

# Enterprise Text-to-Image Model Benchmarking: A Comprehensive Analysis of Commercial Readiness

Efrat Taig, PhD,

Gal Davidi

Bria.ai

#### **Abstract**

This report presents a benchmarking analysis of five text-to-image (T2I) models targeting commercial B2B use cases¹: Adobe Firefly 4.0, Bria 3.2, Google Imagen 4, Flux.1-Dev, and Stability 3.5 Large. This cohort was selected for its alignment with commercial-readiness principles, offering either training on licensed datasets and/or development-oriented solutions with transparent, open-source infrastructure. The evaluation focuses on three pillars critical for enterprise use cases: output quality, technical implementation, and risk and regulation. Output quality is assessed through a combination of human evaluators and automated processes. Technical implementation measures how easily organizations can fine-tune models and develop new capabilities for enterprise needs. Finally, risk and regulation examine elements related to compliance, safety, and risk assessments.

This study shows that while the Google Imagen 4 T2I model has some advantages in overall quality, it significantly lacks in data transparency and developer-friendliness, with no

<sup>&</sup>lt;sup>1</sup> Disclosure: This research was conducted by Bria.ai employees. <u>To ensure objectivity</u>, all evaluations used third-party platforms (rapidata.ai for aesthetic assessment, Google Cloud Vision API for OCR, Gemini API for prompt alignment) and double-blind methodologies where human judgment was involved

open-source availability. It is considerably more challenging to fine-tune or develop. The three open models, Bria 3.2, Flux.1-Dev and Stability3.5Large, demonstrate top-tier quality output across a diverse prompt set and structured evaluation process. These outcomes are particularly notable given Bria 3.2's compact architecture and commitment to legal and data transparency. Lastly, Adobe FireFly 4.0's closed model, although also trained on licensed data, ranked last in overall quality in this study, due to its technical implementation, which utilized a limited set of APIs, lacked open-source components, and had no fine-tuning options available to the public.

This study offers a practical snapshot for exploring T2I models that align with real-world commercial needs, where visual quality must be balanced with legal reliability, safety, development velocity, and operational fit.

#### Introduction

The field of generative text-to-image (T2I) models is advancing rapidly, with an ever-growing variety of models competing for the attention of AI teams, designers, and engineers. Ironically, this abundance makes it more difficult than ever to choose the right model: which ones are truly suitable for commercial development? Which deliver not only impressive outputs, but also consistency, transparency, and legal and technical accountability?

It is essential to note that while hundreds, if not thousands, of applications today are capable of generating images from text, they are all built on dozens of models, of which **only a small subset were purpose-built for commercial use**. These models are distinguished by their use of access methods (API, source code, etc), licensed data, regulatory compliance, built-in safety layers, and controllable fine-tuning options. For organizations operating in brand-sensitive or regulated environments, this distinction is critical.

In this report, we present a structured comparison of five<sup>2</sup> leading models: **Adobe Firefly 4.0**, **Bria 3.2**, **Google Imagen 4**, **and Flux.1-Dev** and **Stability 3.5 Large**. Our goal is to provide a clear, evidence-based foundation for technical audiences — including AI researchers, developers, and decision-makers — to make informed choices when selecting models for sensitive commercial applications, such as visual content automation, creative marketing workflows, and end-user product experiences.

Generally speaking, the structure of the evaluation process is divided into three pillars;

- 1. Output quality
- 2. Technical Implementation
- 3. Risks and regulation

<sup>&</sup>lt;sup>2</sup> \*In this paper we considered Open Al Dalle's main purpose for consumer use cases. It has no open source and lacks a comprehensive API and the model trained on unsafe data.

#### **Output Quality: The Foundation of Commercial Viability**

Output quality represents the fundamental capability of a text-to-image model to produce visually appealing and commercially viable content. This pillar is constructed from three interconnected components:

<u>Prompt Alignment</u> measures how accurately the model interprets and executes textual instructions. This includes the model's ability to comprehend complex descriptions, adhere to specific compositional requirements, and generate images that accurately represent the intended concept. For commercial applications, prompt alignment has a direct impact on content creation efficiency, reducing the need for multiple attempts at generation.

<u>Text Rendering</u> evaluates the model's capability to generate clear, readable text within images—a critical requirement for marketing materials and signage. This encompasses both the visual clarity of rendered text and the accuracy of character recognition across various fonts, sizes, and contextual placements.

<u>Aesthetics</u> assesses the overall visual quality, artistic appeal, and professional polish of generated images. This includes factors such as composition balance, color harmony, lighting consistency, detail resolution, and the absence of visual artifacts.

Note that aesthetic quality alone is not enough for enterprise use cases. The generated content must meet brand standards, maintain the authenticity of product shots, and accurately represent brand assets. In production and post-production flows, content generation capabilities should be easily integrated with existing pipelines and processes. The ability to easily adjust the model to brand criteria and efficiently integrate into existing flows will be discussed in the Technical Implementation section.

#### **Technical Implementation**

Technical implementation evaluates how effectively organizations can deploy, customize, and integrate text-to-image models into their existing workflows and systems. This pillar encompasses several critical dimensions for enterprise adoption.

<u>Model Accessibility and Transparency</u>: The degree to which organizations can access, inspect, and modify the underlying model architecture. This includes the availability of model weights, training code, architectural documentation, and transparency regarding training data sources. Greater accessibility enables teams to customize models for specific enterprise requirements while maintaining compliance and safety standards.

<u>Customization Capabilities</u>: The ability to easily adjust models to meet specific brand criteria through fine-tuning, enhanced algorithms, and creative pipelines. For enterprise use cases, generated content must meet brand standards, maintain the authenticity of product shots, and accurately represent brand assets. These capabilities are essential for organizations requiring a consistent visual identity across their generated content.

<u>Integration and development Infrastructure</u>: The availability of APIs, SDKs, MCP servers, development options (cloud, on-premises, hybrid), and compatibility with existing enterprise tools and workflows. This includes considerations of model size, computational requirements, and scalability for production environments.

<u>Developer Experience</u>: The quality of documentation, community support, ease of implementation, and time-to-deployment for technical teams working with the model.

#### Risks and Regulation: The Enterprise Compliance Foundation

As the commercial adoption of generative AI accelerates, questions of legality and licensing have become central to the conversation. Text-to-image models trained on unlicensed or scraped data may produce visually stunning results, but they come with hidden risks: potential privacy infringement, copyright violations, unauthorized likeness generation, or brand misuse. For enterprises operating in regulated or brand-sensitive sectors, these are not theoretical issues, but operational red lines.

Risks and regulations represent the critical compliance framework that determines whether a text-to-image model can be safely deployed in enterprise environments. This pillar addresses the legal, ethical, and regulatory considerations that are increasingly essential for commercial Al deployments.

<u>Training Data Compliance</u>: The legal status and provenance of data used to train the model. This includes whether training data consists of properly licensed content, public domain materials, or potentially infringing copyrighted works. Models trained on fully licensed datasets provide legal certainty, while those using scraped internet data introduce potential copyright and privacy risks that can expose organizations to litigation and regulatory penalties.

<u>Regulatory Alignment</u>: Compliance with emerging AI regulations such as the EU AI Act, which mandates transparency in AI systems, risk assessments, and data governance standards. This includes requirements for model documentation, bias testing, and the ability to provide explanations for AI-generated outputs. Organizations operating in regulated industries or global markets require models that meet these evolving compliance standards.

<u>Intellectual Property Protection</u>: The availability of legal indemnification and intellectual property protections for generated content. This encompasses both protection against claims related to the use of training data and guarantees regarding the originality of generated outputs. Enterprise deployments require clear legal frameworks that protect organizations from potential IP disputes.

<u>Safety and Content Moderation</u>: Built-in safeguards against generating harmful, biased, or inappropriate content. This includes protections against creating deepfakes of real individuals, generating content that violates platform policies, or producing outputs that could damage brand reputation. The development and implementation of safety features, content moderation, and guardrails can consume up to 50% of development time, significantly lengthening the time and

resource requirements to complete a development cycle. Models with pre-built safety layers considerably reduce this burden.

<u>Data Sovereignty and Privacy</u>: The model's handling of user inputs, generated outputs, and any personal or proprietary data processed during image generation. This includes data retention policies, cross-border data transfer compliance, and the ability to deploy models in isolated environments for sensitive applications.

Together with output quality and technical implementation, this regulatory framework ensures that AI deployments not only perform effectively but also operate within legal and ethical boundaries required for sustainable enterprise adoption.

# **Evaluation Framework and Methodology**

# Benchmarking in the Age of Commercial AI: A Methodological Perspective

As Al-generated visual content becomes increasingly integrated into commercial workflows, the imperative for robust, transparent benchmarking has never been greater. The focus of this paper is to develop a systematic evaluation framework tailored to enterprise-grade requirements, one that not only scores outputs but also dissects them. As mentioned, the benchmarking process spans three pillars: the output quality, technical Implementation, and Risks and regulations. This tripartite structure ensures that evaluation is not only technically rigorous but also reflective of real-world production needs.

We chose to benchmark models based on two key criteria, derived from real commercial requirements: models that are **open-source** or **API-first**, and models that are **trained on licensed data**.

Model Test (order by ABC)	Open Source	Generation and Al Edit API	Licensed data
Adobe Firefly 4.0	×	Limited	V
Bria 3.2	V	V	V
Google Imagen 4	Х	V	Х
Flux.1-Dev	V	Limited	Х
Stability3.5Large	✓	V	Х

The evaluation framework assesses text-to-image models across three critical enterprise dimensions through a combination of automated evaluation, large-scale human assessment, and structured technical analysis. Our approach prioritizes real-world commercial development challenges over academic benchmarks, utilizing over 3,400 human evaluators, 23 diverse prompts, and comprehensive compliance analysis to provide enterprise decision-makers with actionable insights.

The detailed methodology for each evaluation component is outlined in the following sections.

# **Output Quality Assessment Methodology**

#### Output Quality: Aesthetic Quality Assessment

Evaluating aesthetic quality in generative models poses a unique challenge, often entangled with subjective perception and brand familiarity. To address this, our framework adopts a double-blind comparative methodology conducted on the <a href="https://www.rapidata.ai/">https://www.rapidata.ai/</a> platform—an independent crowd-sourced evaluation environment. Participants, unaware of the models behind the visuals, were asked a single, deliberately simple question: "Which image do you find more aesthetically pleasing?" By showing unlabeled image pairs and withholding prompts, we minimized external influences, allowing reviewers to focus solely on the visual impact. Each image pair was evaluated by 31 unique individuals, culminating in over 3,400 participants and approximately 1500 responses per model comparison. This large, diverse sample reinforces statistical reliability. While we cannot confirm the professional backgrounds of all raters, the aggregated judgments reflect a broader, market-relevant aesthetic consensus. Ultimately, this approach ensures that our assessments prioritize visual excellence over reputational influence—a crucial distinction for any enterprise model seeking genuine creative adoption in the real world.

#### Output Quality: Prompt Alignment Evaluation

Prompt-image alignment is a fundamental requirement for commercial image generation, particularly in domains where nuance and precision are key to building user trust. To evaluate this alignment, we used an automated scoring system powered by the Gemini API.

Our internal team carefully crafted a diverse set of prompts, covering a wide range of request types — from compositional to abstract — to reflect real-world production scenarios. Scoring was done on a 0–5 scale.

To assess alignment, we used a vision-language model (VLM) specifically instructed to compare images side by side and judge which one better matched the prompt. This automated approach ensures consistent, objective evaluation, and results were measured by the percentage of times a given image was preferred.

The full set of prompts used in our evaluation is included below. These prompts were designed to represent a broad spectrum of use cases — from simple object requests to complex, multi-element compositions and abstract concepts. This variety ensures that the evaluation captures the performance of image generation systems across realistic and challenging scenarios.

A minimalist icon of a shopping cart with a bold outline, in a flat, modern style, featuring a small wheel and a simple handle.

A black-and-white coloring book page of a cheerful frog wearing a crown, sitting on a lily pad in a calm pond. Surrounding the frog are large lily pads, delicate water lilies, and tall reeds along the pond's edge. Gentle ripples encircle the frog. The frog's crown is decorated with small jewels, creating a whimsical touch to this charming pond illustration.

A black-and-white ink wash painting of two people with empty floating speech bubbles, symbolizing unspoken words.

A surrealist painting of majestic horses pulling a vintage carriage across the Moon, carrying the Statue of Liberty and the Eiffel Tower. Earth glows above as snowflakes fall.

A digital cartoon of a baby parrot with large eyes and a little boy, lush greenery, butterflies flying in the sky, colorful gradients, vivid colors

A simple, hand-drawn by a child, colored pencil drawing of a red car parked on a sandy beach

Two oil paintings of a raccoon king and queen hanging in a royal castle, observed by a cute black dog standing on a golden carpet.

A pop-art digital illustration of an elderly Black woman in neon pink glasses and a bright green turtleneck. The background is electric pink.

A photo of three animals viewed from above: a dog, a cat, and an iguana on a simple black background

A realistic shot of a black wiener dog dressed as a ballerina with a purple tutu skirt. In the background, there is a garden, a yellow pool and a huge amount of yellow flowers.

A photo showcases a watercolor painting setup on a surface divided diagonally into coral red and dark olive green. On the right, a black-handled paintbrush lies horizontally, and a white paint-splattered palette nearby displays various mixed colors. The centerpiece features a watercolor painting of a giraffe's head and neck in warm brown and tan tones with darker spots. Two large green leaves overlap the painting in the top left corner, while three small watercolor pans in bright red, light brown, and dark black are loosely arranged in the bottom left.

A photo of a half-peeled apple reveals a ripe kiwi nestled within its core, surrounded by the apple's juicy interior. The apple sits on a wooden table, with sunlight illuminating the rich red skin and casting soft shadows on the surface.

A realistic portrait of a family dressed as pirates, the little boy proudly holds a sword.

Photo of a black teenage male, looking up and raising one arm, standing on one foot, white background

A side-shot photo captures a grandmother reading a bedtime story to two toddlers, a giggling boy in a blue shirt and a girl with pigtails, both snuggled up close, their faces softly lit by the warm glow of a lamp.

A lively photo shows three friends leaning close together, whispering excitedly on a busy city street. A Latino man with a neatly trimmed beard is in the center, engaged and animated. To his left, an asian woman with bright orange straight hair that shines in the soft afternoon sun, and to his right, a black woman wears stylish leopard sunglasses and smiles as she listens. The warm afternoon light highlights their cheerful expressions, and the photo is taken from a low angle, capturing the energy of their conversation and the bustling city around them.

A 2d illustration of two baseballs to the left of three tennis balls

a flat minimalistic 2D illustration of a dark skin little girl with a red shirt and purple shorts, a red bow on her head, red boots, with purple hair, holding a yellow teddy bear, set against a light solid pink background

A photo of a beautiful woman wearing a green dress. Next to her there are three separate boxes. The Box on the Right is filled with lemons. The box in the Middle has two kittens in it. The Box on the Left is filled with pink rubber balls. In the background there is a potted houseplant next to a Grand Piano.

A fantasy-style illustration of a whimsical unicorn munching on colorful donuts, with a text bubble that says, "Donut Time!" The unicorn's shimmering mane sparkles in a magical setting filled with frosted treats.

a black and white graphic design of the text "Live boldly, love deeply, dream big" with smoke effect

surreal photography, an extreme closeup on a dragons eye, the pupil has a green hue with golden glitter, the dragon skin surrounding the eye is green with hints or orange, intricate details, drama,

surreal hyper detailed illustration an extreme closeup on a female elf, wearing a green coat with golden glitter, in the background a detailed green forest with hints of orange, intricate details, drama

hyper realistic ultra detailed ink illustration backview of an astronaut with an orange suit standing on a cliff of a blue alien planet overlooking

a majestic planet landscape. Spaceships are hovering above.

a photo of a beautiful ginger business woman in a business suite holding a pink ball, perfect facial features, in the background a pool party in California, palm trees and sunlight. orange and purple hue

#### Output Quality: Text Rendering Analysis:

Text rendering in generative images isn't merely an aesthetic feature—it's a functional necessity in enterprise contexts like advertising, packaging, and digital media. Our analysis employs OCR-based methods using the Google Cloud Vision API, structured around a robust success criterion: at least one correct rendering per four-image set. This conservative standard acknowledges both the probabilistic nature of generative outputs and the operational need for reliable results.

To assess text generation quality, we used both Vision-Language Models (VLMs) and traditional OCR modules to extract text from generated images. The extracted text was then compared to the instruction text. We report the percentage of cases where at least one out of four generated images contained a perfect match to the instruction text.

# **Output Quality Performance**

#### **Output Quality Results**

Our evaluation indicates that while leading open-source models differ in their size (12B Flux.1-Dev, 8B Stability, 3.5 Large & 4B Bria 3.2), all of them generally achieve comparable performance across multiple dimensions of generative image quality. While these models demonstrate strong overall fidelity, Google Imagen continues to set the benchmark for image generation, particularly in fine-grained detail and realism.

Adobe Firefly 4.0, on the other hand, falls short in several areas, most notably inthe accurate rendering of text. These gaps are especially evident in side-by-side comparisons with the open-source cohort, which offers similar or superior output quality. This

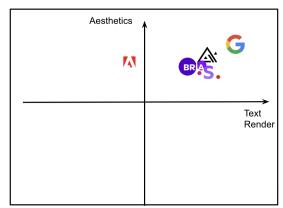


Figure 1: the five models compared by text rendering and Aesthetic. Prompt alignment tests result in the same level of quality in all models.

highlights the growing maturity and accessibility of open-source generative models for commercial-grade deployment, where striking a balance between efficiency and output quality is crucial.







Bria 3.2 Adobe Firefly 4 Flux 1 [Dev]

Prompt: "A high-energy photo of a male DJ performing at a rave, captured mid-set under dramatic lighting. He wears a black t-shirt with the word "RAVE" integrated into a complex, abstract graphic design on his chest, glowing subtly in deep electric blue. He has a full beard, mirrored sunglasses, a backward cap, and over-ear headphones. His hands work a dual-deck DJ mixer, which reflects ambient orange and blue lights. The color scheme is vibrant and cinematic, with warm amber and neon magenta hues in the background, contrasting with cool cyan mist above the crowd. Blurred silhouettes of dancers surround him, creating a pulsing, immersive nightlife atmosphere."

#### **Prompt Alignment Accuracy**

The alignment of prompt images across all models tested fell within the **top performance tier**, suggesting high semantic coherence in the generated outputs. **Adobe Firefly 4.0**, **Bria 3.2**, **Google Imagen 4**, **and Flux.1-Dev** and **Stability 3.5 Large** all achieved similar accuracy levels.







Bria 3.2 Adobe Firefly 4 Flux 1 [Dev]

three scoops of icecream, on the left strawbery in the middle chocolate and on the right vanilla on a plate, in the background a light blue backdrop

#### **Text Rendering Performance**

Recent evaluations of text rendering accuracy—measured by an OCR-based success rate where at least one correctly rendered text instance appears across four generated images—highlight a clear tiering among generative models. Google Imagen leads with an 80%

success rate, followed closely by Stability at 76% and Flux.1-Dev at 75%. Bria 3.2 also performs strongly at 70% (with massive improvement from Bria 3.1, which achieved only 5%), placing it in the same high-quality range as other leading open-source models.

In contrast, Adobe Firefly trails at 46%, underscoring the rapid progress achieved in the latest generation. Collectively, the results affirm the growing capability of open-source models, such as Bria, Flux, and Stability, to meet the demands of text-intensive prompts with high reliability, thereby narrowing the gap with top-performing proprietary systems.







Bria 3.2

Adobe Firefly 4

Flux 1 [Dev]

A vibrant birthday cake displayed on a festive table, frosted in smooth sky-blue icing with colorful sprinkles along the edges. Piped in bold white frosting across the top are the words "BIG BOY NOW" in playful, slightly uneven lettering. The cake is decorated with mini stars, balloons made of fondant, and a single candle burning brightly in the center. Soft, warm lighting highlights the texture of the frosting, while a blurred background of party decorations—streamers, confetti, and balloons—adds a joyful, celebratory atmosphere.

#### **Aesthetic Quality Assessment**

Our aesthetic benchmark indicates that Bria 3.2, Stability 3.5, Flux.1-Dev, and Adobe Firefly all deliver comparable visual quality, with user preferences distributed almost evenly across the group. In direct head-to-head comparisons, no model in this cohort exceeded a 54% preference margin over another, underscoring their placement within the same top-tier aesthetic bracket.

Google Imagen 4 stands out slightly, receiving approximately 65% user preference, suggesting a modest edge in perceived visual appeal.







Bria 3.2 Adobe Firefly 4 Flux 1 [Dev]

Prompt: "Highly detailed felt puppet of a dinosaur, crafted from soft textured felt with embroidered edges and simple stitched facial features. set within a handcrafted, artisanal puppet theater scene made of wood and fabric, with warm, natural lighting to emphasize texture and craftsmanship. No branding or identifiable characters. in the background a dark and magical nursery at night, teal and orange hues, majestic, high contrast, darma"

## Risks & Regulation

Adobe Firefly 4 — Licensed but less transparent. Firefly is trained on Adobe Stock, public-domain content and customer-supplied assets, giving it a primarily licensed foundation and optional enterprise indemnity. Adobe discloses high-level data sources and embeds metadata for traceability; however, it provides no granular dataset list and currently relies on its cloud for serving, which can limit strict sovereignty requirements. Firefly adopts C2PA marking for synthetic data. The model can't generate protected IP, famous people, or inappropriate data.

Bria 3.2 — Gold-tier compliance. Bria publicly discloses the full provenance of its training corpus—100 % licensed images from Getty Images, Alamy, Envato, DepositPhotos, and more — and contractually commits to *never* ingesting scraped or unlicensed data. Its three-layer safety stack (dataset vetting before training, real-time prompt & output filters during generation, and post-production audits and C2PA marking) blocks unsafe content at every stage, reducing the moderation burden for customers. Bria also offers blanket IP and privacy indemnification, meaning enterprises are shielded from claims arising either from the source data or the images they generate. Finally, the model ships under a commercial license that allows on-premises or VPC development, giving organizations complete control over data residency and sovereignty while remaining regulation-ready. The model can't generate protected IP, famous people, or inappropriate data.

Google Imagen 4 — Curated & indemnified, but not licensed. Google states that Imagen's corpus is "curated" from large public datasets and offers broad legal indemnification to Vertex Al customers. However, Google has not published a fully licensed dataset roster and is defending copyright suits alleging reliance on scraped imagery, leaving some unanswered questions regarding training data compliance. Deployment is cloud-hosted only, so sensitive sectors must accept Google's data-handling policies. The model can easily generate protected IP, famous people, and inappropriate data as it learns from the "curated" data.

**Stability 3.5 Large & Flux 1[Dev] — Highest risk, scraped data.** Both open-source models are trained on web-scraped datasets such as LAION-5B, which independent investigations have shown to include copyrighted, sensitive, and even explicit images of children, and they offer no indemnity to downstream users. Although popular for research, they require enterprises to implement their moderation, legal review, and privacy controls before production use, placing them in the "unsafe until proven otherwise" category under emerging AI regulations. The model can easily generate protected IP, famous people, and inappropriate data as it learns it from the scraped data.

	Adobe Firefly 4.0	Bria 3.2	Google Imagen 4	Flux.1-De v	Stability 3.5 Large
Al Act Compliance	V	V	×	×	X
legal indemnification	V	V	V	Х	Х
Intellectual Property Protection	V	V	Limited	Х	Х
Privacy and the protection of celebrity	V	V	Х	х	Х

# **Technical Implementation**

From an implementation standpoint, **Bria 3.2** offers the widest on-ramp for developers: you can call the model through a low-latency REST API, embed it directly in a front-end via a customizable iFrame, or invoke it from any agent that speaks the Model-Context-Protocol (MCP) server standard—handy for chaining Bria into multi-tool workflows. Beyond endpoints, Bria ships as an enterprise PaaS with a searchable knowledge center, step-by-step tutorials ("Cookbook"), and professional support, while remaining plug-and-play with open-source staples such as Hugging Face Diffusers and Comfy UI nodes. The core checkpoint

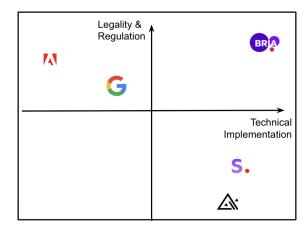


Figure 2: the five models compared by technical implementation vs risk and regulation

weighs in at **4 billion parameters**—roughly half the size of Stable Diffusion 3.5 Large (≈8 B) and only a third of Flux 1's 12 B—so fine-tuning or running in a VPC demands far less GPU memory and budget, making brand-specific adaptation markedly cheaper.

**Adobe Firefly 4.0** is almost as turnkey but sits behind Adobe's cloud: weights remain proprietary, yet the model integrates seamlessly into Creative Cloud apps and an API that now supports custom models trained on a customer's brand assets—an attractive path for design teams willing to work within Adobe's walled garden. **Google Imagen 4** adopts a similar SaaS posture on Vertex AI; Google offers rich SDKs and managed tuning jobs, but because the weights never leave Google's data centres, organisations must accept a fully cloud-hosted deployment and a less transparent training pipeline.

**Stability 3.5** and **Flux 1** publish their checkpoints openly and welcome LoRA or full fine-tunes; however, their 8–12 B-parameter footprints raise compute costs, and engineering teams must assemble their MLOps, guardrails, and support channels to achieve production readiness. Although some API implementations is available for these open-source models, the primary focus of consuming them remains access to the weights.

Together, these differences position Bria at the forefront for organisations seeking an on-premises-friendly model with enterprise-grade tooling and a more cost-effective tuning profile.

	Adobe Firefly 4.0	Bria 3.2	Google Imagen 4	Flux.1-De v	Stability 3.5 Large
Open Source	Х	V	Х	V	V
Community compliance	х	V	х	V	V
API generation and AI Edit	Limited	V	V	Limited	V
Flexible development option	Х	V	Х	V	V
MCP integration	Х	V	Х	Х	V
Fine-tuning (publicly)	Х	V	Х	Х	V

## Conclusions

Our benchmarking underscores a pivotal lesson for enterprise AI teams: raw generative quality is only the starting line. In production, models must also deliver *consistency, controllability, and legal defensibility*—attributes that are every bit as decisive as pixel-level fidelity. **Bria 3.2** demonstrates that these goals are not mutually exclusive: it pairs high prompt-to-image alignment, reliable text rendering, and appealing aesthetics with a compact architecture,

multilayer safety stack, open-weight transparency, and complete customer indemnity. This synthesis of performance and trust positions Bria at the intersection of enterprise-grade reliability and cutting-edge innovation.

Competing systems illustrate the trade-offs still common in the market. Adobe Firefly 4.0 offers a polished, proprietary service with strong compliance guarantees but limited transparency and development flexibility. Google Imagen 4 adds powerful managed tooling and broad indemnity yet keeps its weights closed and its training pipeline opaque. On the other end of the spectrum, Flux 1 [Dev] and Stability 3.5 champion open access and hackability, but leave governance, moderation, and legal risk mitigation to the user. Bria bridges this gap: it delivers the compliance assurances enterprises demand while preserving the openness and adaptability developers expect from modern AI.

Looking forward, text-to-image benchmarks will expand beyond today's metrics to encompass cultural sensitivity, multimodal grounding, latency, and real-time responsiveness. Bria's commitment to transparency, safety, and responsive support gives it a solid platform for meeting these emerging requirements. As generative AI becomes embedded in everyday visual workflows, the models that balance top-tier output with provable trust—rather than forcing organisations to choose between them—will spearhead the next wave of adoption.





Gal Davidi is a Senior AI engineer at <u>bria.ai</u>, conducting model evaluations and actively training foundation models. Brings over 7 years of experience in software engineering across diverse domains. Connect on Linkedin: linkedin com/in/gal davidi

LinkedIn: <u>linkedin.com/in/gal-davidi</u>

Efrat Taig is the VP of Generative AI Technology at <a href="bria.ai">bria.ai</a>, with a Ph.D. in Computer Vision and deep expertise in generative models, training pipelines, and applied research.

Connect on LinkedIn: linkedin.com/in/efrat-taig