# Concept Brief
Project iGaia Spectrum

Introduction

This is an invitation to **intelligent investors** who embrace original thinking and disruptive technologies. Below is how a positive impact can be made to the World in the areas of retail, design, manufacturing and finance through technical innovations.

Background

Global Economy moved to a new era in 2020. COVID-19 catalyzed paradigm shifts in well-being, consumer sentiments, retail and online shopping, supply-chains, manufacturing and logistics. A rethinking of Ethics, Consumerism, Sustainability and Global Trade is inevitable as millions struggle. Project iGaia Spectrum has been created to meet the challenges of global inequality today and beyond.

Product Overview

iGaia Spectrum is a unique Software-as-a-Service (SaaS) Solution for Consumer Product Design, Manufacturing, Global Retail and Distribution. Products are designed, built and sold using a single system - **iGaia Spectrum,** which is simple, mobile friendly, fast and efficient. Project financing are conducted with Smart Contracts and Blockchain technologies. Global investors of all sizes can use Spectrum to help turning entrepreneurs' dreams to realities and to be rewarded handsomely for the common good.
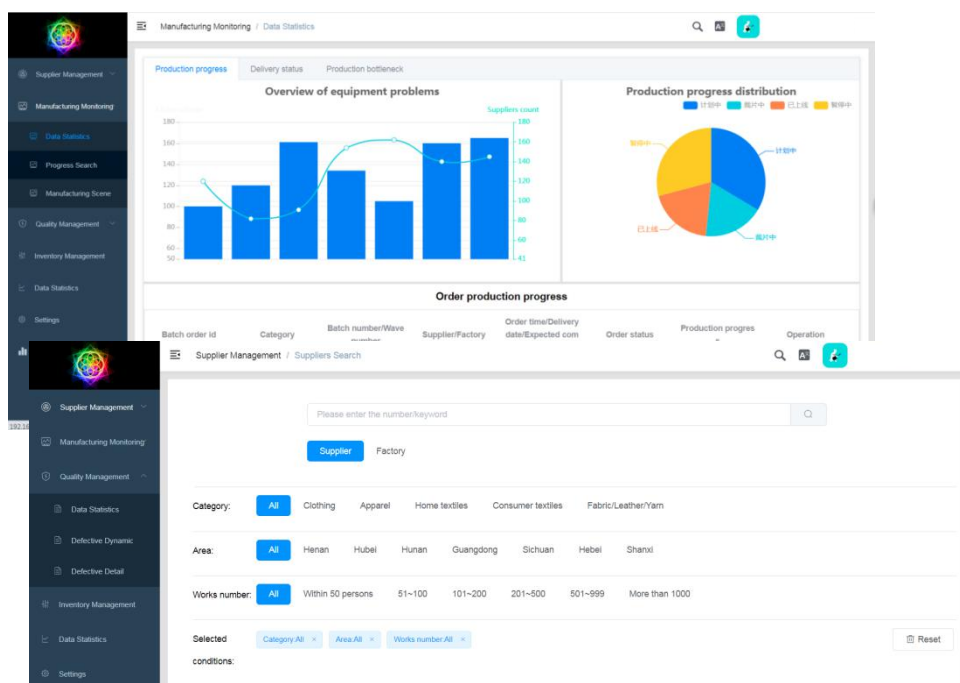
High Level Architecture

iGaia Spectrum is composed of three layers: **Infrastructure, Business Service** and **User Interface**.
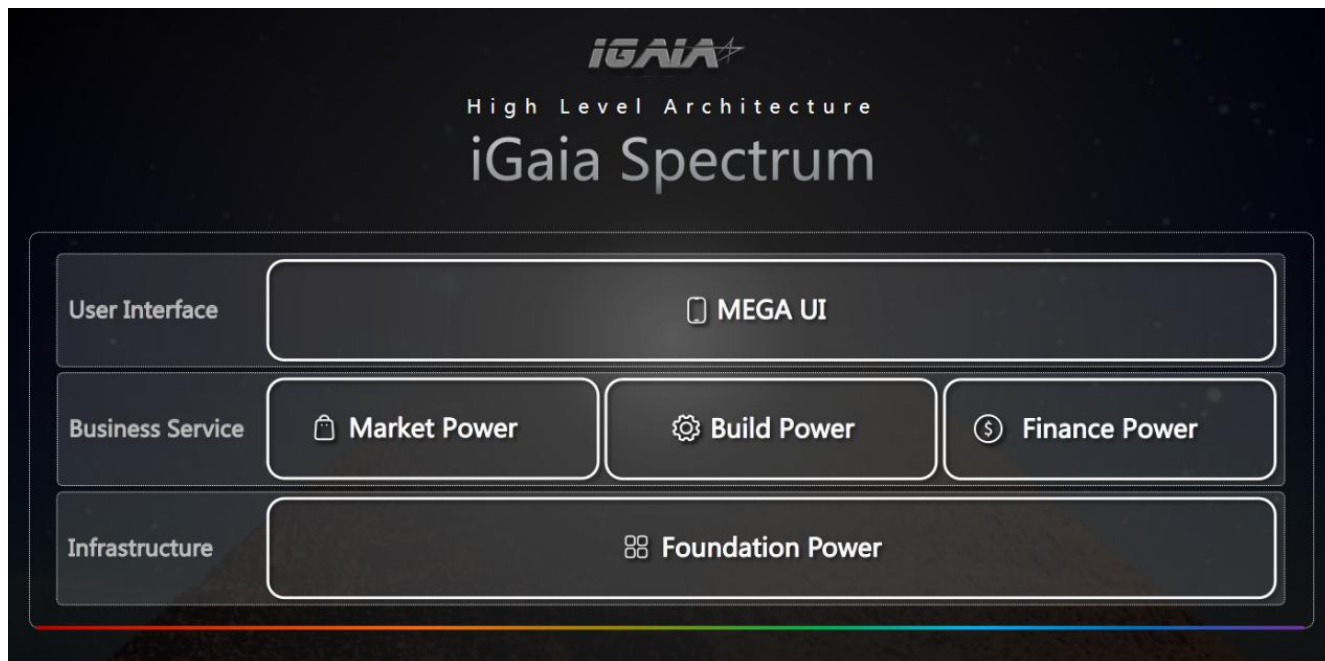
Infrastructure Layer

The main tenant of the **Infrastructure Layer** is the **Foundation Power**, in which numerous infrastructure and utility services are managed and exposed to layers above. Capabilities such as Artificial Intelligence, DeFi Blockchain, Middleware, Storage, Networks, Security, NoSQL and RDBMS are a few components of this **Foundation Power**.

Business Service Layer

The **Business Service Layer** is where domain specific application logic is contained and executed. Three main pillars exist within this layer, **Market Power**, **Build Power and Finance Power.**

The **Market Power** which is responsible for maintaining features such as Online Retail Store, Distribution Network and Payment. It allows global consumers to discover products from an online store and order goods directly from designers and/or manufactures. In doing so, it removes middleman and saves significant costs for designers and manufacturers.

The **Build Power** manages and monitors logistics, inventories, materials, manufacturing processes and product life-cycles. Through iGaia's advanced system integration capabilities upholding SOA/Micro-services principles, data is exchanged freely and efficiently between specialized systems, such as CAD, ERP, MES and WMS.

The **Finance Power** supplies liquidity and financial investments to stakeholders during the design and build phases. Global investors with different levels of risk profiles can research and invest in proven products. Thanks Smart Contracts and DeFi Blockchain, lending costs offer to designers and manufactures can be reduced to a fraction of what traditional institutions could provide.

User Interface Layer

The **User Interface Layer** hosts the **MEGA UI**, which stands for **Multi-Experience Global Access User Interface**.

It has been observed that users from the Western World are accustomed to mobile apps running on native iOS and Android Operating Systems, while many countries are seeing HTML5-based mobile applications becoming popular. Yet Chinese and Asian

consumers are comfortable using Mini Apps running within either WeChat and AliPay Mobile Apps frameworks.To cater for the needs and expectations of a diverse global audience, iGaia provides a rich set of User Interface options via **MEGA UI**.

iGaia made its software Open-Source to enable developers around the World to seamlessly integrate with **iGaia Spectrum** for local users. An early preview version of the project source code can be downloaded on **GitHub**.

Business Architecture

The Business Architecture explains how the three pillars of the High-level Architecture, namely **Market Power, Build Power and Finance Power** are related to the three Business Domains: **Market Domain, Design & Build Domain and Finance Domain**.

iGaia Business Architecture
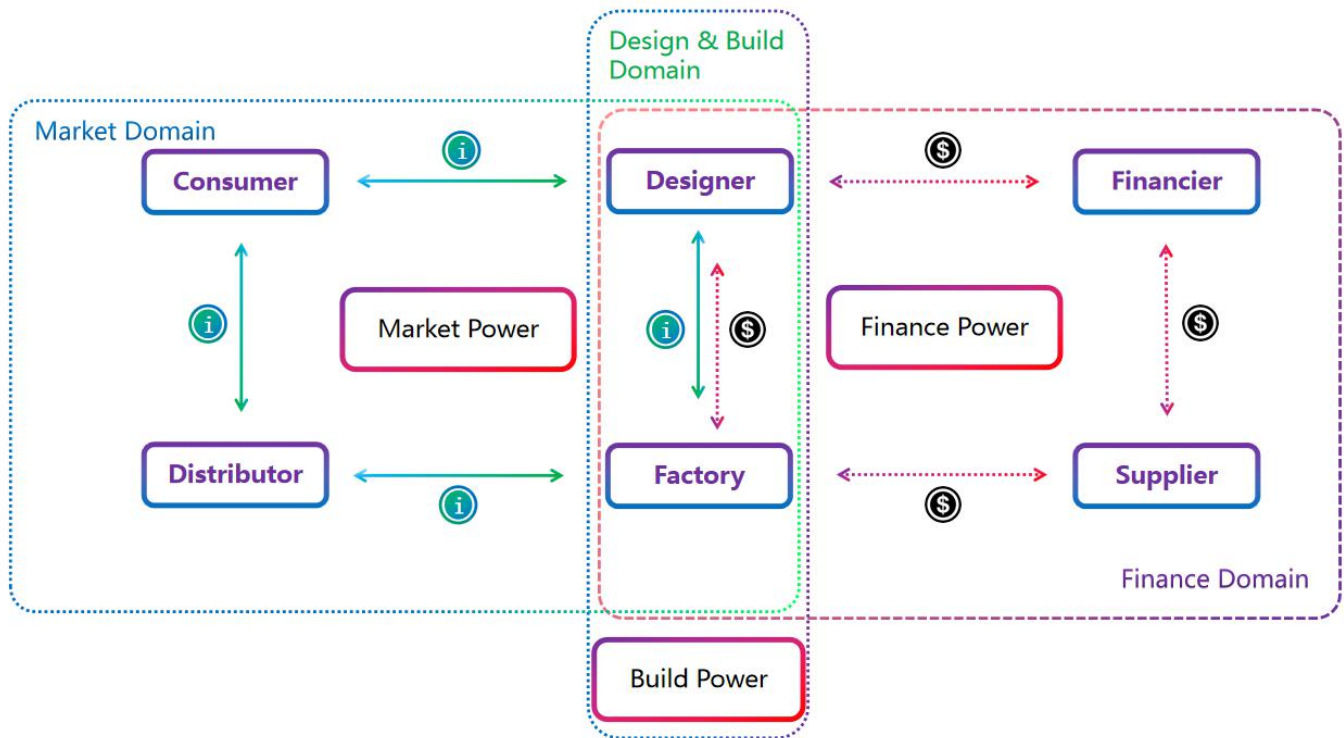
Market Domain

A designer comes up with a brilliant idea to design a new product, and back it up with her/his courage, skill-set, insight, intuition and track-record. She/he then creates 3D rendition(s), 2D drawing(s) or video clip(s) about the product and set a price. The artwork(s) are uploaded to **Market Power** for consumers to explore and place pre-order requests against. The meta-data that describes the natures of the product, such as blueprints, design diagrams, color options and other Bill of Materials(BOM) data are stored on **Market Power**.

Pre-order payments collected from consumers are stored on distributed and secure locations within a Decentralized Financial(DeFi) Blockchain Network. Once the level of accumulated fund exceeds the minimum threshold level as defined by a Smart Contract and business rules, the designer is notified by **Market Power** to proceed with manufacturing. Her/his requirements are automatically with a list of factories who specialized in product categories that are most relevant to the new design specs. Once a factory is selected by the designer, the meta-data is automatically sent to the chosen factory, which fulfill the order according to a predefined deadline and quality matrix as laid out within the same Smart Contract. Finished products are sent to the pre-order consumers and the life-cycle is completed. The Smart Contract will automatically distribute funds to both designer and factory.

Although designers are great at creative works, most of them still need support on marketing and sales. The **Market Power** enables designers to upload and advertise products to consumers without much effort. The product information can be shared across a spectrum of User Interfaces and devices, such as Android, iOS, HTML5, Facebook, Telegram, WeChat and Tik Tok. This maximizes their reach to potential audience on the global market. Feedback from consumers encourage designers and entrepreneurs to design better products.

Design & Build Domain

With **Build Power** acting as a conduit, designer can select from a list of factories according to their reviews, capabilities, availabilities and Quality of Service. Order details, product meta-data, CAD diagrams and blueprints can be exchanged freely and securely between designers and factories. Order progresses are tracked in real time and delays and unexpected events will be mitigated.

Finance Domain

Traditionally, Designers require significant initial capital to design, prototype, manufacture, market and distribute a new product. External investment from an institution or investor is commonly beyond reach.

Finance Power significantly improves the *funding deficiency problem* by inviting global investors to participate in the Commercialization phase of market-proven products. Real-time analytical data sets including but not limited to popularity indicators, risk indicators, trend indicators are collected by **Finance Power** to calculate risk-and-reward ratio and potential Return on Investment (ROI) of each project. Informed investments or otherwise smart money are directed to fund Commercialization Projects. DeFi-backed Smart Contracts play a pivotal role to govern and conduct contractual rules as laid out earlier. They automatically direct flows of global capital to designers, suppliers, factories and related parties.

Independent Designer Brands

Below are some designer brands that iGaia has a partnership with.
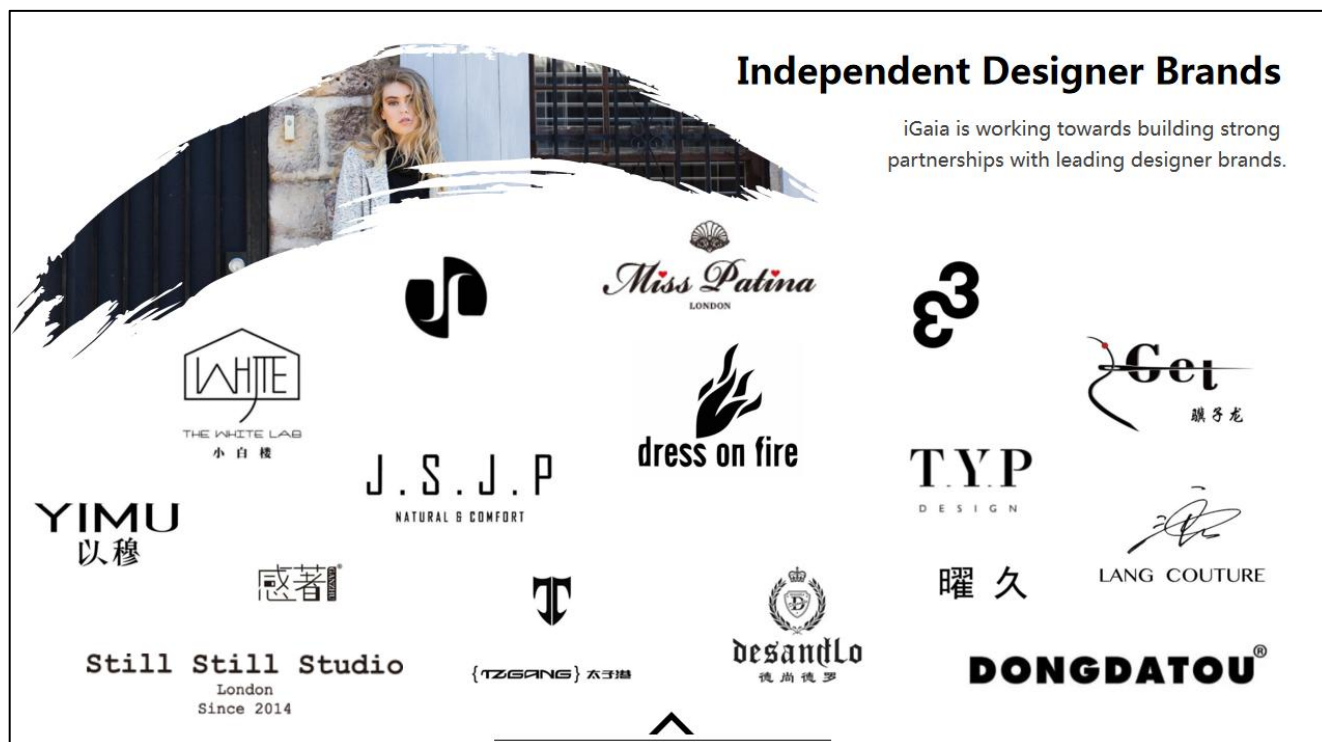
iGaia Team

Over the past decade, members of iGaia team designed and developed Enterprise-grade Solutions for Fortune 500 Companies and Government Agencies across the Asia-Pacific Region. As they traveled around the World and learned from various cultures, an increasing awareness of global economic unbalance and the urge to empower global SMEs and entrepreneurs continue to rise. The members felt an obligation to *empower millions of under-resourced entrepreneurs and companies* by improving their access to local and global markets and investments. Along with their strong drives to succeed and passions to make the World a better place, the iGaia team brought their domain expertise into this venture from various disciplines. Those include Cloud, Artificial Intelligence, Cryptography, Internet of Things (IoT), Big Data, Blockchain, Fashion and Design, Finance, Sales, Marketing, Logistics and Manufacturing.

iGaia Team

CEO PHIL JIN	

CDO JARROD WOOD	CIO ALEX LUCAS	GM SABRINA WANG	CMO SHAUN LIEN	COO JACK LIANG
DEVELOPMENT	DEVOPS	PMO	MARKETING	OPERATIONS
AUTOMATION	CLOUD	PR	SALES	SUPPORT
ARTIFICIAL INTELLIGENCE	BLOCKCHAIN	GR		

Collective Knowledge   Best Practice

Achievements

Selected by China AI Town

China Artificial Intelligence Town is one of the leading National Innovation Centers in China. In April 2020, the iGaia Team passed multiple stages of project review and assessment to be invited to enrol at China AI Town.

Announcement URL:
https://mp.weixin.qq.com/s/nvnuXwzucLIbibKJ4F4hgg

Top 12 in National Competition

The '2nd Industrial App Development and Application Innovation Competition' is one of the top Industry 4.0 competitions in China. After months of fierce competition, team iGaia stood out from 217 teams to secure a final place on the National Top 12 List.

Announcement URL:
https://j.mp/3gnNo2w

Member of CIMSIC

On Sep 2020, iGaia became a certified member of Chinese Intelligent Manufacturing System Integrator Consortium, which acknowledged iGaia for demonstrating its capabilities and excellency in the space of Intelligent Manufacturing.

Member List URL:
http://www.cimsic.com/help/6

Contributor of CNS

In 2019, iGaia was selected as a contributor by the Standards Press of China, to co-auther one of the most important National Standards 'Intelligent Manufacturing System Architecture', which is responsible for defining the overarching Architecture for hundreds of National Standards under its umbralla.

Contact

Leave a message with us to discuss further.

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