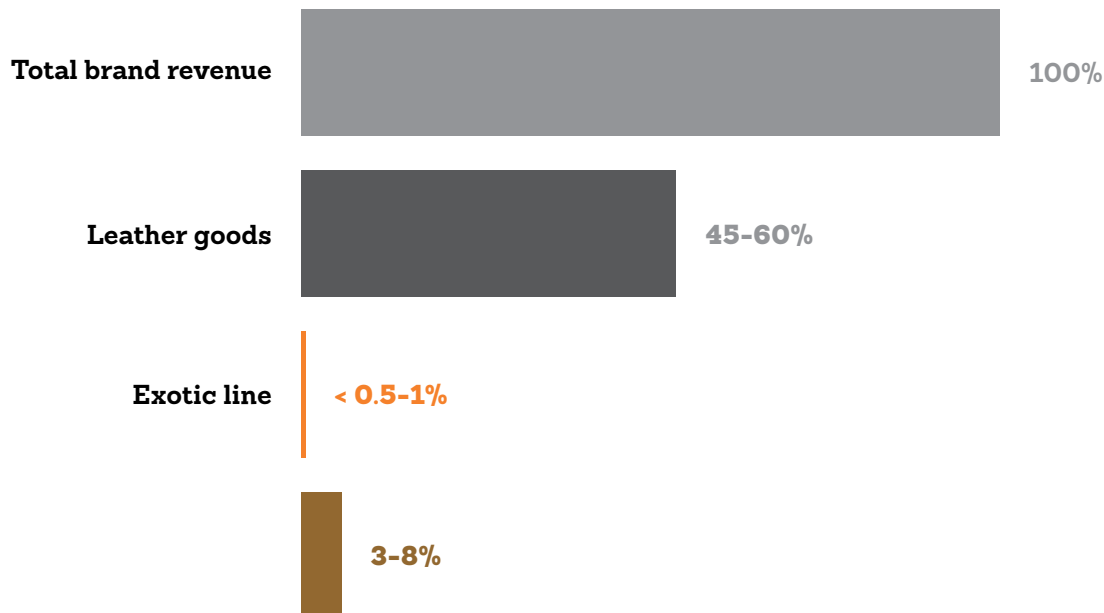


Fig. 3 - Typical revenue structure of a large luxury brand: the exotic line is worth less than 0.5-1% of total revenue (LAV analysis of sector data).

Key implication: a €26,000 crocodile bag embeds around €500-700 of raw skin (2-3% of the price). A \$100,000 C. porosus Birkin embeds ~\$3,000-5,000 (3-5%). In both cases, the exotic raw material is a marginal item within the total cost. The value lies in brand equity, artisanal manufacturing and the distribution network - elements that a next-gen material preserves in full.

This estimate is confirmed by independent sector sources. According to the consultancy Bain&Company, exotic skins account for between 5 and 10% of leather goods sales at sector level, with profit margins higher than those of ordinary leather. This is an aggregate figure, referring to leather goods sales and not to total revenue, and is pulled upward by the few maisons most exposed to exotic skins; for a large diversified group, the exotic line remains a minimal fraction of overall revenue.

In luxury, economic value does not derive primarily from the raw material. In recent years, revenue growth has not been driven by an increase in the intrinsic value of materials, but by brands' ability to raise the price of iconic products thanks to brand strength, desirability and perceived exclusivity. According to the analysis *The State of Fashion: Luxury* by McKinsey&Company and *Business of Fashion* (2025), between 2019 and 2023 over 80% of the growth of the world personal luxury goods market came from price increases - with iconic products marked up by as much as 50-100% over four years - while volumes contributed only marginally. The sector's main competitive drivers today are brand value, perceived quality, creative heritage, customer service and innovation, not the cost of the raw material. It follows that replacing exotic leather with a next-gen material that maintains comparable aesthetic, tactile and performance standards does not entail a reduction in the product's economic value: the determining factor remains the brand's ability to preserve desirability, craftsmanship and positioning (source: McKinsey & *Business of Fashion*, *The State of Fashion: Luxury*, 2025). A graphic representation of this value hierarchy - the Value Creation Model - is shown in chapter 5 (Fig. 7).

This marginal weight is also confirmed by market scale. According to the Bain - Fondazione Altagamma Luxury Goods Worldwide Market Study, the world personal luxury goods market is worth around €364 billion (2024) and around €358 billion (2025). The entire value of EU reptile-leather imports - just over €867 million a year - is therefore equivalent to around 0.2% of the world personal luxury goods market: a negligible share at sector level, let alone for an individual brand (source: Bain & Company - Fondazione Altagamma, 2024-2025).

Public financial statements confirm very high margins. Prada Group, for example, posted a gross margin of 80.3% in 2025 (79.8% in 2024) on net revenue of €5.7 billion: a level of profitability that makes the incremental cost of an alternative raw material fully absorbable, with no impact on price positioning (source: Prada Group, 2025 Annual Report).

The clearest empirical evidence comes from Chanel: in 2018 the maison abandoned exotic skins, stating - in addition to the difficulty of guaranteeing ethically sound supply chains - that snake and crocodile products represented **a relatively small share of its business**. Chanel’s own president, Bruno Pavlovsky, publicly acknowledged that exotic skins, for the maison, “was not that important” (source: The Business of Fashion). The exit took place with no reported financial impact, and was followed by other leading players (including Burberry and Selfridges). This precedent confirms that discontinuing the exotic line is fully compatible with economic continuity even for a leading brand.

The finding is further confirmed at macroeconomic level. According to the study The Economics of Non-Human Animals (Batini ed., Springer 2026), fashion is worth around \$1,800 billion, of which so-called faunal fashion - based on animal bodies and by-products - is worth around \$201.5 billion, and the genuine-leather segment alone around \$130.1 billion (53.6% of the leather goods market, 2022). On this scale, the entire value of EU reptile-leather imports (around €867 million) represents a fraction on the order of 1% of the global genuine-leather segment: at aggregate level, as at individual-brand level, exotic leather is a very high-positioned niche market, not an economic pillar.

4.2 Hidden costs: CITES management

Margin estimates do not include CITES compliance costs, which are structurally absent for next-gen materials. The analytical quantification is based on institutional sources (AMTAN, USFWS, Regulation (EC) 338/97)..

Tab. 10 - Exotic line margins and CITES compliance costs

CITES cost item	Unit amount	Frequency
CITES Permit Cost (USA)	\$100 per shipment	Every US import shipment (source: AMTAN)
U.S. Fish and Wildlife Declaration (Form 3-177)	\$186 per shipment	Every US import - including finished products (source: AMTAN)
Courier Fee USFWS (120 miles + 4h staff)	\$150 per shipment	Every US import. AMTAN total per US shipment: \$436 (source: AMTAN)
EU/IT import permit (Reg. EC 338/97)	€70-150 per certificate	For every consignment imported into the EU; separate by species and country
EU re-export certificate (IT > non-EU markets)	€70-150 per certificate	For every non-EU destination market (USA, UK, JP, HK, CN, AE..)
Specialised CITES broker/forwarder	~\$400 per shipment	Every international shipment (source: Sunny Exotic Leather)
Dedicated compliance staff	€70,000-200,000/year	1-2 FTE (Full-Time Equivalent) with wildlife-trade law expertise. Structural cost item.
Seizure risk (probabilistic)	€10,000-50,000/year	~10-20% event probability × €50k-250k cost per event

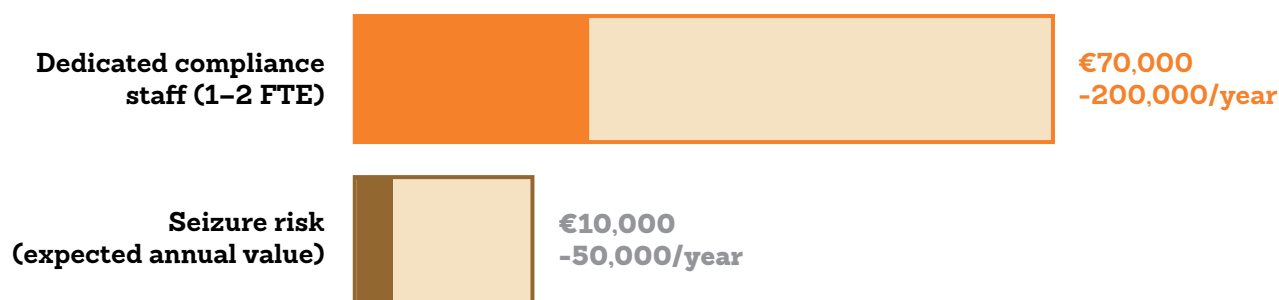


Fig. 4 - The components of the annual cost of an exotic-skins programme (sources: AMTAN and industry operators; see Tab. 10).

Costs per individual shipment (recurring, not scalable):

- Permits and certificates: € 70–150 per EU certificate; \$436 / US shipment (AMTAN)
- Specialised CITES broker and forwarder: \$400 / shipment

TOTAL EXOTIC PROGRAMME: € 100,000 – 400,000 / YEAR PER BRAND

Estimated annual CITES cost per brand (active exotic programme): €100,000-400,000/year - depending on the number of species managed, distribution markets and production structure. Zero cost for any next-gen material.

4.3 The weight of CITES costs on the revenue of the exotic line

Tab. 11 - Incidence of CITES costs on exotic-line revenue

Ratio	Estimated value	Reading
CITES costs/exotic-line revenue	~1-6%	Not a negligible weight on the specific line, but not unsustainable in absolute terms..
CITES costs/exotic-line operating margin (~60%)	~1.5-10%	For every €100 of margin from the exotic line, €1.5-10 goes to CITES compliance.
CITES costs/total group EBIT	<0.05%	Irrelevant at consolidated level: it has no impact on the group's accounts, even though it absorbs a cost and risk infrastructure disproportionate to its weight.
Exotic revenue/group total revenue	<0.5-1%	A very high-positioned niche, not an economic pillar.

The counter-intuitive conclusion: CITES compliance costs are only the most visible part of a broader structural burden. The real problem is that brands manage a costly compliance infrastructure, high reputational risk (documented by ~200 seizures at the US border in 6 years and numerous seizures in Italy in 2024-2025; see § 2.1) and growing regulatory exposure (the EU Digital Product Passport - Regulation (EU) 2024/1781; delegated act on textiles expected around 2027 and obligation not before 2028) to protect a line worth less than 0.5-1% of total revenue. The evidence available today indicates that next-gen materials can allow brands to maintain the same price positioning and margin levels, provided the elements that determine the product's perceived value remain unchanged (brand equity, craftsmanship, quality, scarcity and desirability). It is not an economic sacrifice: it is a substitution at equal commercial value.

From “cost saving” to “capital allocation”. Traditionally, the issue of exotic skins has been approached as a matter of sustainability or animal welfare. From a managerial perspective it can be read differently: as a capital-allocation decision. Every exotic-skins programme absorbs managerial resources, specialised staff, compliance systems, traceability, document management, audits, certifications, relations with CITES authorities and reputational-risk management.

The strategic question is therefore not how much exotic skins cost, but whether these resources generate a higher return than alternatives such as materials research, product innovation, supply-chain digitalisation or the development of next-gen platforms.

From this perspective, the transition is not a cost reduction but a reallocation of capital towards higher-value-added activities. In boardroom terms, it is a question of return on capital: every euro and every hour of managerial capital absorbed by managing exotic skins (compliance, CITES, risk management) is diverted from uses with a higher ROI and Return on Capital Employed (ROCE). The transition is therefore also a decision about resource allocation and capital efficiency.

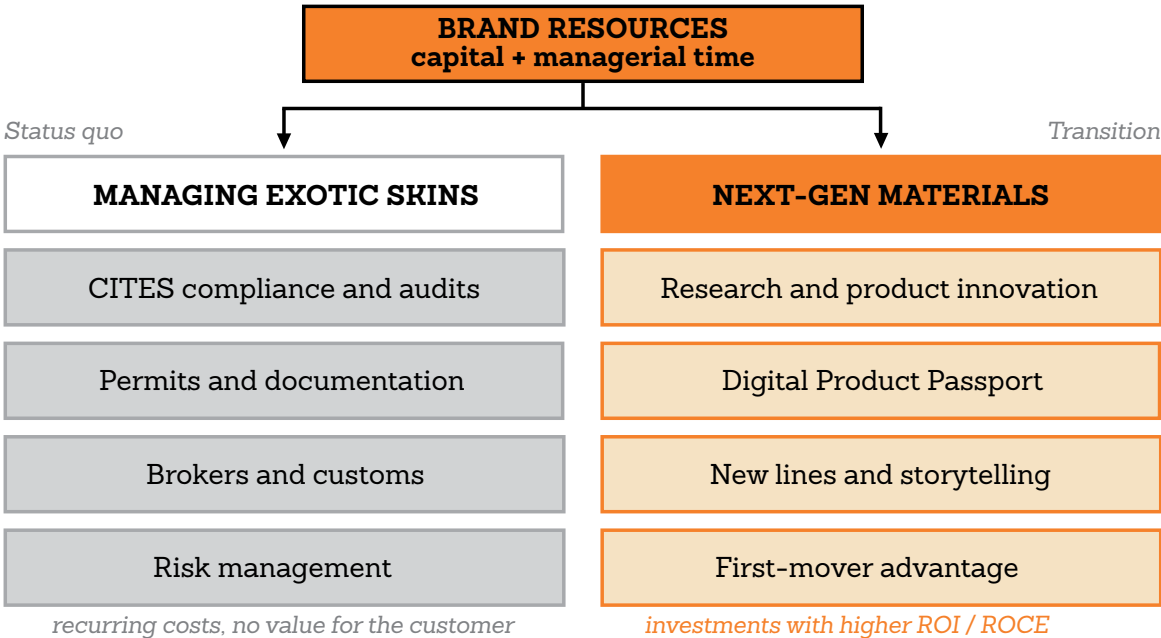


Fig. 5 - The opportunity cost of the status quo: the same resources can either fund compliance or finance innovation (LAV analysis).

4.4 The fur-free precedent: the same transition has already happened

The luxury sector has, in recent times, already carried out an entirely analogous material transition: the abandonment of fur. It is the strongest empirical precedent available, because it demonstrates in practice what this report argues on economic grounds. The wave began in 2016 with Giorgio Armani and gained momentum with Gucci in 2017; within a few years, almost all major groups had adopted a fur-free policy. An analysis by The Business of Fashion of 25 major maisons found, as early as 2022, that only 7 had not yet announced a ban. Several of these policies were co-developed with animal-protection organisations. In Italy, LAV - a member of the Fur Free Alliance and creator of the Animal Free Fashion rating - was a key stakeholder in the fur-free choices of Armani, Gucci, Prada Group and YNAP/LuxExperience B.V., often in collaboration with Humane World for Animals (formerly HSUS): in Gucci’s 2017 fur-free announcement, then-CEO Marco Bizzarri explicitly acknowledged the contribution of HSUS and LAV. LAV also played a leading role in the fur-free evolution of the Camera Nazionale della Moda Italiana.

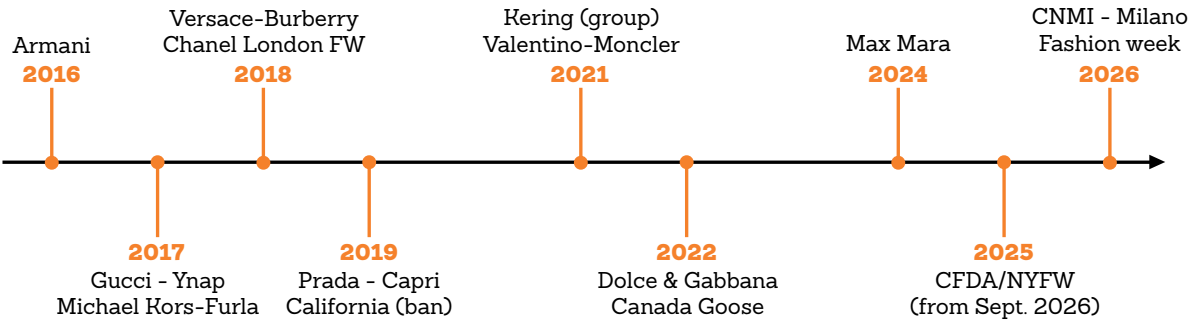


Fig. 6 - The fur-free transition in luxury, 2016-2026 (sources: The Business of Fashion; LAV).

Tab. 12 - Key timeline of the fur-free transition in luxury (2016-2022)

Year	Brand/institution	Shift to fur-free
2016	Giorgio Armani	First major brand to give up fur
2017	Gucci (Kering), YNAP Group, Michael Kors, Jimmy Choo, Furla	Start of the fur-free wave in luxury
2018	Versace, Burberry, Chanel, Coach, DKNY, Diane von Furstenberg	Wave of further commitments
2018	London Fashion Week	First of the “big four” to go fur-free on the runway
2019	Prada Group, Capri Holdings (Michael Kors, Jimmy Choo, Versace)	Further commitments
2019	California	First US State to ban fur sales
2021	Kering (all brands), Valentino, Canada Goose, Moncler	Group-wide commitments (Moncler operational by A/W 2023)
2022	Dolce & Gabbana; Kering fur-free operational	Few exceptions remain among major brands (BoF: 7 of 25)
2022	Canada Goose	Completes fur phase-out
2024	Max Mara Fashion Group	Fur-free across all group brands (FFA campaign with LAV and HSI)
2025	CFDA - New York Fashion Week	Fur banned from official runway shows from the September 2026 collections
2026	Camera Nazionale della Moda Italiana	Publication of “Fur-Free” Guidelines to discourage its presentation on the runway by member maisons

No economic damage - quite the opposite. Gucci, the brand symbolising the wave, announced its farewell to fur in October 2017 and in the immediately following years recorded the strongest growth in its history: revenue rose from around €6.2 billion (2017) to €9.6 billion (2019), more than doubling sales between 2016 and 2019, with a 41% operating margin (official Kering data); 2017 was the most profitable year in the group’s history. There is no public evidence of negative economic impacts directly attributable to the decision to adopt fur-free policies, while desirability and pricing power remained intact. On the market, the fur sector is contracting sharply: in the European Union, animals killed for fur fell from around 45 million (2015) to 6.3 million (2024) and the value of pelt sales fell by 92% over the decade (Griffin Carpenter, A full-cost account of the EU fur industry, 2025; supported by the Fur Free Alliance, Eurogroup for Animals and Humane World for Animals). And it is not an isolated case: Armani, Prada, Burberry and Moncler have maintained or increased their positioning and revenue after going fur-free, and in 2022 Kering extended the choice to all its maisons (Gucci, Saint Laurent, Bottega Veneta, Balenciaga, Alexander McQueen) with no economic setbacks.

What fur-free teaches us about exotic skins.

The precedent demonstrates four things that are directly transferable:

- (i) luxury can abandon an entire category of traditional material, on ethical grounds, without losing value.
- (ii) desirability, price and margins are preserved - in several cases, Gucci among the best known, they actually grew.
- (iii) the choice becomes a positive narrative and a mark of modern luxury, not a renunciation.
- (iv) regulation follows the market (farming and sales bans), so that those who move late face both reputational and regulatory catch-up.

Exotic skins are today on the same trajectory, a few years behind: the question is not whether the transition will happen, but which brand will choose to lead it.

5. Next-gen alternatives - analysis and transition proposal

This section presents the main new-generation materials available to replace exotic skins in luxury leather goods, with specific reference to their suitability for the most common product types (structured bags, accessories, belts).



A vibrant close-up of an *Opuntia* cactus with fruits in Pollença, Spain. Photo: Raymond Petrik, Pexels License (cropped).

5.1 The argumentative framework

The conceptual framework: “circumfauna”. The study *The Economics of Non-Human Animals* (Batini ed., 2026) frames this transition with the concept of “circumfauna”, i.e. the total elimination of animal inputs from production processes. The authors point out that the adoption of circumfaunal materials (free of any input of animal origin) does not require an ethical commitment, but is driven by risk reduction, cost efficiency and market opportunity - eliminating the initial supply-chain stages, which are the riskiest, most harmful and most costly. This is the same logic as this document: replacing exotic skins is an operation of competitive de-risking, not an economic sacrifice.

The same study documents growing adoption of next-gen materials beyond Hermès and Kering: Gan-ni (Reishi by MycoWorks, Vegea from grape marc, Ohoskin from orange and cactus), Stella McCartney (Mirum and the Hydefy bag made from mycelium and sugar cane) and AnotherTomorrow, the first brand to launch ready-to-wear garments in Mirum. Giorgio Armani has also publicly stated that the alternatives available today make cruel practices towards animals unnecessary.

- **The cost of substitution is financially neutral or positive.** Raw exotic leather is worth less than 3-8% of the final selling price. Next-gen materials at luxury scale have production costs of €25-60/m², lower than the cost of Grade 1 crocodile leather. They also eliminate CITES, permits, brokers and customs risk.
- **The Hermès–MycoWorks precedent (2021) shows concrete sector interest in next-gen materials.** Hermès - the absolute benchmark of luxury leather goods - commercially launched the Victoria bag in Sylvania (MycoWorks’ Fine Mycelium), and Patrick Thomas, former Hermès CEO, joined the company’s board. It should honestly be noted that the commercial follow-through of that launch was never made public, that Hermès does not appear to have repeated the operation with

other products in this material, and that during 2025 MycoWorks closed its production facilities (South Carolina and Emeryville, CA), shifting its business model from direct mycelium cultivation to processing only mycelium purchased from third parties. The Hermès case therefore remains a signal of luxury-sector interest in these materials, rather than proof of an already-completed transition at industrial scale.

- **Kering has already made structured public commitments.** At the Capital Markets Day in Florence on 16 April 2026, Kering - the holding company of Gucci, Saint Laurent, Balenciaga, Bottega Veneta - announced in its “ReconKering” plan a reduction of **30% in leather dependency by 2028** and a target of **40% alternative materials by 2035**. The window for a first-mover position is closing.
- **Il DNA di innovazione del lusso rende la transizione coerente con il brand.** Luxury’s innovation DNA makes the transition consistent with the brand. Prada Group developed Re-Nylon (2019) and signed a partnership with NASA/Axiom Space (2024). Adopting next-gen leather is a natural extension of this positioning.

An already established precedent: the abandonment of fur. The entire luxury supply chain has already discontinued a category of animal material - fur - with no negative economic consequences: Gucci has been fur-free since 2017, the entire Kering Group since the autumn 2022 collections, and Prada Group since 2020. All the brands analysed here are, moreover, strongly committed, on their own or through international networks, to contributing to the achievement of the UN 2030 Agenda Sustainable Development Goals, including biodiversity protection. Replacing exotic skins is the natural extension of a trajectory the sector has already followed.

Value Creation model of an iconic luxury brand

The hierarchy of perceived value: raw material is the last link in the chain.

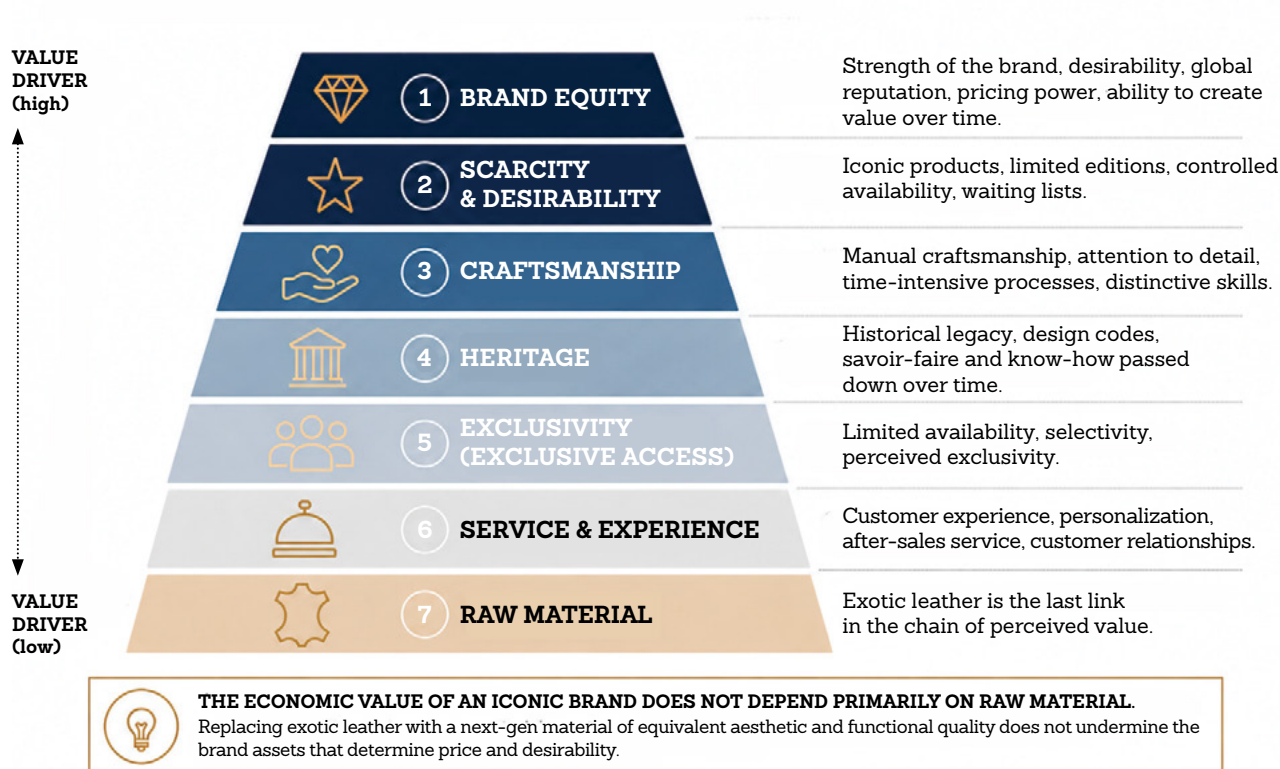


Fig. 7 - Value Creation Model of an iconic luxury bag: the raw material is the last link in the chain of perceived value (LAV analysis)..

5.2 Available next-gen materials

Reference source. The data on the availability, technology categories and adoption of next-gen materials referenced in this chapter are consistent with the State of the Industry reports of the Material Innovation Initiative (MII), the sector's leading think tank, which classifies next-gen materials into six input categories (plant-based, mycelium, microbial, cell-cultured, recycled, blended) and tracks industrial investment and collaborations. Exotic skins are one of the animal-derived material categories explicitly considered by MII.

Note on the state of the sector (July 2026). The next-gen materials sector is evolving rapidly and is subject to significant industrial volatility: during 2025, several companies cited in this chapter underwent major restructuring, production facility closures, or business model changes (details in the respective profiles below). This does not undermine the technological direction described in this chapter, but it does call for caution in presenting individual materials as solutions that are already fully mature at industrial scale. According to industry operators, the most advanced next-gen materials are increasingly approaching the performance of animal leather, but do not yet constitute, in all cases, a direct and generalized substitute - particularly in tear strength, tensile strength, and finish adhesion. The data in this chapter should therefore be read as a snapshot of an evolving sector, to be updated periodically

5.2.1 Reishi™ - Fine Mycelium (MycoWorks, USA)

Producer. MycoWorks (Emeryville, CA) - in 2023 had opened a 136,000 sq ft facility in South Carolina; during 2025 it closed both the South Carolina plant and the Emeryville headquarters/pilot plant, shifting its business model from direct mycelium cultivation to processing only (via its proprietary Rei-Tan technology) mycelium sourced from third-party producers. Historical funding: >\$187M. Patrick Thomas (former Hermès CEO) on the board.

Suitability vs crocodile/lizard. Potentially suitable for crocodile: smooth, uniform surface, perfect rectangles, +40–70% yield vs. animal hide according to producer data. Scale embossing in post-production. Used by Hermès in a limited commercial launch (Victoria Sylvania, 2021), not repeated since.

Performance. Exceeds luxury benchmarks: 220 lbs × 20,000 cycles (Ligne Roset test). 6 lbs CO₂eq/11 sq ft vs 27.3 kg/m² animal leather. 100% bio-based, biodegradable.

Cost. estimated price per square metre 2 to 5 times that of calfskin, still lower than the cost of Grade 1 crocodile leather. Falling by 30–40% a year

5.2.2 INNOVERA™ (Modern Meadow, USA)

Suitability vs crocodile / lizard. MAXIMUM: embossing with any texture (crocodile, lizard) directly in production, with the same precision as the best industrial processes. Compatible with existing Italian tannery machinery: zero retooling.

Key advantage. The visual and tactile design (Birkin, Galleria, Peekaboo) can be kept identical to the original. Impact on design heritage = zero. Impact on CITES = zero.

Presented at Lineapelle Milan - the leading B2B trade fair for the Italian leather goods industry.

Note on downsizing. According to information gathered from industry operators, Modern Meadow is reportedly shifting a growing share of its business toward the automotive sector (collaborations with Mercedes-Benz and other automakers) relative to luxury leather goods. The company nonetheless continues to present INNOVERA at multi-industry trade fairs such as Lineapelle Milan 2026, with a booth that also includes accessories and leather goods: the actual current commercial focus cannot be verified from independent public sources at the time of writing, and should be confirmed directly with the company before any operational assessment.

5.2.3 Desserto® - Cactus leather (Mexico)

Suitability. Excellent for lizard skin and thin accessories (0.6-1.2 mm). CO₂: 1.39 kg/m² (vs 27.3 kg/m² for animal leather, a carbon footprint around 20 times lower). USDA Certified Bio-based 65%. The CO₂ figure is an early-stage LCA by the producer (ISO 14040/14044): to be confirmed with an independent LCA (see § 5.4).

Active luxury partnerships. Kering (luxury pilot, March 2025 - including Gucci, Saint Laurent, Balenciaga); Balenciaga; BMW; Mercedes-Benz. Price: \$6.50-10/sq ft

Note on substances detected. Tests conducted by the FILK Freiberg Institute detected traces of five restricted substances in Desserto samples (including toluene, free isocyanate, and the pesticide folpet); the manufacturer attributed part of the findings to possible cross-contamination during industrial-scale production, without providing public data on the quantities detected. This should be factored into the overall evaluation of the material.

5.2.4 Lab-grown collagen leather (2027-2030 horizon)

Technology. Collagen structurally identical to the animal version, produced from cells without animal exploitation. BS 2780:1983 and ISO 17131:2020 standards. First luxury bag (T-Rex leather, Lab-Grown Leather Ltd + VML) launched in 2025.

Strategic opportunity. A co-development agreement started now - while the technology is still maturing - positions the brand as a luxury first mover in the lab-grown leather category once industrial scale is reached (2027-2030).

5.2.5 TômTex (mycelium + chitin) - the most targeted candidate for the reptile effect

Technology. A bio-based material developed by TômTex (Brooklyn, USA) from chitosan - derived from mycelium and crustacean shell waste - 100% bio-based, plastic-free and tanning-free. Its distinctive feature is that the material is cast in a mould and can be embossed, textured or 3D-printed to reproduce exotic-skin textures - crocodile and snake in particular - directly in production, with no subsequent engraving.

Suitability vs exotic skins. It is the next-gen alternative most explicitly oriented towards replacing exotic skins: reptile textures are a native output of the process, not a workaround. The material comes in two lines (Series WS from shells, Series M from mycelium). CFDA recognitions and LVMH Innovation Award finalist.

Adoption and scale. Runway collaborations with Peter Do, Alexander Wang, Ralph Lauren and Parley/Sky High Farm Universe (also featured in MII's Next-Gen Materials Lookbook). Continuous roll-to-roll production underway at the Brooklyn plant; ~\$4.15 million raised. Stage: moving from initial commercialisation to scale-up.

5.3 Comparative table - suitability as a substitute

Tab. 13 - Suitability of next-gen materials as substitutes for exotic skins

Material	Vs crocodile	Vs lizard/python	Ready today	Cost vs exotic	Luxury validation
Reishi™ (MycoWorks)	★★★★☆ Excellent	★★★☆☆ Partial	✓ Yes	Lower than croc	Hermès Victoria Sylvania (2021)
INNOVERA™ (Modern Meadow)	★★★★★ Excellent	★★★★★ Excellent	✓ Yes	Compet. vs calfskin	Luxury + sport (confidential)
Desserto® (cactus)	★★☆☆☆ Limited	★★★★★ Good	✓ Yes	\$6.50-10/ft ²	Kering (2025); Balenciaga
Lab-grown collagen	★★★★★ Perfect	★★★★★ Perfect	⚠ 2027-2030	Pre-scale	Lab-Grown Leather Ltd (2025)

5.4 Performance data and technological readiness: the independent test

For a Leather Goods manager, the decisive question is not whether a material is “sustainable”, but whether it passes the technical tests every leather must pass: abrasion, tear strength, repeated flexing, colour fastness, ageing, finish adhesion. On this ground, top-tier next-gen materials already have independent third-party data. The tanning industry’s reference laboratory - the Centre Technique du Cuir (CTC Groupe, Lyon) - has tested both Reishi (MycoWorks) and, through Maison Maes, Desserto in a direct comparison with calfskin.

Tab. 14 - Reishi™ performance data from independent third-party testing (CTC Groupe, Lyon)

Parameter (test method)	Reishi™ result (MycoWorks)	Test/source
Flex - Bally Flex	up to 20,000 cycles	CTC Groupe (Feb. 2025)
Abrasion - Martindale	up to 25,600 cycles	CTC Groupe
Colour fastness	passed at 200 cycles	CTC Groupe
Ageing (50°C, 90% RH)	passed	CTC Groupe
Finish adhesion	0.5 N/mm	CTC Groupe
Tensile strength (ISO 3376)	14–18 MPa	MycoWorks (2025, mycelium-only)
Tanning and processing	chrome-free; dyeable, embossable, sewable	suitable for reptile-type embossing
Industrialisation	commercial-scale plant (South Carolina); supply to tanneries	MycoWorks (2025)

Desserto also has independent verification. Maison Maes had the Centre Technique du Cuir (Lyon) carry out comparative mechanical tests - tensile strength, abrasion, repeated flexing - between the Desserto used for its bags and a calfskin intended for the same high-end leather-goods use. On the environmental side, Desserto’s LCA (ISO 14040/14044 guidelines) has also been reviewed and analysed by Collective Fashion Justice; however, it remains an early-stage LCA by the producer and needs independent confirmation.

Tab. 15 - Next-gen materials: availability, scalability and suitability to replace exotic skins

Material (producer)	Availability	Scalability	Luxury validation (examples)	Suitability to replace exotic skins
Reishi™ (MycoWorks)	Commercial (scale plant, USA)	Growing	Hermès (Victoria Sylvia, 2021); board includes P. Thomas	Very high - mycelium developed for high-end leather goods; reptile-type embossable
INNOVERA® (Modern Meadow)	Commercial / scaling	High	Industrial partnerships; compatible with tannery machinery	High - crocodile/lizard embossing, zero CITES impact
Hydefy™ (Fynder Group / Nature’s Fynd)	Initial commercialisation	Growing	Stella McCartney (Ryder bag, 2025)	High - luxury-tier mycelium; first bag applications
TômTex (chitosan/mycelium)	Initial commercialisation / scale-up	Growing (roll-to-roll)	Peter Do, Alexander Wang, Ralph Lauren, Parley	Very high - native crocodile/snake embossing; the most targeted candidate for exotic skins
Desserto® (cactus)	Commercial (since 2019)	High	Kering pilot (2025); 800 brands worldwide	High for lizard and thin accessories
Mirum® (Natural Fiber Welding)	Commercial	High (growing)	Stella McCartney, Allbirds	High - 100% bio-based, plastic-free; premium accessories
Vegea® / GrapeSkin® (Vegea)	Commercial	High	Calvin Klein, Bentley, H&M	Medium-high - established technology, fashion and luxury applications
Ohoskin® (Ohoskin, Italia)	Commercial	Medium	Several European brands	Medium-high - leather goods and accessories
Cultivated (lab-grown) collagen	Pre-commercial (R&D)	Limited	Pilot projects and partnerships	Very high in the medium-to-long term - replicates leather without farming

Summary overview of the main animal-free material candidates for high-end leather goods (LAV analysis of public producer and trade-press sources). “Suitability” indicates the potential for substitution at equal end use.

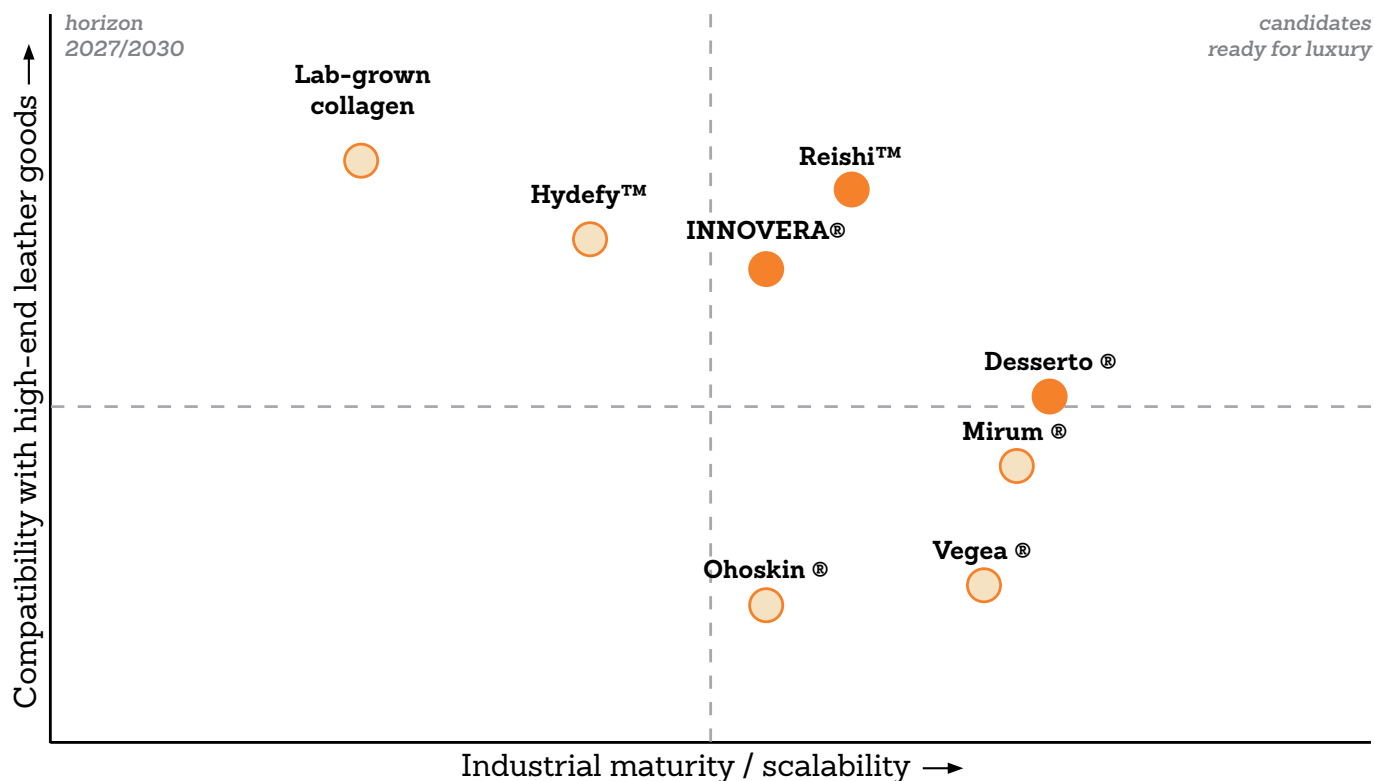


Fig. 8 - Positioning of next-gen materials: compatibility with high-end leather goods and industrial maturity (LAV analysis; see Tab. 15).

Methodological note: producer data vs independent tests. The most solid performance data come from independent third-party laboratories (CTC Groupe / Centre Technique du Cuir), not from producers alone. Environmental LCAs, on the other hand, are still mostly early-stage and provided by producers (Desserto per ISO 14040/14044; MycoWorks for Reishi): they indicate very large CO₂ reductions compared with animal leather - independently estimated at 73-110 kg CO₂ eq/m² from the cattle supply chain to the finished product - but require independent verification and methodological harmonisation.

Note on the stability of suppliers cited in the table. Natural Fiber Welding (maker of Mirum®) announced in September 2025 that it was ceasing operations, then resumed operating in January 2026 thanks to new investors; the company nonetheless continued to go through rounds of restructuring and staff reductions in the following months. Other suppliers cited in this chapter (including Hydefy) have also been the subject of recent reports of operational difficulties not yet fully documented by verifiable public sources at the time of writing. Readers are advised to verify the current status of each supplier before entering into commercial relationships.

5.5 Why get in: the competitive advantages of the transition

This document mainly shows why to exit exotic skins; it is, however, equally relevant why to get into next-gen materials - that is, the value the transition creates, in addition to the risks it removes. The substitution opens up concrete competitive levers: storytelling and product innovation; greater appeal to Gen Z and younger consumers; better positioning with ESG investors; a simpler, more resilient supply chain; early alignment with the Digital Product Passport and European regulation; and a verifiable contribution to biodiversity protection, as well as no longer being an active party to the exploitation of animals. This is therefore not just about reducing a risk, but about creating value and building a first-mover advantage that is difficult for late movers to replicate.

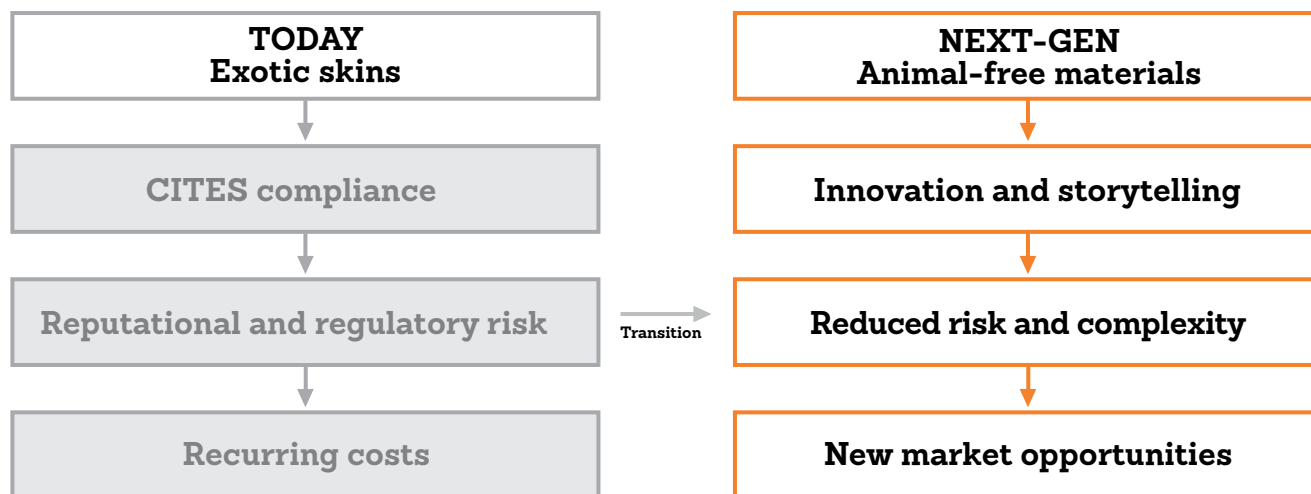


Fig. 9 - From the status quo to the transition: what the shift to next-gen materials removes and what it enables (LAV analysis).

Tab. 16 - SWOT analysis of the transition to next-gen materials

Dimension	Key elements
Strengths	No CITES obligations; simpler, more traceable, ethical and environmentally sustainable supply chain; scalable supply; alignment with DPP/EUDR; positive brand narrative
Weaknesses	Independent performance data still being consolidated; perception of a “new material” to be managed; need for internal testing and validation
Opportunities	Storytelling and innovation; Gen Z appeal; interest from ESG investors; first-mover advantage; supply resilience
Threats	Inertia of the status quo; scepticism from traditionalist customers; competitors communicating the transition first

Tab. 17 - Risk matrix: staying with exotic skins

Risk (staying with exotic skins)	Probability	Impact	Mitigation
Customs seizures/falsified CITES permits	Medium	High	Switching to materials with no CITES obligations
New regulation (DPP, import/sale bans)	High	High	Getting ahead with traceable, compliant materials
Reputational damage (investigations, campaigns)	Medium-high	High	Planned exit from exotic skins
Disruption of exotic supply (CITES quotas, species)	Medium	Medium	Diversifying with scalable next-gen materials
Challenges to “ethical/byproduct” claims	Medium	Medium	Removing exotic skins and communicating transparently

5.6 The five economic reasons for the transition

The main economic evidence supporting the transition from exotic skins to next-generation materials.

1. MARGINAL ECONOMIC WEIGHT

Exotic-leather lines have only a marginal impact on the overall revenue of major luxury groups.

Why it matters - *The substitution has a limited economic impact.*

2. VALUE COMES FROM THE BRAND

Brand equity, heritage, craftsmanship, scarcity and pricing power determine perceived value more than the raw material.

Why it matters - *Premium positioning can be maintained.*

3. LOWER COSTS AND RISKS

The transition removes most of the CITES complexity, compliance burden and reputational risk.

Why it matters - *A simpler, more resilient supply chain.*

4. CAPITAL REALLOCATION

Financial and managerial resources can be redirected towards innovation, R&D and next-gen materials.

Why it matters - *Better capital allocation.*

5. AN ALREADY PROVEN PRECEDENT

The fur-free experience shows that the luxury sector can change materials without compromising brand value.

Why it matters - *A credible, strategically sustainable transition*

The transition from exotic skins to next-generation materials is not just an ethical or environmental choice: it can be an economically rational decision, capable of preserving the value created by the brand while reducing operational complexity, risk and compliance costs.

6. Roadmap for the next-gen transition at equal value



Elaphe carinata, Soochow University, Taiwan. Image: Allentchang, CC BY-SA 3.0.

Roadmap recommended for luxury brands using skins from exotic species, set out by time horizon:

6.1 Short term - by the first half of 2027

Step 1: transparency on the species used in all exotic-leather products.

Every genuine exotic-leather product must explicitly declare the species used to the consumer (according to CITES nomenclature) in the description visible on the e-shop and on the product label. The current practice - whereby brands generically declare “crocodile” without specifying *A. mississippiensis* or *C. niloticus* - is inadequate and inconsistent with the forthcoming EU Digital Product Passport provisions. The extreme case is documented by Prada’s own official Brique product page: the product is titled and described as a “crocodile leather bag”, but under “Materials and care” the declared material is “American Alligator” — a species that does not belong to the crocodile family. The commercial name and the actual species do not even match within the same product page.

Step 2: launch of a pilot with next-gen material on at least one iconic line.

Hermès experimented with mycelium in 2021 with the Victoria Sylvania, a limited commercial launch not repeated since. A pilot using Reishi, INNOVERA, or Desserto on an iconic bag (e.g. Hermès’ Birkin, Fendi’s Peekaboo, Prada’s Galleria) would not require design changes or industrial retooling, though the performance of the chosen material against the technical parameters required by high-end leather goods would still need to be verified.

6.2 Medium term - by 2028

Step 3: full phase-out of exotic skins from wild supply chains.

The economic cost is neutral: raw leather is worth less than 3-8% of the selling price. Substitute materials are available today at industrial scale. The market trend is clearly moving away from wild supply chains, even among those still using exotic skins.

Step 4: public communication of a materials-transition roadmap.

Kering has already communicated public commitments at CMD 2026 (~30% leather dependency by 2028). Hermès already has a mycelium product in its catalogue. Other brands' silence generates growing reputational risk, especially in view of the EU Digital Product Passport, which will make raw-material traceability mandatory.

Step 5: inclusion of exotic skins in annual ESG reporting.

Purchase data by species, country of origin and production method (wild/farm/captive) must be made public in annual ESG reporting. The current level of transparency is inadequate.

6.3 Long term - by 2030

Step 6: full phase-out of all exotic skins (including farmed supply chains).

As lab-grown collagen leather advances (2027-2030 horizon), a structurally identical substitute for leather will become available. Brands that start co-development now will be able to become first movers with exclusive supply.

Step 7: co-development agreement with lab-grown leather producers.

An agreement started now with Lab-Grown Leather Ltd or equivalents would allow the brand to position itself as a luxury first mover in the category, with possible supply exclusivity once industrial scale is reached.

7. Conclusions

The evidence presented in this document points to a clear picture: the use of exotic skins in luxury products is not an economic pillar, but a high-risk niche with marginal returns relative to the total portfolio. The transition to next-gen materials is not a financial sacrifice - it is an operation at equal commercial value that removes a disproportionate risk overhead.

An outdated cultural legacy. The use of exotic skins in luxury is a cultural legacy, not a necessity: no brand needs skins from “exotic” animals to position itself at the top end of the market. It is an archaic view of luxury, one that ignores technological, cultural, social and environmental progress, and that disregards the need to protect animals as sentient beings. Contemporary luxury is increasingly defined by materials innovation and responsibility, not by the exploitation of individuals of wild species.

The economic picture

Raw exotic leather is worth less than 3-8% of the final selling price. CITES compliance costs amount to €100,000-400,000/year per brand. The exotic line of a large luxury brand, however highly profitable, is typically worth less than 0.5-1% of total revenue. Next-gen materials can make it possible to maintain the same price positioning and margin levels - at equal perceived value - while eliminating all CITES costs.

The risk picture

Between 2016 and 2021 the USFWS seized almost 200 shipments of reptile-leather goods at the US border, traceable among others to Hermès, Louis Vuitton and Gucci; similar seizures are also documented in Italy in 2024-2025 (see § 2.1). Reptile skins accounted for 10% of all CITES seizures in the EU in 2022. The EU Digital Product Passport - established by Regulation (EU) 2024/1781 (ESPR); delegated act on textiles expected around 2027, with the obligation not before 2028 - will progressively make raw-material traceability mandatory and publicly verifiable. Brands that have not started the transition beforehand will be exposed to significant reputational and regulatory risks.

This is compounded by broader regulatory exposure. The EU Deforestation Regulation (EUDR) already requires geolocated proof of no link to deforestation for bovine leather placed on the EU market, and animal-derived materials are structurally more exposed to sudden bans, trade barriers and bio-security crises than the alternatives. Since around 70% of the fashion sector’s emissions come from upstream activities, starting with raw-material production (McKinsey & Global Fashion Agenda, Fashion on Climate, 2020), exotic raw material concentrates a disproportionate share of regulatory and reputational risk relative to its marginal contribution to revenue.

Traceability remains incomplete. Brands themselves acknowledge this: Prada Group, for example, publicly states a goal of tracing 95% of “precious skins” leather back to slaughterhouses and killing facilities by 2028, implicitly admitting that such traceability is not yet guaranteed today (source: Prada Group, 2025 Sustainability Report).

The competitive picture

Hermès experimented with mycelium in 2021 (Victoria Sylvania), a commercial launch not repeated since. Kering announced explicit commitments at CMD 2026: -30% leather dependency by 2028, 40% alternative materials by 2035. Brands that have not communicated a credible transition agenda by 2027 will find themselves in the position of follower, not leader - in a market where materials-innovation positioning has become a primary competitive asset.

LAV’s position

LAV is not asking brands to give up revenue or margins. It is asking them to replace - at equal commercial value, but with added value in terms of ethics (respect for animals as sentient beings) and supply-chain sustainability (reducing the externalities typical of animal production: impact on climate, environment and biodiversity, zoonotic risk) - a category of raw materials that generates risks disproportionate to its economic contribution, and to do so in line with the strategic trajectory the luxury sector is already following.

LAV also encourages luxury brands to invest concretely in industrial research and experimental development of new-generation sustainable materials to replace materials of animal origin, and to make this commitment public with verifiable objectives and timelines - following the model already set by Kering with the “ReconKering” plan announced at Capital Markets Day 2026.

Such a commitment would also be consistent with what these same companies publicly declare regarding their contribution to the United Nations Sustainable Development Goals (SDGs), given that animal-based production generates negative externalities - on climate, land and water use, biodiversity, and zoonotic risk - that are difficult to reconcile with those goals.

The burden of proof is shifting. The question the sector should be asking is no longer whether next-gen materials can replace exotic skins, but what competitive advantage there is in continuing to use them. If value for the customer stays the same while operational complexity, regulatory risk and reputational vulnerability decrease, it is no longer those proposing innovation who must justify the change, but those defending the status quo.

Tab. 18 - Summary overview: staying with exotic skins or switching to next-gen materials

Driver	Staying with exotic skins	Switching to next-gen materials
Retail price	unchanged	unchanged
Brand equity	unchanged	unchanged
Margin	unchanged	unchanged
CITES obligations	yes	no
Administrative compliance	high	low or none
Seizure risk	possible	absent
Digital Product Passport	complex traceability	simple traceability
Supply scalability	limited	high
Reputational exposure	growing	reduced
Brand narrative	defensive	positive

The question is no longer whether the luxury sector is able to replace exotic skins. The evidence gathered shows that the technological, industrial and economic tools to do so are now available. The decision therefore becomes a matter of corporate strategy and capital allocation, not a technical or production constraint.

WHY THE TRANSITION IS RATIONAL



Fig. 10 - The report's logical chain in summary (LAV analysis).

8. Appendix - sources and key references

Sector and CITES data

- **Bain & Company and Fondazione Altagamma** - Luxury Goods Worldwide Market Study (2024-2025). World personal luxury goods market ~€364bn (2024) and ~€358bn (2025); sector profitability contracting (EBIT ~15-16% in 2025). bain.com/insights
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- **Business of Fashion** - “Why Luxury Brands Can’t Shake the Controversy Around Exotic Skins” (2024). ~200 shipments seized at the US border 2016-2021 (Hermès, LV, Gucci). businessoffashion.com
- **CITES Trade Database** - trade.cites.org (UNEP-WCMC for the CITES Secretariat).
- **Cohen v. Gucci America / Kering Americas**, class action (Consumer Fraud and Deceptive Business Practices Act), 2024; CBS News investigation, March 2024 (motion to dismiss denied 21/10/2024).
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- **Collective Fashion Justice and trade press (Sourcing Journal, WWD, The Business of Fashion, Fashion-Network)** - list and dates of exotic-skins phase-outs in luxury: Chanel (2018), Victoria Beckham (2019), Burberry (2022), Marc Jacobs (2024), as well as Mulberry, Jil Sander, Paul Smith, Vivienne Westwood, HUGO BOSS, PVH (Calvin Klein, Tommy Hilfiger); retailers Selfridges, Nordstrom, MyTheresa, Farfetch. collectivefashionjustice.org
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- **DataIntel - Breeding Crocodile Market Report (March 2026)**. Global crocodilian skin trade volume: 1.2-1.5 million skins/year. Luxury exotic leather goods market: fastest-growing subcategory. dataintel.com
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- **Griffin Carpenter - A full-cost account of the EU fur industry (2025)** - economic decline of the EU fur sector; supported by the Fur Free Alliance, Eurogroup for Animals. griffincarpenter.org; furfreealliance.com
- **IACTS 2024 - International Alligator and Crocodile Trade Study** (John Caldwell, UNEP-WCMC for the Louisiana Alligator Advisory Council). Global analysis of the crocodilian skin trade 2020-2022. unesp-wcmc.org (UNEP-WCMC, for the CITES Secretariat)
- **IUCN CSG - World trade in crocodilian skins 2021-2023 (April 2025)**. iucncsg.org
- **Kering - 2019 Full-year Results**. Gucci revenue €9,628.4 million (2019), more than doubled between 2016 and 2019; recurring operating margin 41.0%. kering.com/finance
- **LAV - Lega Anti Vivisezione (Animal Free Fashion Area) and Humane World for Animals (formerly HSUS)** - key stakeholders for luxury fur-free policies: Armani (2016), YNAP Group (2017), Gucci (2017), Prada Group, Versace, Valentino, Moncler and LuxExperience B.V.; Fur Free Alliance members. lav.it/animal-free-fashion; humaneworld.org
- **LAV - Lega Anti Vivisezione ETS, Fashion Report no. 2 - Pelli esotiche, Analisi della filiera di produzione e criticità dei principali standard di certificazione (2022)**, S. Pavesi. lav.it/moda-senza-animale
- **LAV - Lega Anti Vivisezione ETS, Zoomafia Reports (2024-2026)**, C. Troiano. Documented cases of seizures and document fraud involving exotic leather goods in Italy (Guardia di Finanza; Agenzia delle Dogane e Monopoli; operation THUNDER 2025; EcoAtl@nte platform).
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- **LDWF - Louisiana Department of Wildlife and Fisheries, Alligator Management Program Annual Reports**. Farm gate price *A. mississippiensis*: \$6.50/cm (2020-21). wlf.louisiana.gov/resources/category/alligator/annual-reports
- **LVMH - Standard for the responsible sourcing of crocodilian skins (2019); Kering - Animal Welfare Standards**. Group standards on sourcing and welfare for exotic skins (crocodilians and reptiles). lvmh.com / kering.com
- **Material Innovation Initiative (MII) - State of the Industry Report: Next-Gen Materials**. Main source on next-gen materials: definitions, six input categories, data on investment, scalability and industrial collabora-

tions (Reishi/MycoWorks, Mirum/NFW, Vegea, Modern Meadow and others). materialinnovation.org/reports

- **Material Innovation Initiative - Next-Gen Materials Lookbook (June 2024)** - overview of next-gen products and collaborations (Reishi/MycoWorks, Mirum/NFW, Desserto, TômTex and others). materialinnovation.org/reports
- **McKinsey & Company and Business of Fashion - The State of Fashion: Luxury (2025). Between 2019 and 2023, over 80% of personal luxury goods growth came from price increases (iconic products +50-100%); value depends on brand equity, pricing power, creative heritage and craftsmanship, not the raw material.** businessoffashion.com/reports/luxury/the-state-of-fashion-luxury
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- **Sourcing Journal - MycoWorks Closes Factory as 'Cheaper Mycelium Sources Exist' (October 17, 2025).** Closure of the Union, South Carolina plant; shift from direct cultivation to processing-only of third-party mycelium via Rei-Tan technology. sourcingjournal.com/sustainability/sustainability-news/mycoworks-closes-factory-cheaper-mycelium-sources-exist-1234785663
- **Sourcing Journal - Natural Fiber Welding Back in Business (January 2026).** NFW resumes operations thanks to new investors (Provest Equity Partners, CTW Venture Partners) following the September 2025 closure announcement. sourcingjournal.com/sustainability/sustainability-news/natural-fiber-welding-back-in-business-mirum-investors-1234798342
- **The Business of Fashion - "Luxury and Fur: Who's In and Who's Out?"** Timeline of luxury fur bans since 2016; of 25 major maisons, only 7 without a ban (2022). businessoffashion.com
- **TômTex** - bio-based material (chitosan from mycelium and shells) embossable with crocodile/snake textures; Series WS and Series M; collaborations with Peter Do, Alexander Wang, Ralph Lauren, Parley. tomtex.com
- **TRAFFIC / European Commission** - reptile skins = 10% of CITES seizures in the EU in 2022.
- **Trellis - How Mercedes-Benz, Cadillac and BMW are looking past leather (September 2, 2025).** Collaboration between Modern Meadow and Mercedes-Benz on INNOVERA seating for the automotive sector. trellis.net/article/mercedes-benz-cadillac-alternative-leather-interiors-startups
- **Wikipedia - MycoWorks (accessed July 2026).** Confirms the November 2025 closure of the historic Emeryville, CA headquarters and pilot plant as well. en.wikipedia.org/wiki/MycoWorks
- **WWD / Sourcing Journal - NFW's Corporate Restructuring Spawns Third Wave of Layoffs (April 22, 2026).** Further staff reductions at NFW following the January 2026 relaunch. wwd.com/sourcing-journal/sustainability/nfw-corporate-restructuring-third-wave-layoffs-mirum-1238851729
- **Yahoo Finance / Sourcing Journal - Mirum-maker Natural Fiber Welding to 'wind down' operations (September 12, 2025).** Announcement of the cessation of operations by Natural Fiber Welding (maker of Mirum®). finance.yahoo.com/news/mirum-maker-natural-fiber-welding-104749076.html

Luxury brand e-shops - exotic products

- **Fendi** - fendi.com - Exotic Bags" section: Peekaboo in crocodile leather (100%); Peekaboo python.
- **Gucci** - gucci.com: Jackie Python Wallet (python), Bamboo 1947 (crocodile and python).
- **Hermès** - hermes.com/precious-leather: "Crocodile leather (alligator mississippiensis, crocodylus porosus and crocodylus niloticus), ostrich leather and lizard leather".
- **Louis Vuitton** - louisvuitton.com - "Exotic Leather Bags" category: "python, lizard, mink, ostrich and crocodile". Care instructions: "These species are protected by the Washington convention".
- **Prada** - prada.com.

Exotic skin prices and market

- **AMTAN - American Tanning & Leather LLC** - US CITES costs: amtan.com/pages/international-shipments
- **AMTAN: CITES Permit \$ 100 + USFWS \$ 186 + Courier \$ 150 = \$ 436 per US shipment**

- **LDWF Annual Reports** - farm gate A. mississippiensis: \$ 6,50/cm.
- **PanAm Leathers** - V. salvator, S. merianae supply chains.
- **Rojé Leather** - C. niloticus Grade 1, European market: €30-38/cm.

Next-gen materials

- **Desserto®** - desserto.com.mx. Kering partnership March 2025.
- **Kering Capital Markets Day 2026 “ReconKering”** - 16 April 2026, Florence. Video: <https://www.youtube.com/watch?v=2bOx1fxTTXM> - Presentation: https://www.kering.com/api/downloadfile/?path=20260416_Kering_Capital_Markets_Day_2026_293c948e2e.pdf
- **Lab-Grown Leather Ltd** - lab-grown-leather.com (BSF Enterprise PLC, LON: BSFA).
- **Modern Meadow INNOVERA™** - innovera-world.com; modernmeadow.com. Presented at Lineapelle Milan.
- **MycoWorks** - mycoworks.com; Fashion Dive (July-August 2023); WWD (December 2024).

Regulation

- **CITES Appendix II** - V. salvator, C. niloticus, A. mississippiensis, P. bivittatus, M. reticulatus, S. merianae, S. camelus.
- **EU Digital Product Passport** - ESPR, Regulation (EU) 2024/1781; delegated act on textiles expected around 2027, obligation not before 2028. ec.europa.eu
- **EU Strategy for Sustainable and Circular Textiles** - March 2022.
- **Reg. EC 338/97** - eur-lex.europa.eu (consolidated text 2023).

Photo Credits

All photographs of live animals used in this document are from Wikimedia Commons (unless otherwise noted) and have been cropped and/or resized to fit the layout; no changes have altered the subject depicted. The photos of the four products on page 18 are screenshots for editorial/critical purposes from the official websites of the respective brands.

Cover – Malayopython reticulatus. Photo: Provided by LAV.

Ch. 1, p. 6 – Salvator merianae. Photo: João Pedro Scarpa Balestrieiro, Pexels License (cropped). <https://www.pexels.com/license/> - <https://www.pexels.com/photo/argentine-black-and-white-tegu-in-forest-habitat-29309473/>

§2.1, p. 7 – Crocodylus niloticus. Photo: Christiaan Nel, Pexels License (cropped). <https://www.pexels.com/photo/nile-crocodile-resting-on-riverbank-in-south-africa-29216029/>

§2.2, p. 9 – Alligator mississippiensis. Photo: Dirk Schuneman, Pexels License (cropped). <https://www.pexels.com/photo/an-alligator-walking-on-a-grassy-field-9710056/>

§2.3, p. 12 – Varanus salvator. Photo: Erik Karits, Pexels License (cropped). <https://www.pexels.com/photo/a-monitor-lizard-walking-on-the-ground-23826710/>

§2.4, p. 14 – Crocodylus sp. (farmed). Photo: Farm Transparency Project, CC BY 4.0 (cropped). <https://www.farmtransparency.org/photos/3wn5i9uwwp06z719Onzp>

§2.5, p. 15 – Malayopython reticulatus (detail). Photo: Erdal Erdal, Pexels License (cropped). <https://www.pexels.com/photo/a-large-snake-laying-on-the-ground-with-its-head-resting-on-its-body-27816151/>

§2.6, p. 16 (collage) – Crocodylus niloticus, Alligator mississippiensis, Malayopython reticulatus, Varanus salvator. Photos: Christiaan Nel / Dirk Schuneman / Erdal Erdal / Erik Karits, see above (cropped and recomposed into a collage).

Product photos,

p. 18 Photos: Fendi, Prada, Gucci, Hermès (editorial screenshots from the respective official e-shops). [fendi.com](https://www.fendi.com) / [prada.com](https://www.prada.com) / [gucci.com](https://www.gucci.com) / [hermes.com](https://www.hermes.com)

Ch. 4, p. 21 – Alligator mississippiensis. Photo: mysurrogateband, Pexels License (cropped). <https://www.pexels.com/photo/alligators-in-wetland-habitat-in-colorado-30272105/>

Ch. 5, p. 28 – Opuntia ficus-indica (nopal). Photo: Raymond Petrik, Pexels License (cropped). <https://www.pexels.com/photo/close-up-of-a-large-prickly-pear-cactus-26832670/>

Ch. 6, p. 35 – Elaphe carinata. Photo: Allentchang, CC BY-SA 3.0. <https://creativecommons.org/licenses/by-sa/3.0/> - https://commons.wikimedia.org/wiki/File:Elaphe_carinata_in_Soochow_University_20070428.jpg





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