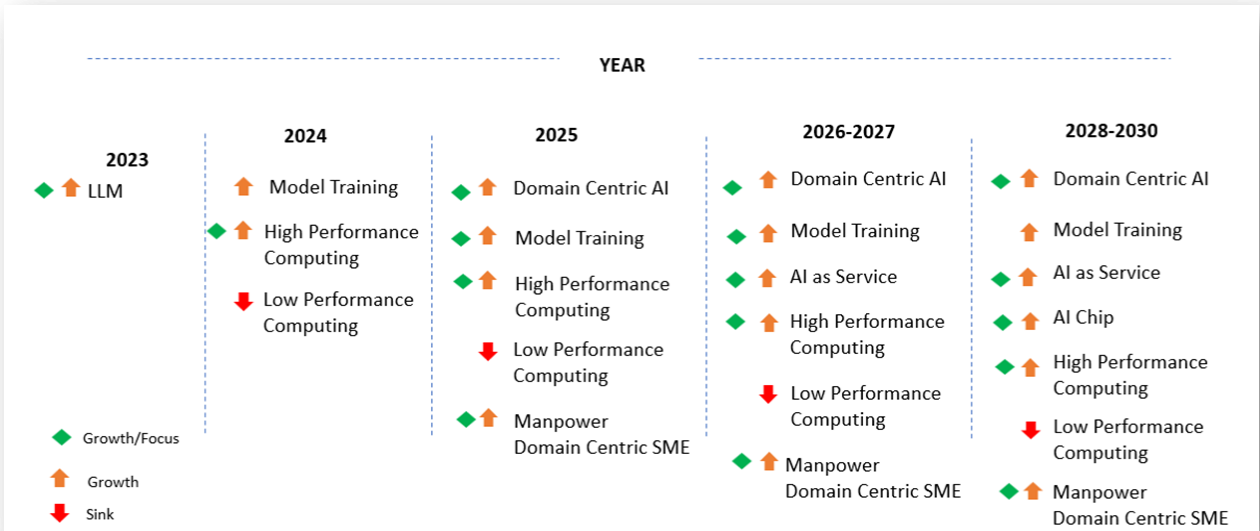**Forecasting AI/Generative AI/LLM/Domain Centric AI: An Analytical Journey through Growth Strategies (2024-2030)**

2023	2024	2025	2026-2027	2027	2028-2030
Year 2023: Pioneering Generative AI LLM • Generative AI LLM takes center stage. • Intense competition for freshly trained LLM models. • Key Players: OpenAI (GPT3, GPT4), Google (Gemini), Amazon (Olympus), Microsoft + Meta (LLaMA-2).	**Year 2024: Trajectory of Aggressive Growth** • Focus on meticulous training of LLM models with expansive parameters. • Success determined by harnessing extensive model training.	**Year 2025: Unveiling Domain-Centric AI and AI as a Service** • Evolution towards domain-centric AI, high-performance computing, and AI as a service. • Shift from LLM to domain-centric models for tailored and cost-effective solutions. • Growing demand for AI model training met with increased adoption of high-performance computing.	**Years 2026-2027: Rise of Domain-Centric AI and AI as a Service** • Companies invest in domain-centric AI models across various industries. • Demand for training hardware, manpower, and monetization through AI as a Service. • Winners: Infrastructure, domain AI, and manpower providers.	**Years 2027-Onwards: Supercomputing Power and High-Performance AI Chips** Harnessing supercomputing power for AI model training. Crafting high-performance AI chips for self-sufficiency. Strategic leap accelerates innovation and efficiency.	**Years 2028-2030: Mega Players' Dominance and Domain-Centric Subject Models** • Mega players leverage aggressive hardware infrastructure. • Winners offer advanced training capabilities at a lower cost and faster speed. • Evolution towards specialized Domain-Centric Subject Models. • User-centric customization and adaptability drive success.
Winner : LLM AI companies like OpenAI, Microsoft , Google and AWS	**Winner :** LLM AI companies like Microsoft , Google and AWS	**Winner :** LLM AI companies like Microsoft , Google and AWS **Manpower Companies**	**Winner :** Domain Centric Companies Domain centric AI creator	**Winner :** Chip manufacturer and Chip creator	**Winner :** High performance computing companies Microsoft , Google and AWS
	Upcoming Players: May be IBM	**Upcoming Players:** May be IBM and HP by leveraging High performance computing	**Upcoming Players: TESLA,APPLE SIMENS etc.** TESLA and SIMENS may come up with domain centric AI .TESLA for clean energy and SIMENS for manufacturing	**Upcoming Players : HP,IBM , Qualcomm & Apple** Leverage AI Chip capabilities	**Upcoming Players : HP , IBM**

YEAR

2023
◆⬆ LLM

2024
⬆ Model Training
◆⬆ High Performance Computing
⬇ Low Performance Computing

2025
◆⬆ Domain Centric AI
◆⬆ Model Training
◆⬆ High Performance Computing
⬇ Low Performance Computing
◆⬆ Manpower Domain Centric SME

2026-2027
◆⬆ Domain Centric AI
◆⬆ Model Training
◆⬆ AI as Service
◆⬆ High Performance Computing
⬇ Low Performance Computing
◆⬆ Manpower Domain Centric SME

2028-2030
◆⬆ Domain Centric AI
◆⬆ Model Training
◆⬆ AI as Service
◆⬆ AI Chip
◆⬆ High Performance Computing
⬇ Low Performance Computing
◆⬆ Manpower Domain Centric SME

◆ Growth/Focus
⬆ Growth
⬇ Sink

YEAR 2023

Year 2023: Pioneering Generative AI LLM

In 2023, Generative AI LLM (Large Language Models) took center stage, marking a pivotal year for advancements in this field. Various companies engaged in intense competition to unveil freshly trained LLM models, showcasing a race to push the boundaries of language generation technology.

OpenAI: GPT3 (175 Billion Parameters), GPT4 more than 1.7 Trillion parameters

Google: Gemini and its more powerful and it has been trained more parameters than GPT4

Amazon: Olympus trained with 2 trillion parameters and a versatile powerful LLM model

Microsoft + Meta: LLaMA (**Large Language Model Meta AI**) On **July 18, 2023**, **Meta** and **Microsoft** jointly announced the **LLaMA-2** model, which is the next generation of the **LLaMA** series.Trained with 70 billion parameters

Conclusion 2023: *Major Year for Generative AI LLM & Companies are competing to come up with newly trained LLM Model*

- Generative AI LLM takes center stage.
- Intense competition for freshly trained LLM models.
- Key Players: OpenAI (GPT3, GPT4), Google (Gemini), Amazon (Olympus), Microsoft + Meta (LLaMA-2).

YEAR 2024

Trajectory of Aggressive Growth

The trajectory of Large Language Models (LLMs) points towards sustained and aggressive growth, defining a landscape where success hinges on the meticulous training of models with an expansive number of parameters. In this dynamic environment, the winners emerge as those who adeptly harness the power of extensive model training.

- Focus on meticulous training of LLM models with expansive parameters.
- Success is determined by harnessing extensive model training.

YEAR 2025

Unveiling the Potential: Domain-Centric AI, High-Performance Computing, and the Rise of AI as a Service

- **Evolution of AI Landscape:**

  - Future trends in AI are centered around domain-centric AI, high-performance computing, and the growing accessibility of AI as a service.

- **Shift towards Domain-Centric AI:**

  - Companies are recognizing the limitations of Large Language Models (LLMs) in terms of parameter training and costs, leading to a shift towards domain-centric AI models.

- **Tailored Solutions and Cost-Effectiveness:**

  - Domain-centric AI models are designed to address specific industry needs, providing a more focused and cost-effective alternative.

- **Meeting the Demand for AI Model Training:**

  - The surge in demand for AI model training, driven by industries acknowledging AI's transformative potential, is being met with an increased adoption of high-performance computing.

- **Symbiotic Reshaping of AI Landscape:**

  - The symbiotic relationship between domain-centric AI, high-performance computing, and AI as a service is poised to reshape the AI landscape.

- **Unlocking New Possibilities:**

  - This transformative journey is not just about overcoming limitations but unlocking new possibilities, creating a future where innovative technology is accessible and tailored to specific industry needs.

- **Catalyst of High-Performance Computing:**

  - The demand for high-performance computing is not just a consequence but a catalyst, propelling us into a realm where innovation knows no bounds.

Conclusion 2025 :

- The convergence of domain-centric solutions, high-performance computing, and AI as a service signals a new era in artificial intelligence.

 - This transformative journey underscores the dynamic interplay of technologies, offering not just solutions to challenges but unprecedented opportunities for growth, collaboration, and societal impact.

- As industries navigate this evolving landscape, the future of AI is characterized by tailored solutions, accessibility, and the boundless potential of innovation. Welcome to an era where the power of AI is harnessed and customized, shaping a future where cutting-edge technology meets the unique demands of diverse industries.

- Evolution towards domain-centric AI, high-performance computing, and AI as a service.
- Shift from LLM to domain-centric models for tailored and cost-effective solutions.
- Growing demand for AI model training met with increased adoption of high-performance computing.

YEAR 2026 -2027

Rise of Domain-Centric AI and AI as a Service

- **Shift to Domain-Centric AI (2026):**

 - In 2026, companies are increasingly investing in domain-centric AI models. Examples domains, Finance, Defence, Manufacturing, Clean energy, image processing, Retail, and Insurance, etc. domains see a surge in companies creating their tailored AI models.

- **Demand for Training Hardware and Manpower:**

 - This trend results in a growing demand for training hardware as well as skilled professionals in domain-centric functions. Subject matter experts become crucial to guide AI developers' inefficient model training.

- **Monetization and AI as a Service (AIaaS):**

 - Companies are inclined to monetize their domain-centric AI models, leading to a rise in demand for AI as a Service. The "pay as you go" model gains prominence, benefiting major players like **Microsoft, Google, and AWS etc.,** leveraging their underlying infrastructure.

- **Infrastructure, Domain AI, and Manpower Providers:**

- Infrastructure companies providing the necessary IT backbone, domain AI companies crafting specialized models, and manpower providers offering subject matter experts are the key winners.

Conclusion:

- **Winning in the AI Landscape:**

 - The winners in this evolving landscape are infrastructure providers, domain-centric AI companies, and those facilitating the availability of subject matter expertise. The synergy between efficient infrastructure, specialized AI models, and skilled manpower is crucial for success.

- **Monetization and Mass Availability:**

 - Monetizing domain-centric AI models is intrinsically linked to their mass availability through AI as a Service. Major players with robust infrastructure, like Microsoft, Google, and AWS, stand to gain substantially from this trend.

- **Collaborative Ecosystem:**

 - The collaborative ecosystem of infrastructure providers, domain AI specialists, and manpower facilitators signifies a future where the power of AI is harnessed efficiently and made accessible to a broad audience, creating a win-win scenario for all stakeholders.

- Companies invest in domain-centric AI models across various industries.
- Demand for training hardware, manpower, and monetization through AI as a Service.
- Winners: Infrastructure, domain AI, and manpower providers.

YEAR 2027 -Onwards:

Supercomputing Power and High-Performance AI Chips

Super Computing Power: Unlocking Supercomputing Power: Revolutionizing Model Training

In the realm of high-performance computing, companies are poised to harness the extraordinary capabilities of supercomputing for AI model training. The emergence of **Super Computing as a Service (ScaaS)** is set to redefine the speed at which domain-centric AI model creators can train their models.

In this landscape, cost efficiency becomes a critical factor in determining the ultimate winner. Companies that can provide high-performance infrastructure with minimal costs stand to gain a significant advantage. Major players like HP, IBM, Microsoft, and Google are well-positioned to reap the benefits of their substantial supercomputing power.

This strategic leap not only accelerates model training but also opens new frontiers for innovation and efficiency. The convergence of domain-centric AI and supercomputing services marks a transformative era where computational prowess becomes a key differentiator in the competitive landscape.

- Harnessing supercomputing power for AI model training.
- Crafting high-performance AI chips for self-sufficiency.
- Strategic leap accelerates innovation and efficiency.

Year 2025 - 2027 -Onwards

Dominating the AI Landscape: High-Performance AI Chips

In the race to wield the unparalleled power of supercomputing, companies are steering towards crafting their own high-performance AI chips. Notable examples include Google's TPUs and Microsoft's proprietary AI chip. The companies that successfully develop and possess these high-performance chips are poised to emerge as the ultimate winners in the AI landscape.

This strategic move not only signifies a shift towards self-sufficiency in computational capabilities but also positions these companies to monetize and reap substantial profits. The possession of high-performance AI chips becomes a decisive factor, establishing a new echelon of competitiveness and innovation in the ever-evolving realm of artificial intelligence.

YEAR 2028 -2030

Mega Players' Dominance and Domain-Centric Subject Models

- **Mega Players' Dominance (2028-2030):**

 - In the upcoming years, mega players like Microsoft, AWS, and Google are poised to dominate as they leverage their aggressive hardware infrastructure. The surge in companies adopting domain-centric AI models intensifies the competition.

- **Winning Factors for Mega Players:**

- The key differentiator among mega players lies in their ability to offer advanced training capabilities at a lower cost and faster speed. The winners will be those providing dynamic analytics through AI as a Service, combining Large Language Models (LLMs) with domain-centric models. Also, provide **AI as a Service (AIaaS)** capabilities pay-as-you-go model using the infrastructure

- **Evolution towards Domain-Centric Subject Models:**

 - A shift is anticipated from domain-centric AI models to more specialized Domain-Centric Subject Models. For instance, in finance, robust models could address specific functionalities like money laundering, market analysis, and predictions. Similarly, healthcare models could focus on particular diseases.

- **Smart Pre-Trained Analytics:**

 - The evolution includes the capability to generate pre-trained analytics, allowing models to intelligently provide common analyses while leaving room for user customization. This marks a transition towards more user-friendly and adaptable AI solutions.

- Mega players leverage aggressive hardware infrastructure.
- Winners offer advanced training capabilities at a lower cost and faster speed.
- Evolution towards specialized Domain-Centric Subject Models.
- User-centric customization and adaptability drive success.

Conclusion:

- **Winners' Profile:**

 - The winning companies will be those equipped with high computing power, including supercomputing capabilities. They will excel in providing cost-effective and rapid AI model training, seamlessly integrating models with domain-centric and subject-specific capabilities.

- **Strategic Integration:**

 - The strategic integration of cutting-edge technologies, efficient training processes, and the dynamic evolution from domain-centric to subject-specific models will define the success of mega players in the AI landscape.

- **User-Centric Customization:**

- The future lies in user-centric customization, where AI models not only offer intelligent default analyses but also empower users to tailor solutions to their unique needs.

- **Adaptability and Innovation:**

  - Adaptability to evolving trends, innovation in model training, and a commitment to user-centric solutions will be paramount for companies seeking to emerge as winners in the dynamic AI landscape of 2028-2030.

Overall Summary (2023-2030): Navigating the AI Evolution

Year 2023: Pioneering Generative AI LLM

- Generative AI LLM takes center stage.

- Intense competition for freshly trained LLM models.

- Key Players: OpenAI (GPT3, GPT4), Google (Gemini), Amazon (Olympus), Microsoft + Meta (LLaMA-2).

Year 2024: Trajectory of Aggressive Growth

- Focus on meticulous training of LLM models with expansive parameters.

- Success determined by harnessing extensive model training.

Year 2025: Unveiling Domain-Centric AI and AI as a Service

- Evolution towards domain-centric AI, high-performance computing, and AI as a service.

- Shift from LLM to domain-centric models for tailored and cost-effective solutions.

- Growing demand for AI model training met with increased adoption of high-performance computing.

Years 2026-2027: Rise of Domain-Centric AI and AI as a Service

- Companies invest in domain-centric AI models across various industries.

- Demand for training hardware, manpower, and monetization through AI as a Service.

- Winners: Infrastructure, domain AI, and manpower providers.

Years 2027-Onwards: Supercomputing Power and High-Performance AI Chips

- Harnessing supercomputing power for AI model training.

- Crafting high-performance AI chips for self-sufficiency.

- Strategic leap accelerates innovation and efficiency.

Years 2028-2030: Mega Players' Dominance and Domain-Centric Subject Models

- Mega players leverage aggressive hardware infrastructure.

- Winners offer advanced training capabilities at a lower cost and faster speed.

- Evolution towards specialized Domain-Centric Subject Models.

- User-centric customization and adaptability drive success.

Conclusion (2023-2030): Shaping the Future of AI

- The journey unfolds from LLM to domain-centric and subject-specific models.

- Collaboration between infrastructure providers, domain AI specialists, and manpower facilitators.

- User-friendly, adaptable AI solutions mark the future.

- Winners excel in high computing power, strategic integration, and user-centric innovation.

 The dynamic evolution of AI, from generative models to domain-centric and subject-specific advancements, signifies an era of unprecedented opportunities and collaboration. The winners emerge as those who navigate the complexities, innovate with adaptability, and provide cutting-edge solutions tailored to the unique demands of diverse industries. Welcome to the transformative future of AI.