# Straive

## Choosing the
# Right LLM for Pharma
### Balancing Accuracy and Cost in Content Generation

Selecting an LLM model that aligns with regulatory standards and budget limitations while producing high-quality and compliant content

## Define Objectives & Use Cases

STEP 1

- **Identify Content Needs:** Define the types of content (e.g., patient education, HCP engagement, compliance documentation) that the LLM will generate.
- **Set Priorities:** Establish priorities for content creation - accuracy, tone, scalability, speed, or compliance - to narrow down model features.

## Evaluate Compliance Requirements

STEP 2

- **Regulatory Considerations:** List out the regulatory guidelines you need to adhere to, including disclaimers, sourcing, and medical terminology.
- **Data Privacy and Security:** Choose models that comply with data privacy standards.

## Assess Model Quality & Accuracy Needs

STEP 3

- **Language Quality:** Look for LLMs known for generating high-quality, contextually accurate language suitable for technical, medical content.
- **Domain-Specific Training:** Consider models pre-trained or fine-tuned on medical and scientific datasets for greater accuracy for pharma-specific language.
- **Adaptability:** Assess if the model can be further fine-tuned with proprietary data to align with brand guidelines and compliance needs.

## Set Budget Constraints & Cost-Effectiveness

- **Cost:** Calculate the model's full cost, including licensing, customization, hosting, training, and maintenance expenses.
- **Compare Models :** Evaluate open-source options (e.g., LLaMA, Bloom) against commercial models (e.g., OpenAI's GPT, Google's PaLM) based on cost and quality requirements.
- **Scalability:** Factor in the scalability of each model to ensure that costs do not escalate disproportionately as usage grows.

**STEP 4**

## Choose a Deployment Approach

- **On-Premises:** For high security, consider an on-premises deployment, especially if handling sensitive patient or trial data.
- **Cloud:** Cloud deployment may be cost-effective and flexible, enabling faster updates and easier scaling.
- **Hybrid Models:** Evaluate a hybrid deployment to benefit from cloud flexibility while ensuring on-premises security for highly sensitive operations.

**STEP 5**

## Conduct Pilot to Measure Performance

- **Run the Pilot:** Select critical use cases and test the LLM's performance, evaluating its ability to meet accuracy, compliance, and tone requirements.
- **Stakeholder Feedback:** Collect feedback from teams such as legal, compliance and marketing to ensure it meets interdisciplinary requirements.
- **Bias and Quality:** Evaluate the model's outputs for any signs of bias, misinformation, or inaccuracies.

**STEP 6**

## Evaluate Maintenance & Support Needs

- **Support Requirements:** Check if the vendor provides adequate support for updates, troubleshooting, and compliance guidance.
- **Regular Audits:** Schedule periodic reviews of the model's outputs, updating fine-tuning as regulatory guidelines and internal standards evolve.
- **Model Lifespan:** Consider the model's viability in the long-term based on evolving pharma content standards.

**STEP 7**

## Establish Governance & Compliance Oversight

- **Oversight Mechanisms:** Set up a compliance review process for content generated by the LLM to ensure it meets legal and regulatory standards.
- **Accountability:** Assign teams to oversee LLM performance, quality assurance, and compliance.
- **Version Control:** Ensure that all content versions generated by the LLM are tracked, especially those edited for compliance or accuracy.

**STEP 8**

## Measure ROI & Performance

**STEP 9**

- **Efficiency Enhancement:** Monitor metrics such as content generation speed, quality ratings, and cost savings against traditional methods.
- **ROI:** Calculate returns based on factors like increased productivity, faster go-to-market and reduced regulatory fines.
- **Optimization:** Reassess model cost-effectiveness, especially as new LLMs emerge, or if your content requirements expand or change.

### With the right LLM Experts, get these steps right the first time

At Straive, this is what we are doing. We are driving this transformation across organisations. From Advisory to Implementation, Straive's Strategic Implementation Framework is enabling many organisations. We offer:

- **Industry-Specific Expertise:** Deep understanding of pharmaceutical regulatory requirements and content needs
- **Vendor-Neutral Approach:** Unbiased recommendations based on your specific requirements
- **End-to-End Support:** From strategy development to implementation and ongoing optimization
- **Risk Mitigation:** Proven methodologies for ensuring compliance and data security

### Schedule an Assessment

Receive a customized implementation roadmap and begin your LLM transformation journey.
**Contact us** to schedule your free consultation.