



STARAM ANALYTICS PRIVATE LIMITED

Transforming Legal Knowledge Management

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About Staram



Staram is working on making laws accessible and improving access to justice by enabling the building of technology solutions for the Indian law and justice ecosystem.

Founded in April 2024 and incubated at FIRST, IIT-Kanpur, with funding from Premji Invest, Staram is building an open-source legal layer using validated knowledge graphs and ontologies.

Staram's team is working together to achieve the following **broad objectives**:

- ✓ **To develop specialized Knowledge Graphs** for various legal domains, providing an organized framework to structure, relate, and understand legal information.
- ✓ **Advanced Legal Analysis with AI** using Large Language Models (LLMs) alongside KGs to analyze legal texts, identify patterns, and gain deeper insights into case outcomes, reasons for delays, and legal complexities.
- ✓ **AI-Powered Legal Solutions** to automate the classification of legal documents, suggest strategies for case management, and recommend solutions to improve legal processes.
- ✓ **Improving Legal Efficiency and Transparency** by empowering courts, legal firms, and government bodies with AI-driven tools to streamline legal operations, reduce case backlogs, and enhance transparency and accountability in decision-making processes.



Vision

Redefining legal solutions through pioneering Legal Knowledge Graph technology.



Mission

To develop AI-driven legal technologies that enhance efficiency, transparency, and accountability in legal processes. We aim to empower the legal ecosystem with innovative solutions that simplify decision-making and improve access to justice.



Tagline

Unmatched Legal Intelligence, Unparalleled Precision.

Values



Innovation



Transparency



Collaboration



Impactful



Agility

Brand Essence

Innovation and Exclusivity.

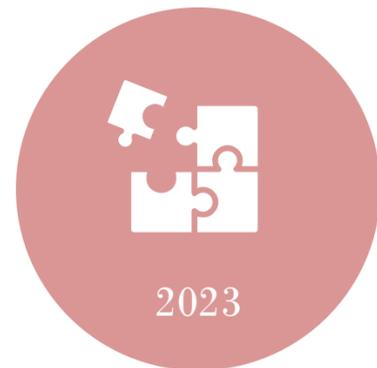
By leveraging Legal KGs (Legal Knowledge Graphs), Staram offers a transformative approach to legal research, predictive analytics, and document automation, providing insights and precision that no competitor can match.

Unique Selling Proposition (USP)

Staram is the only legal tech platform powered by Legal KGs, offering advanced AI-driven legal insights and automation with no comparable competition in the market.

OUR JOURNEY

Celebrate the excellent individual and collective achievements of your team here.



Ideation at Alliance for Indian Legal Ontology and Standardisation - an initiative under JDC



Incorporation of Staram



Premji Invest – CSR Grant received



POC work on the concept started



POC Demo

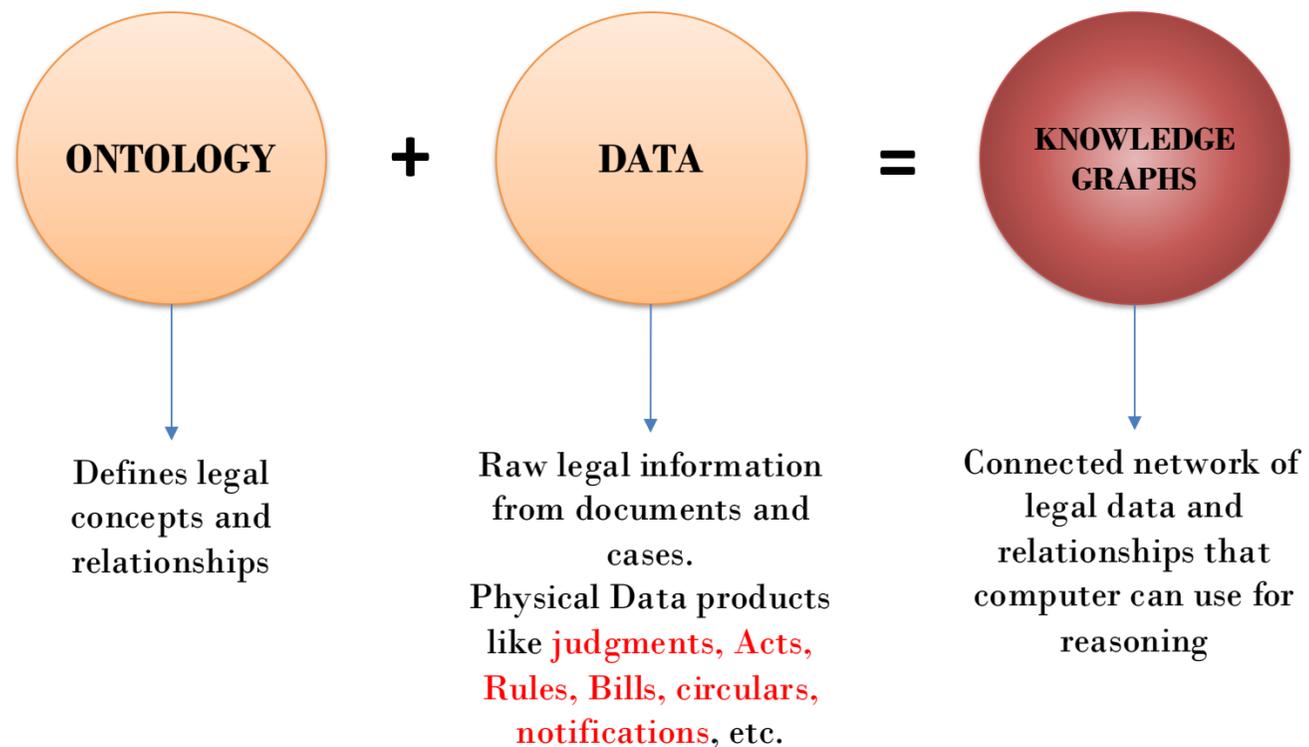
Our Approach

Transforming Legal Tech with LKGs and LLMs at Staram - we are revolutionizing the legal technology landscape by combining the strength of **Legal Knowledge Graphs (LKGs)** and **Large Language Models (LLMs)** to create a symbiotic relationship between continuous and discrete knowledge representations.

LKGs provide a framework for structuring legal data, while LLMs offer the ability to extract insights and relationships from vast amounts of text.

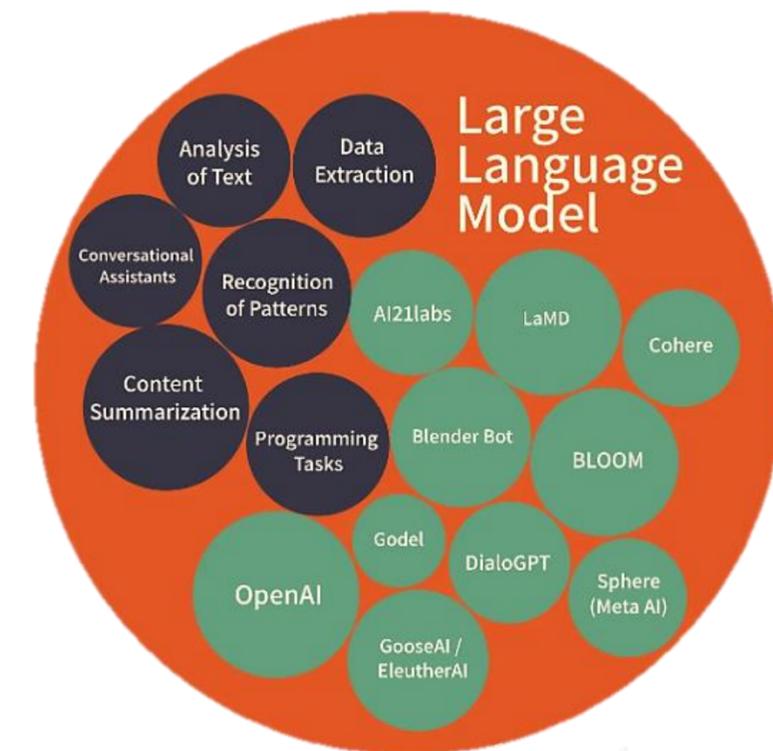
What are Legal Knowledge Graphs?

Knowledge graphs are collections of facts (called "triples"), **made for computers**



What are Large Language Models?

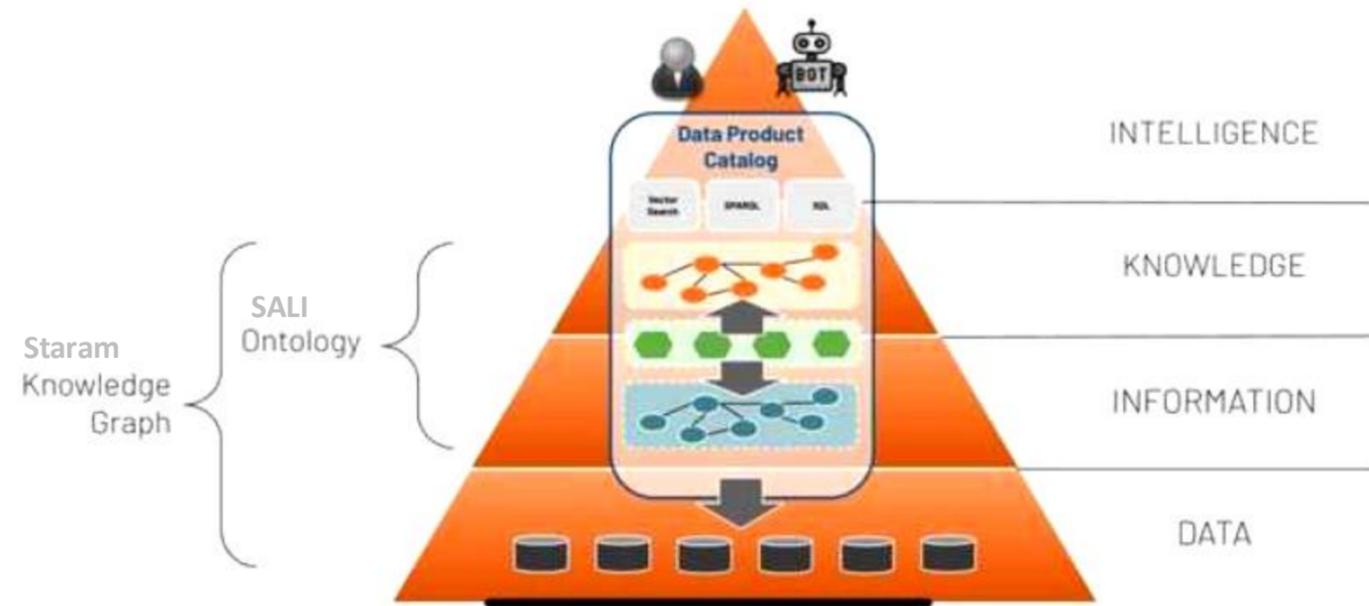
- ❖ **Advanced AI models**
- ❖ **Understand and generate human language**
- ❖ **Trained on vast amounts of text data**
- ❖ **Perform tasks like text analysis, summarization, translation, and generating content based on input.**



Our Approach

Why It Matters?

Our approach targets key stakeholders in the legal sector—courts, tribunals, government legal operations, law firms, banks & financial institutions and legal tech solution providers. By integrating LKGs and LLMs, we aim to not only **improve the efficiency** and **accuracy** of legal processes but also ensure ‘**transparency**’ and ‘**accountability**’ in AI-driven solutions.



Key Stakeholders of STARAM

- Courts
- Tribunals
- Government Agencies & Departments
- Law firms & legal practitioners
- Banks & financial institutions
- Legal tech solution providers
- Inhouse Counsels

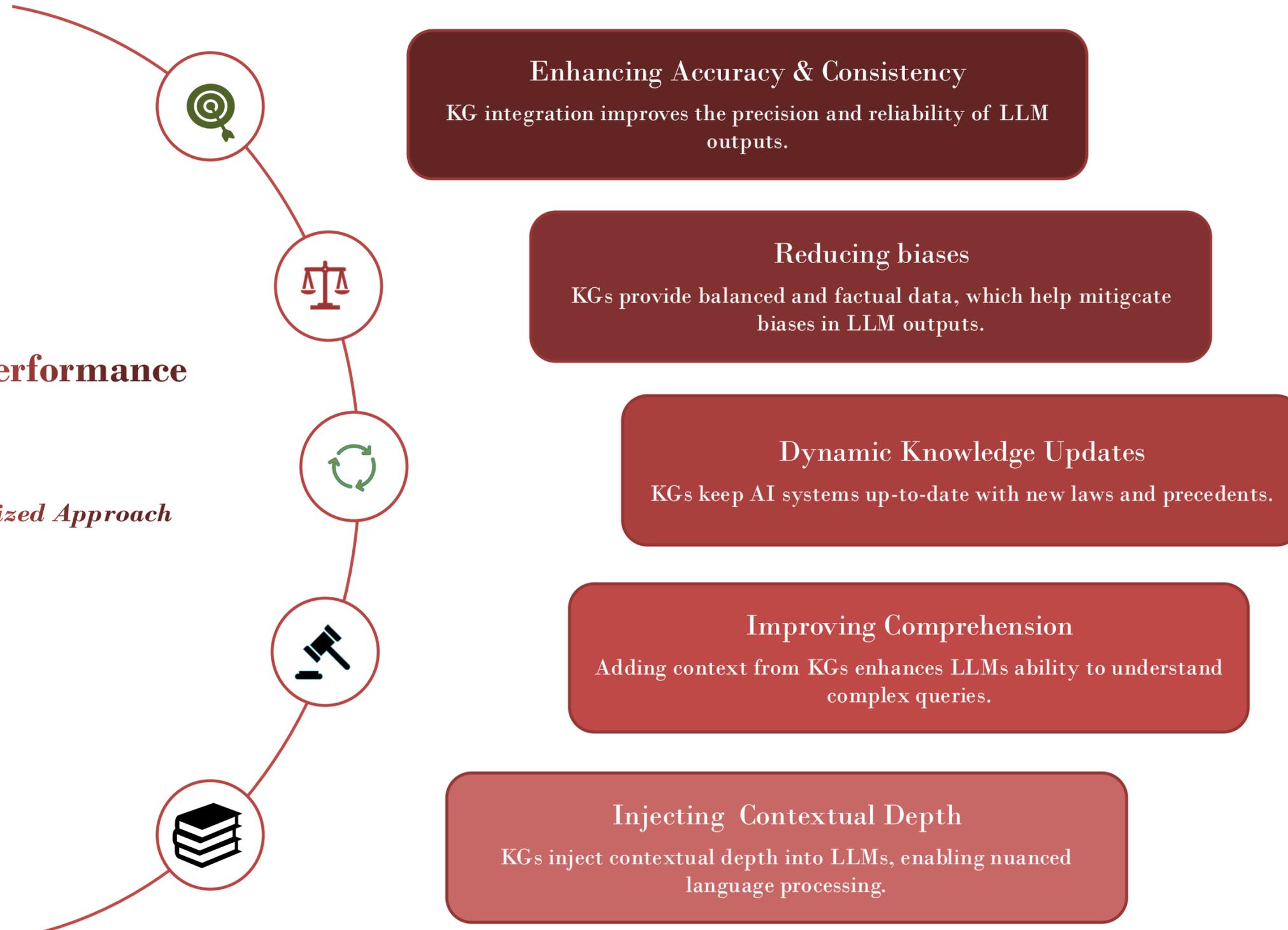
Collaborative Approach:

Staram will engage with multiple working groups, each focused on a specific area of Indian law. These groups will follow data and methodologies guided by technical teams.

Teams will collaborate to build knowledge graphs using an international ontology framework. This approach ensures comprehensive and standardized representation of India's legal landscape.

Our Approach

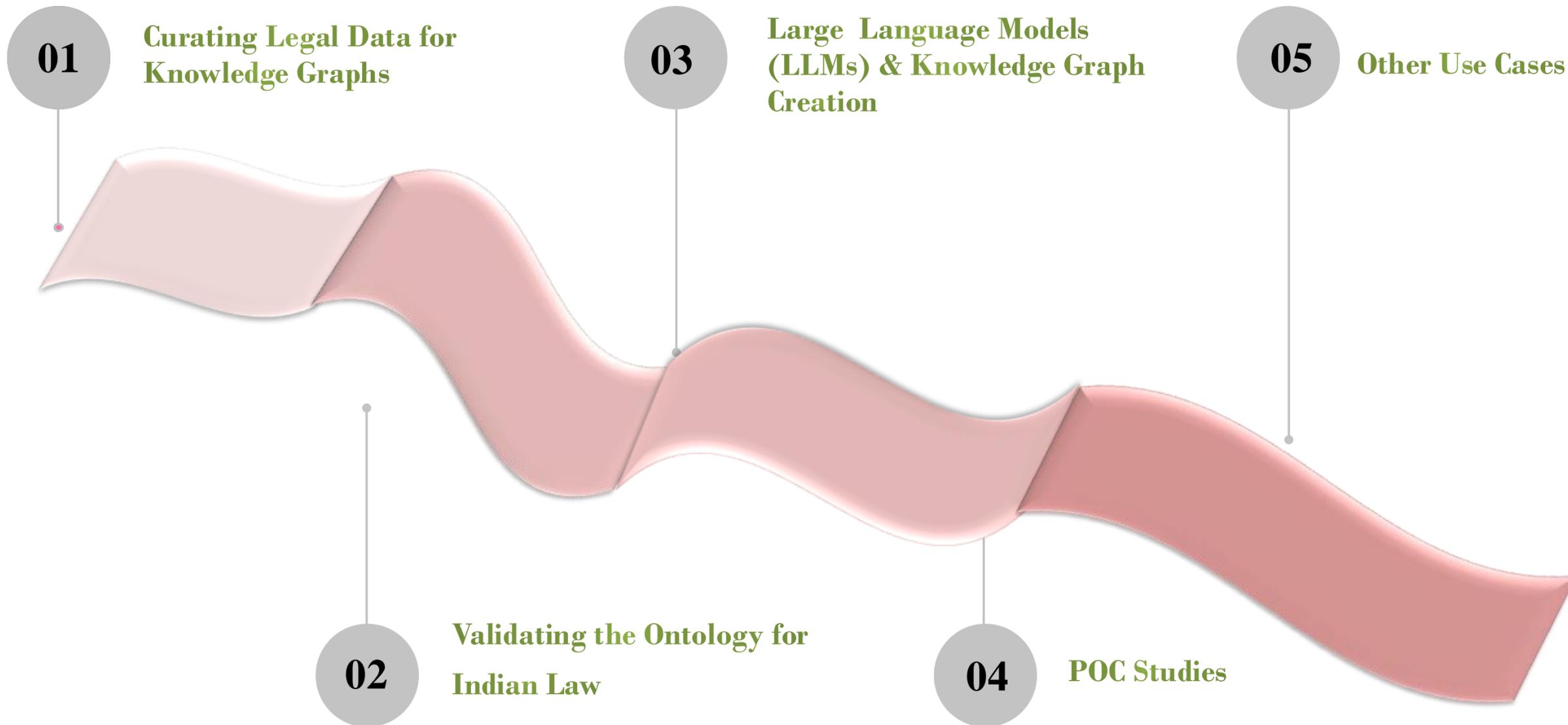
**Enhancing LLM performance
with LKGs**
LKGs + LLMs - A Synergized Approach



Our Methodology

Transforming Legal Tech with Legal Knowledge Graphs (LKGs) and Large Language Models (LLMs) at Staram - we are revolutionizing the legal technology landscape by combining the strength of LKGs and LLMs to create a symbiotic relationship between continuous and discrete knowledge representations.

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POC with Fintech Companies



Our initial vision is to transform financial services resonates deeply with Staram's mission to innovate through technology.

Developing specialized ontologies and knowledge graphs tailored to the financial sector will lead enhanced efficiency, transparency, and intelligence in loan management.

OUR KEY CONTRIBUTIONS

01

Optimized Loan Workflows:

Simplify and automate the loan application journey—from initial submission to approval—by integrating standardized processes and risk assessment models

02

Regulatory & Compliance

Automation: Develop ontologies that seamlessly adapt to the Reserve Bank of India (RBI) regulations, ensuring that Astra remains compliant in an ever-evolving regulatory environment.

03

Event-based Monitoring and

Prediction: Harness the power of real-time data to detect, predict, and respond to financial events like defaults or unusual transaction patterns.

04

Debt Recovery and Collateral

Management: Address critical gaps by designing India-specific ontologies that align with RBI guidelines, enhancing loan recovery mechanisms and asset classification protocols.

Building India-Specific Ontologies

Ontology	Uses	Software/Analytics Products
Loans Application	<ul style="list-style-type: none"> Automated loan application processing, Risk assessment automation, Regulatory compliance checking, Documentation generation 	<ul style="list-style-type: none"> Smart Loan Processing Platform, Automated Underwriting Systems, Digital Loan Documentation Generator
Loans Regulatory	<ul style="list-style-type: none"> Regulatory reporting automation, Compliance monitoring, Risk management, Audit trail maintenance 	<ul style="list-style-type: none"> Regulatory Reporting Dashboard, Compliance Monitoring System, Real-time Risk Assessment Tool
Loans Events	<ul style="list-style-type: none"> Event-driven automation, Transaction monitoring, Default prediction, Payment tracking 	<ul style="list-style-type: none"> Event Monitoring System, Early Warning System, Payment Processing Automation
Collection and Recovery	<ul style="list-style-type: none"> Collection stages, Recovery procedures, Default management, Workout solutions, Legal proceedings 	<ul style="list-style-type: none"> Debt Collection Software, Recovery Management System, Legal Case Management System
Collateral Management	<ul style="list-style-type: none"> Asset classification, Valuation methods, Lien hierarchies, Security interests, Enforcement rights 	<ul style="list-style-type: none"> Collateral Valuation Tool, Lien Management System, Asset Recovery Platform

Enhancing FIBO Ontologies

FIBO Ontology	<ul style="list-style-type: none"> • Uses 	<ul style="list-style-type: none"> • Software/Analytics Products
FIBO Foundations (FND)	<ul style="list-style-type: none"> • Core business concepts, • Agreements and contracts, • Relationships between parties • Accounting and monetary amounts, • Time and date relationships 	<ul style="list-style-type: none"> • Contract Management System, • Relationship Management System, • Accounting and Finance Software
FIBO Business Entities (BE)	<ul style="list-style-type: none"> • Legal entity identification, • Corporate structures, • Ownership hierarchies, • Jurisdictional relationships, • Business registration status 	<ul style="list-style-type: none"> • Entity Management System, • Corporate Registry, • KYC/AML Compliance Tool
FIBO Indices and Indicators (IND)	<ul style="list-style-type: none"> • Interest rate tracking, • Economic indicators monitoring, • Market condition assessment, Performance benchmarking, • Risk indicators 	<ul style="list-style-type: none"> • Market Data Platform, • Economic Indicator Dashboard, • Portfolio Performance Analyzer
FIBO Securities (SEC)	<ul style="list-style-type: none"> • Collateral management, • Asset-backed securities, • Securitization tracking, • Investment vehicle monitoring 	<ul style="list-style-type: none"> • Collateral Management System, • Asset-Backed Securities Platform, • Investment Portfolio Tracker
Loans (Core)	<ul style="list-style-type: none"> • Standardized loan classification, • Portfolio management, • Loan servicing automation, • Credit risk modeling 	<ul style="list-style-type: none"> • Loan Portfolio Management Suite, • Automated Loan Servicing Platform, • Credit Risk Analysis Tool

Proposed Contributions to Fintechs



WAY FORWARD

Collection and recovery processes

1. Custom Ontologies:

- Developing "Collection and Recovery" and "Collateral Management" ontologies tailored for Indian NBFCs and banks.

2. Knowledge Graph Integration:

- Providing a framework that ensures regulatory compliance, risk mitigation, and operational efficiency.

3. Technology Alignment:

- Combining LKGs with advanced Large Language Models (LLMs) for actionable insights.

Team STARAM



Leadership Team



Joseph Pookkatt

Director and Founder of Staram, Joseph has expertise in AI and legal technology. He is a lawyer with 30 years of experience, focusing on legal ontology development in India. Joseph holds prestigious scholarships and fellowships in corporate law, international trade, and legal-tech integration.



Prof Ashutosh Modi

Currently a Professor at IIT Kanpur, he collaborates with Staram in NLP, ML, and AI. Past work at Disney Research in various locations focused on affective computing and NLU. He earned his Ph.D. from Saarland University in Germany, with collaborations across departments.



Surya Prakash B S

Director and Founder of Staram, dedicated to enhancing operational efficiency. Additionally, serving as Programme Director at Daksh, promoting transformation within the legal system in India. Possesses extensive experience in legal research, social systems, and institutional roles, complemented by a background in taxation, finance, & law.

Technical Team

Vikas Pal

A **senior software engineer** with 5 years of experience in developing highly interactive, canvas-based applications using JavaScript.

Anmol Deep, Software Engineer

A **Software Engineer** with experience in developing an agent to calculate MACT case compensation, digitizing Indian government gazettes using Google's Document AI OCR, and employing spaCy for detecting and masking non-English text.

Bharati Banerjee, Legal Editor

A Legal Content Editor with over 20 years of experience in producing successful online legal content, managing legal products from inception to completion, with core skills in research, analysis, advocacy, and project management.

Achal Singh, Data Manager

A Data Manager with 24 years of experience in the Indian legal database domain including legal research, database management, and legal information systems.

Rajagopalan Painei, Data Manager

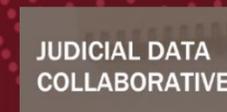
A **Data Manager** with 20 years of experience in legal data management; developing data governance processes, and optimizing workflows.

Hiral Samani

A **project manager** with 4 years of experience in handling projects, timelines, budgets, resource management & stakeholder management.

Antara Das

An **ML Engineer** with 1+ year of R&D experience in NLP, Data Mining, and AI, holding an MTech from IIIT Delhi.



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