EMPOWERING THE DIGITAL ECONOMY
Preface

The world has been preparing for a global Digital Economy for more than a quarter century. That’s how long the Internet has been in widespread use. Yet by itself, the Internet has been unable to deliver the powerful economic boost the world now needs.

Today, the Digital Economy remains elusive for one simple reason — it lacks the engine to power it. Consider this. The Internet can be used to deliver email, connect consumers with products, and even make phone calls, but it has not conquered what drives the global economy — the business to business (B2B) marketplace. In fact, the global B2B marketplace now totals approximately USD 140 trillion per year according to the Visa Commercial Consumption Expenditure Index report and is still being conducted in the old-fashioned way, using manual processes. At the core of the B2B marketplace is trade, which depends on four key pillars — commerce, finance, insurance, and logistics, with logistics being the weakest link due to its inefficiency caused by high fragmentation and manual operations. This is mainly due to the logistics industry making vertical investments to enhance what is, in fact, a horizontal process.

The fact that logistics is the weakest link in global trade is a fundamental issue because it is also the foundation of trade that shapes the flow of goods through the global value chains, connecting our world. Once we create efficient digital logistics using a Digital Economy Platform (DEP), we can increase operating efficiencies, thereby decreasing trade and operating costs. In addition, the DEP provides the required dynamically validated information to enhance digitally the efficiencies of the commerce, finance, and insurance industries as well. Hence,
the DEP adds up to a super charged engine propelling world trade, consequently the B2B marketplace, and ultimately the global economy, thus achieving sustainable economic growth today demanded by all nations.

GCEL has conducted more than fifteen years of R&D towards the deployment of the Digital Economy and the leaders of the biggest economies in the world have recently adopted the Digital Economy as a common element of their global economic policy recommendations in the 2015 G20 final communiqué. In the lingering shadows of the 2008 Global Financial Crisis (GFC), these leaders are desperately looking for the Digital Economy as a solution to our economic malaise — and are hoping to seize it now.
At the very heart of this effort lies the E-Hub of the World, which builds and operates the DEP. In turn, the DEP drives the new digital world powering e-Commerce, e-Finance, e-Insurance and e-Logistics digital services supporting billions of B2B participants around the globe, thereby delivering economic benefits to every corner of the planet. Such responsibility requires an extraordinary team to tend it, a team with shared strength, responsibility, and resolve. We call this team the “E-Hub of the World Core Triangle” and it has, as the name suggests, three critical entities:

- It has a leading **Academic Institution** that brings together world-class academic minds to build a knowledge center that nurtures bursts of technological innovations to continuously enhance the capabilities of the DEP and identify policies that can accelerate the adoption of the Digital Economy.
- It has a visionary **Public Entity** that provides a world-class location and ensures the implementation of policies that create and sustain the best environment for the E-Hub of the World to thrive under the protection of the international community.
- It has an innovative leading edge global **Technology Firm** with the best technological operations to ensure fail-safe design, development, hosting, and enhancement of the DEP.

Together this team becomes the guardian of the DEP, the engine that drives the Digital Economy. This E-Hub Core Triangle team works closely with the world’s top technology, commerce, finance, and insurance firms, hand-picked by GCEL using a transparent equal opportunity process, who act as “Gateways” to deploy the DEP to the real economy participants worldwide. Together, members of this high powered innovative team will change the world by triggering the emergence of the Digital Economy, securing our economic prosperity for all nations now and for generations to come.
# Table of Contents

1. A Call To Innovate  
   1.1 INTRODUCTION  
   1.2 INNOVATION IS THE ANSWER  
   1.3 THE INNOVATIONS NEEDED TO TRIGGER THE GLOBAL DIGITAL ECONOMY  

2. Triggering The Digital Economy  
   2.1 INTRODUCTION  
   2.2 GLOBAL STRUCTURAL FORMULA  
   2.3 GLOBAL MARKET ACCEPTANCE OF GCEL’S INNOVATIONS  
   2.4 A DIGITAL ECONOMY PLATFORM  
   2.5 AXIOMS OF THE 5Cs – THE GLOBAL DATA SECURITY STANDARD (GDSS)  
   2.6 AN INNOVATIVE BUSINESS MODEL  
   2.7 RAPIDLY DEPLOYED GLOBAL ECONOMIC BENEFITS  
   2.8 E-HUB OF THE WORLD CORE TRIANGLE
3. The E-Hub Core Triangle – Powering The Digital Economy

3.1 INTRODUCTION TO THE E-HUB CORE TRIANGLE
3.2 WHAT IS THE E-HUB CORE TRIANGLE?
3.3 E-HUB OWNERSHIP AND GOVERNANCE
3.4 E-HUB CORE TRIANGLE PARTNER REQUIREMENTS
3.5 E-HUB CORE TRIANGLE PARTNER RESPONSIBILITIES
3.6 E-HUB CORE TRIANGLE VALUE PROPOSITION
3.7 E-HUB CORE TRIANGLE OPERATIONS

4. Conclusions

CONCLUSION
BIBLIOGRAPHY
GLOSSARY OF TERMS
1. A Call to Innovate

1.1 Introduction

1.2 Innovation is the Answer

1.3 The Innovations Needed to Trigger the Global Digital Economy
1.1 Introduction

Economic growth is tepid, at best, in many parts of the world as the shadows of the Global Financial Crisis (GFC) linger. Unemployment is still a major concern in many quarters around the world, fueling uneasiness across the globe — starting from the streets of the Arab Spring to the streets of Athens. Protectionist measures continue to gain ground while the Trade Facilitation Agreement falters. In all, fears of another recession mount, even as memories are still fresh from the last one.

Our world needs a powerful economic boost and no matter how much it is needed, this boost will not be delivered through traditional measures including fiscal, monetary, and trade policies. The benefits from these policies have now been exhausted. Since the GFC, governments around the world have supplied the biggest dose of fiscal stimulus the world has seen since the Great Depression; yet economic weakness persists. Governments, central banks, and regulatory authorities have provided enormous bailouts to financial institutions, first to redress the housing crisis and now to solve the sovereign debt crisis. However, debt restructuring and financial engineering simply cannot supply the solution to address our current economic malaise; only strong, sustained economic growth can achieve it. The question remains: How can we trigger sustainable economic growth for all?

The truth is, to achieve economic growth, we can no longer ignore the powerful demographic trends that command a new economic order. Consider this. In high-income countries where fifteen percent of the world’s population lives, birth rates are low; the population is aging yet salaries remain high. This is an efficient and productive community challenged with low market demand. Meanwhile, in mid- and low-
income countries birth rates are high, populations are young, but salaries are merely 20% of those in high-income countries. This is a highly populated community challenged with low buying power. The only and the strongest option for the high-income countries is to build the buying power of the mid- and low-income countries, thus creating a vast new market for their products and services. Therefore, the only and the strongest option for the mid- and low-income countries is to commit to business excellence and transparency to achieve operational efficiency, thereby attracting national and international investments, resulting in increased buying power.

No matter how big the economic challenges may now seem, the high-, mid-, and low-income countries still have enormous strengths waiting to be joined and energized. A tangible innovation that can join these significant global demographic strengths will enlarge the global economic “pie” instead of nations competing on the same one that we have today.

1.2 Innovation is the Answer

History proves that innovation is the answer, over and over again. The dawn of computers and the Internet revitalized manufacturing productivity and launched the modern services sector. Packing computing power into ever-smaller desktops and handheld devices of every business owner sparked an entrepreneurial era unlike any other in history. The Internet connected the world — first through email, then through social media. Together, these inventions revolutionized B2C commerce by putting products in the hands of consumers through the click of a mouse. Yet, the B2B marketplace has not fully harnessed what technology makes possible today.
Whereas, one of the most powerful innovations of the past half century in the B2B marketplace is often overlooked — the multi-modal cargo container. Malcolm McLean, a North Carolina entrepreneur who started his career with one truck, imagined being able to off load ships far more easily and get products on their way much more swiftly. The steel container was born that allowed products to be transported more efficiently and securely across multiple modes of transportation including ocean, railroad, airplane, and truck seamlessly. This simple innovation profoundly changed our world, connecting us in ways no one ever imagined. The industry that grew up around the steel container — the global logistics industry (GLI) — became the heart of the global economy, fueling several decades of economic growth.

We can all agree that the economy is now globally interconnected. The question is whether it is fully digital. If we look a little deeper, however, we can see that the industry that connected our world, the global logistics industry, took full advantage of the container but is still far from leveraging digital technologies to its fullest capacity.

The very innovative spirit that spawned globalization can do it again by digitizing the global economy, thereby ushering in decades of economic prosperity.

1.3 The Innovations Needed to Trigger the Global Digital Economy

GCEL passionately believes that this global economic prosperity can only be achieved through a series of powerful global innovations, each matched to address the unique challenges of digitizing the global economy in general and the logistics industry’s inefficiencies in particular.
to provide the foundation to trigger the economic growth desperately needed for all the regions of the world.

Based on its years of Research & Development, GCEL has been officially chosen by public and private organizations around the world to lead the HumaWealth programs for empowering the Digital Economy. These GCEL global programs are recognized for defining goals that meet the aspirations of most of the world’s citizens, developing the road map for taking us from the present condition towards the defined goal, providing the required tools to implement the road map, and fostering global consensus. All the foregoing represent the foundation to ensure a successful and rapid delivery of the desperately needed Digital Economy while rebalancing the world economy to provide prosperity to all.

Chapter 2 of this document describes a catalog of innovations by GCEL in multiple tiers to digitize the global economy, B2B marketplace, trade, and logistics industry in seven key dimensions.

First, GCEL’s innovation includes a novel organization structure, the Global Structural Formula (GSF), which involves the participation of all forms of organizations – public, IGOs/NGOs, and private. They all work in concert to capitalize on each organization’s capabilities and jurisdictions. This structure introduces an independent global monitoring mechanism that offsets geopolitical and monopolistic concerns while ensuring rapid global deployment of the global Digital Economy using a network of world-class organizations, providing benefits rapidly to all participants.
Second, GCEL’s innovation involves **securing a global consensus** from a macro, micro, and technology perspective on empowering the Digital Economy.

- **At the macro level**, the innovation focused on securing the policy adoption of the Digital Economy by G20 leaders as well as obtaining MOUs with about 75% of the world’s citizens through their representatives, governments, IGOs and NGOs, ensuring this initiative offsets monopolistic and geopolitical concerns.

- **At the micro level**, so far, 85% of the trade communities in G20 nations have agreed to undertake diagnostic trade surveys as a first step towards deploying the Digital Economy.

- **At the technology level**, GCEL has executed strategic agreements with 26 of the world’s leading technology firms as a first step for these firms to be selected as a part of a global deployment network. These firms have validated the technology solution, realizing that they cannot do it alone and will be able to double their earnings by joining hands.

Third, GCEL’s **Digital Economy Platform** is truly innovative. It provides a Point-to-World horizontal integration environment that removes the fragmentation of the trade processes among the real economy participants. It also transforms the four pillars of trade to a completely new digitally integrated level through 21st century e-Commerce, e-Finance, e-Insurance, and e-Logistics platforms, thus empowering them with limitless possibilities.

Fourth, since trade data is of national security importance and such information is the currency of the future, it must be securely exchanged. Accordingly, GCEL’s innovation – the Axioms of the 5Cs representing the **Global Data Security Standard** – safeguards the data privacy and information security of public and private organizations.
Fifth, GCEL’s innovation also includes a unique business model that ensures the widespread adoption of its DEP by all real economy participants within the global value chains. The DEP will be provided free of cost to the end user and at the same time secures its sustainability through an innovative revenue sharing model.

Sixth, GCEL’s innovation includes a rapid 18 month deployment program called HumaWealth that concurrently delivers comprehensive benefits throughout all regions of the world.

Seventh, finally, the E-Hub of the World organization structure described in Chapter 3 is a unique innovation of GCEL. It ensures that the strengths of public, academic and private organizations are woven together to build, host, and enhance the DEP to its fullest capability based on what technology makes possible today, for uninterrupted use by the real economy participants worldwide under the protection of the community of nations.

Digitization of the B2B marketplace is the 21st century innovation that can reenergize the global economy, similar to what containerization did to global trade several decades ago. Thanks to GCEL’s catalog of innovations that empower the Digital Economy at multiple levels, we finally have the agreed upon road map and validated tools for extricating ourselves from the current economic quagmire to create greater prosperity for all the countries in all regions of the world, now and for generations to come.
## 2. Triggering The Digital Economy

| 2.1 | Introduction |
| 2.2 | Global Structural Formula |
| 2.3 | Global Market Acceptance of GCEL’S Innovations |
| 2.4 | A Digital Economy Platform |
| 2.5 | Axioms of the 5Cs – Global Data Security Standard (GDSS) |
| 2.6 | An Innovative Business Model |
| 2.7 | Rapidly Deployed Global Economic Benefits |
| 2.8 | E-Hub of the World Core Triangle |
2.1 Introduction

Historically, global leaders have been seeking to unleash the power of the Digital Economy, but it remains elusive. Let us analyze this further. The global economy is driven by an annual USD 140 trillion B2B marketplace. At the core of this marketplace is trade, but trade is not yet fully digital. Trade has four key pillars — commerce, finance, insurance, and logistics. Of the four, logistics is the most fragmented and weakest link by far. Hence, empowering the Digital Economy begins with tackling the real reason that trade is inefficient today — a highly fragmented logistics industry still using 20th century tools to transact 21st century trade. Once we address this inefficiency using digital logistics, we can digitally enhance finance, insurance, and commerce as well, where one can match buyers and sellers of products and services in the B2B marketplace with unprecedented precision based on the rich validated data in the Digital Economy.

Thus, the road to the Digital Economy must start with logistics, the industry that orchestrates the flow of goods in our value chains within and across nations. The GLI is massively inefficient because it is highly fragmented, operates mostly in manual environments, and is burdened with compliance requirements across multiple jurisdictions. The airline passenger industry was transformed by four horizontal e-Reservation systems that connected all the airlines globally. However, if technology alone was sufficient to solve logistics inefficiencies, we would have seen the emergence of at least one global e-logistics system by now. GCEL has recognized that a quantum leap of innovation involving more than just technological innovation is needed to spawn a horizontal e-Logistics system.
The much needed quantum leap came from GCEL: Digital Economy services including e-Logistics, e-Commerce, e-Finance, and e-Insurance fall under the Nations Security Solution that can only be provided by a network of carefully orchestrated Public Private Partnerships. The Nations Security Solution (NSS) is developed when comprehensive adoption addressing nations’ interdependent needs is required.

When the need for a global tangible economic solution becomes a must, it is neither the mission nor focus of governments to provide solutions directly to the market place. It is also not acceptable for the private sector, which has earned the world’s trust through its proven capabilities and skills, to monopolize such a solution. The world will simply not accept a solution, developed to address nations’ interdependent needs, to be provided by one country or a few private interests. Such a solution, one that is of vital concern to the security and sovereignty of nations, must be delivered under a true public-private partnership.

The Digital Economy initiative falls under the NSS foundation since it impacts the daily lives of 7 billion people around the world and involves the mother of all industries – the B2B global marketplace projected to reach USD 312 trillion by 2025. Furthermore, it comprises the world’s largest consortium of public and private organizations from 50 countries, and creates tremendous value in excess of USD 8 trillion.

Hence, the GCEL’s catalog of innovations addresses the NSS needs of all the countries in the global economy in addition to maximizing what technology makes possible today. The following sections illustrate each of these innovations that aim squarely at a unique dimension of triggering and empowering the Digital Economy:
Global Structural Formula
Global Market Acceptance
Digital Economy Platform
Axioms of the 5Cs – the Global Data Security Standard
Innovative Business Model
Rapid Deployment of Global Economic Benefits
E-Hub of the World Core Triangle

2.2 Global Structural Formula

The Problem: An incomplete, disjointed effort to empower the Digital Economy

Empowering the Digital Economy is a huge task. The right team is needed to carry out this task successfully and swiftly. In fact, the main reason the Digital Economy has not been fully realized to date is not due to lack of technology. Technology has solved many other societal problems, such as creating the global electronic airline passenger systems referenced later. The real problem in empowering the Digital Economy is the current lack of a synchronized team to guide and deploy the technology effectively and in a way the world will embrace.

Two things are needed to address the inefficiencies in global trade. The first is a formula to identify all the organizational types needed. The second is a strong global team with all of the required and willing players. Both have been elusive to date. All the members of the team to deliver the solution and a well-designed formula to combine them must be in place. The leadership to supply both has been lacking.

Governments alone cannot solve the problem, as much as they want to. The private sector alone cannot solve the problem, even though it has
enormous capability. IGOs/NGOs have the will but not the resources to solve it. What is needed, and what is currently lacking, is a global partnership that can bring together the best of the public, private, and IGO/NGO sectors — all focused on solving this problem. This partnership must be global, agile, neutral, and capable of triggering a tangible economic program.

**The Required Solution:** A formula to unite the best efforts of public, private, and IGO/NGO sectors

A formula to assemble the global team is of paramount importance to ensure that a solution to empower the Digital Economy is delivered to all and maintained effectively by capable global organizations. This formula must begin with the private sector — the hundreds of millions of businesses around the world that drive our global economy. These businesses produce the goods and services we all consume. In turn, they rely on profit-driven commerce, finance, insurance, and technology organizations to supply them with the critical services and capital to keep their businesses running. Indeed, the private sector trusts only profit-driven organizations who can reliably deliver these vital inputs and business solutions 24/7. Based on this foundation of trust, a network of commerce, finance, insurance, and technology organizations from the private sector must be part of the Digital Economy delivery process. However, these same industries are viewed by governments as vital to national security since they also form the real pillars of trade. As a result, governments must also play a supporting role, as they want to ensure that national concerns and goals are addressed. Governments want to make trade more efficient because it stimulates economic growth but they also want to make sure this is done in a transparent way that upholds national security and addresses any monopolistic concerns. The task of monitoring and coordinating the global delivery network, therefore,
can only be supplied by a semi-government organization that works closely with the network. To ensure the digital platform is maintained effectively and made available to end users at no cost, this organization must share in the global revenues of the delivery network. Finally, to ensure that the core system that powers the Digital Economy is maintained and enhanced, the revenue sharing organization must have strategic partners that help tend this engine of the DEP. Such a formula will connect all the entities required to empower the Digital Economy.

**The Innovation: The Global Structural Formula (GSF) and a globally balanced team**

The Global Structural Formula (GSF) is the first of its kind in the world. It was carefully designed to enable Public/Private Partnerships to participate in a variety of roles including ownership, governance, deployment, and use of the Digital Economy Platform in a manner that offsets geopolitical and monopolistic concerns.

Further, the GSF must be triggered by a non-profit organization working in concert with governments. The non-profit organization must combine the best of all forms of organizations, working together to capitalize on each organization’s capabilities and jurisdictions. In this way, the non-profit organization can provide an independent global monitoring mechanism to effectively address geopolitical and monopolistic concerns. Further, it is of paramount importance to ensure that the required solution is delivered and maintained efficiently by capable global organizations selected under a transparent equal opportunity process.

Thus, the GSF ensures rapid global deployment through the reach and capacity of world-class firms, providing benefits to all participants at no cost to the end user.
Figure 1: The Global Structural Formula (GSF)
The GSF has five key components that combine in a robust way to support rapid, swift deployment of the Global Digital Economy as described below.

**GOVERNMENT (GOV) — GCEL MEMBERS AND SUPPORTERS**
Governments are not business solution providers in the market place, but it is still their responsibility to resolve problems facing their countries. To avoid anti-trust challenges, governments can partner with non-profit organizations that provide equal opportunity to all organizations capable of delivering the required global solution.

**PUBLIC/PRIVATE PARTNERSHIP — GCEL**
Global Coalition for Efficient Logistics (GCEL) is an independent non-profit organization that brings together the public and private sectors whose combined efforts are required to resolve major global challenges for the common good. GCEL’s governing body provides oversight on the Revenue Sharing Organization (RSO) described below ensuring the delivery of the global solution in a rapid and non-monopolistic manner, thus offsetting geopolitical concerns.

**REVENUE SHARING / SEMI-GOVERNMENT ORGANIZATION (RSO) — WLC**
The World Logistics Council (WLC), an RSO, is a semi government organization governed by a global board from around the world (Americas, Europe, MEA and Asia). The structure of the board offsets geopolitical and monopolistic concerns by representing the interests of the region on the RSO board. The board monitors the performance of the profit-driven organizations, collectively known as the World Logistics Council Network (WLCN). The RSO has no direct commercial involvement in the private market, since its operation is supported through a revenue sharing formula with the WLCN.
The WLC is owned and governed by four Regional Councils (Americas, Asia, Europe, and Middle East & Africa) to represent the economic interests of all world regions. The WLC also meets the overriding imperative of a neutral organization that is formed for the purpose of investing in and maintaining the engine of the global Digital Economy. Specifically, the WLC was founded to:

- Sustain the core engine driving the Digital Economy—the MDDEAS (Multi-Dimensional Digital Economy Application System)
- Select the World Logistics Council Network, a collaborative of world-class commerce, finance, insurance, and technology companies that act as gateways to deploy the MDDEAS in the private sector
- Bring together the world’s finest organizations and then fund them to conduct the R&D required to keep the engine of the Digital Economy at its very best
- Share a portion of the benefits directly with economic development organizations around the world that finance and help Small & Medium Enterprises (SMEs).

The World Logistics Council Development (WLCD) is the technology implementation arm and wholly-owned subsidiary of the WLC. The WLCD oversees the E-Hub Core Triangle, which is made up of a world-class academic institution, a visionary public organization, and a globally renowned technology firm. All of these partners collaborate to ensure that the best efforts of each are included in the development, hosting, continual enhancement, and gateway support, thus delivering the MDDEAS to empower the Digital Economy. The WLCD is governed by two Boards. The WLCD Governance Board includes representatives from the WLC and the three E-Hub Core Triangle partners. Concurrently, the WLCD Technology Governance Board (TGB) will include the 12 Technology Gateways, e-Commerce, e-Finance, and e-Insurance Partners, in addition to the WLC. The TGB
is responsible for overseeing the technology strategy, architecture, best practices, innovations, data privacy, technology standards, and application standards required for on-going maintenance and continual enhancement of the MDDEAS. To ensure geopolitical acceptance, the WLC has no direct commercial involvement with the private sector end-users. Rather, its operation is supported entirely through a revenue sharing formula with the profit-driven organizations. In short, the WLC is the critical missing element to delivering a tangible solution in a global formula.

**PROFIT DRIVEN ORGANIZATION (PDO) – WLCN**

The World Logistics Council Network (WLCN) is comprised of twelve leading global technology organizations, one globally renowned e-Commerce giant, one world leading e-Finance firm, and one globally reputed e-Insurance company, all of whom will be selected by GCEL through a transparent Request for Proposal (RFP) process. These companies are trusted partners of the private sector and will work together as “Gateways” in a cooperative environment with a global governance structure that will monitor their efforts to commercialize, deploy, and enhance the MDDEAS. With huge potential markets, strong profit motives and an open-access solution, these strategic partners will be driven to deploy the MDDEAS rapidly. Implementation will be further accelerated as technology gateways integrate legacy-system clients, who have previously mistakenly attempted to make vertical investments to maximize horizontal efficiencies.
**Mission:** Project manager for GCEL to coordinate all deployment activities to deliver the global Digital Economy.

**Status:** An Irish, semi-government, revenue sharing organization with a corporate charter.

**Members:** The founder and the four Regional Councils.

**Major Roles:**
- Commercialize, deploy and maintain the global Digital Economy Platform and ensure its availability to all at no cost to end users.
- Monitor the performance of the World Logistics Council Network.
- Serve as one of three co-chairs on GCEL’s Board.
- Lead Benchmark Trade Lane deployment.

**Mission:** Deploy and maintain the open access technology platform that powers the global Digital Economy.

**Status:** A subsidiary of the WLC with a corporate charter.

**Members:** Owned seventy percent (70%) by the WLC and thirty percent (30%) collectively by the technology, public, and university partners of the Core Triangle. Governed by the WLC and Core Triangle members. Advised by the 12 Technology, 1 e-Commerce, 1 e-Finance, and 1 e-Insurance Gateways.

**Major Roles:**
- Build and maintain the Multi-Dimensional Digital Economy Application System (MDDEAS).
- Maintain Data Privacy and Information Security of the MDDEAS.
- Undertake world-class R&D on the engine of the digital economy.
- Facilitate the participation of integrated technology service providers in the Digital Economy Platform.

**Mission:** Bring together public, private and NGO stakeholders to trigger and monitor the global solution for the benefit of all.

**Status:** A Swiss-based nonprofit public/private organization.

**Members:** Public organizations responsible to resolve the global economic challenge and private sector capable to deploy the technical solution.

**Major Roles:**
- Publish guidelines and administer the equal-opportunity process which selects the World Logistics Council Network.
- Trigger and oversee the Regional Benchmark Trade Lanes.
- Monitor the performance of the World Logistics Council.
- Implement a global R&D program to amplify and extend the benefits of the digital economy.

**Mission:** Provide global governance to the WLC and spur deployment in the four regions of the world.

**Status:** Regional semi-government organization with a corporate charter.

**Members:** Owned and governed by organizations from major countries in each of the four world regions.

**Major Roles:**
- Own and provide governance to the WLC, representing the interests and concerns of their respective region in the ongoing operations of WLC.
- Monitor the performance of the WLCN within their region.

---

*Figure 2: GSF Roles Summary*
The WLCN will also include many qualified Integrated Technology Providers (Tracking Technology Providers and Data Systems Integrators) that will provide value-added logistics services. They can easily integrate their services into the open access technology platform of the MDDEAS or extend their existing Vertical Systems with the analytics from the MDDEAS.

The effectiveness of the GSF depends on the credible leadership of the governments. However, governments around the world are losing the trust of their citizens as the benefits from the globalization driven growth have failed to trickle down to them. GCEL’s innovation addresses this lack of trust faced by governments in triggering yet another globalization program — the global Digital Economy through the creation of a transparent network of Public / Private Partnerships.

**Figure 2: GSF Roles Summary**

**Mission:** Deploy the MDDEAS for trade to public and private users around the world.

**Status:** Gateways which are prominent commerce, technology, financial, and insurance organizations from around the world.

**Members:** Privately owned companies with their own corporate governance.

**Major Roles:**
- Deploy the MDDEAS around the world.
- Serve on the Technology Governance Board to the WLCD.
- Technology Gateways deploy the MDDEAS directly through the Internet or through interfaces to the existing systems.
- Financial Gateway provides a vast array of financial services to users of the MDDEAS.
- Insurance Gateway provides insurance service to all firms in the B2B marketplace.
- Commerce Gateway provides advertising & market exchange services.
2.3 Global Market Acceptance of GCEL’s Innovations

**The Problem:** *Diminishing trust in government by the real economy participants*

Events over the last few years have shown that political leaders worldwide are consistently losing the trust of their constituents. Meetings of the World Trade Organization are regularly accompanied by spectacular and damaging protests. Trade pacts are demonized in politics across the world. Recently, one country even went so far as to vote to trigger its exit from a pan-regional organization.

Despite the perception of citizens worldwide, the majority of world leaders actually do care about the well-being of their constituents. They want to make the world a better place, and are striving to install sustainable economic solutions that will promote peace and prosperity. However, intent and accomplishment are two different things. Struggling to make progress in an incredibly complex world economy, many well-intentioned leaders are plagued by bad advice, jurisdictional limitations, and the political risks inherent with bold action. Moreover, these efforts are critically hampered by a lack of tools, making bold, revolutionary change almost impossible.

Given these realities, is it really fair to blame lack of progress on the politicians and technocrats alone? No. We can all read the newspaper, where the results of worldwide economic stress plays out on a regular basis, and one only needs to briefly survey their own social media feeds in order to feel the discontent in societies across the globe.
We can all see that bold action is required, that our politicians need our help and our support to initiate the changes required to make our world economy better for all. So, the next question is... what can be done about this diminishing trust in government as a pretext to making our world economy better?

**The Required Solution:** Governments have to re-establish trust by enacting policies that benefit all

Despite the diligent work and policies by the past G20 nation summits, the diminishing trust by the public and the real economy participants is not improving mainly due to global political challenges and lack of G20 jurisdictions. We must change this pattern of diminishing trust by focusing on developing a solution that has the following characteristics:

- **The Policy Solution Must Benefit the Real Economy Participants.** The policies developed by the national leaders must be able to demonstrate that the benefits of the policies directly accrue to the real economy participants including SMEs that generate 80% of new employment.

- **The Solution Must Be Adopted Rapidly by the Real Economy Participants.** The policies enunciated by the leaders must be based on the real needs of the citizens for them to be rapidly adopted and make a tangible impact on the lives of the citizens.

Accordingly, GCEL has developed the following innovation that has widely gained acceptance by the world leaders.
The Innovation: Implementable Policy Formula (IPF)

The IPF has the following defining characteristics to assist us in developing economic growth policies that have the highest likelihood of benefitting the real economy participants by:

- **Identifying the Common Denominator Among Policies.** We need to identify and focus on the most common and comprehensive denominator of those tangible and quantifiable policies that have a rapid and direct positive impact on the participants of the real economy.

- **Obtaining Validation from the Ground Level.** It is of paramount importance that the policy benefits are validated by listening to the voice of the real economy participants impacted by these policies at the ground level, while ensuring that the needs of those participants are met by tools developed to satisfy the identified policy goals.

- **Securing the Industry Capabilities and Commitments.** Once the policy’s benefits are validated and tools are defined, we must secure the related industry resources for rapid development and implementation of the required tools.

The question remains: Where should we start? In pursuit of implementing the IPF, GCEL has achieved the following:

**From a Common Denominator Among Policies** perspective, GCEL was instrumental in gaining consensus at the 2015 B20 Turkey, where 17 out of 25 key B20 policy recommendations were impacted by the Digital Economy. For the first time ever, the empowered Digital Economy became a key policy recommendation by the B20 that was adopted in the G20 Leaders final communiqué.
Furthermore, to date more than 75% of the world’s citizens represented by 150 governments through their pan regional organizations and industry associations including the Organization of Islamic Cooperation (OIC), League of Arab States (LAS), the African Union (AU), and the Organization of American States (OAS) among others have executed MOUs and / or published economic Road Maps towards deploying the Digital Economy globally.

Regarding **Validation from the Ground Level** to date, 86% of the G20 citizens represented by 71 government ministries, industry associations, academia, and private sector experts, including Deloitte, Frost & Sullivan and The Nielsen Company, have commenced diagnostic trade efficiency assessments as a first step to adopt the Digital Economy Platform (DEP). So far the results have been staggering: 85% of the trade participants assessed have no horizontally integrated system and 89% want the proposed DEP.

In terms of **Industry Capabilities and Commitments**, to date 26 of the world’s leading technology firms, with annual revenues of more than USD 400 billion and 2.4 million experts operating in more than 130 countries around the world, have further validated and committed to deliver the tools identified by users at the ground level designed to achieve the goals of policy makers. These large technology firms have signed exclusive agreements as a first step to be selected to participate in empowering the Digital Economy. These for-profit companies realize that they simply cannot provide a global solution that is non-monopolistic and have thus joined hands with GCEL to deploy the DEP described below.
2.4 A Digital Economy Platform

The Problem: The preponderance of low-quality data impedes the emergence of the Digital Economy platform in the B2B marketplace

The current information environment in the B2B marketplace is inconsistent and lacks validation. The lack of effectively collected, validated, classified, and stored data limits the availability and accessibility of information concerning trade participants’ activities and performance. This makes it difficult for a participant in the B2B market to initiate and execute trade transactions in global value chains. Available information, such as survey research and unsubstantiated online reviews, is limited and passive, does not provide enough confidence for a buyer to conduct commerce, a lender to extend trade finance, or an insurer to underwrite the trade transaction.

The quality of data in the world of information has two extremes:

- At the low end of quality, we have Non-Validated Data (NVD), which is data provided by a single data source without validation
- At the high end of data quality, we have Ultimate Data Quality (UDQ), which is provided to initiate an action in the real world, and is continuously validated through multiple data sources in the same pipeline.

Today, the world of IT is primarily reliant on NVD, with a high degree of dependency on customer reviews, IP address behavior, like and dislike selection and others, and less reliant on UDQ, which exists only in limited pockets in today’s world.
The question remains… where can we find UDQ relevant to the B2B marketplace that can be utilized to unleash the potential of the Digital Economy platform? The main foundation of this UDQ for trade resides within Logistics, as shipments flow through several of the industry clusters in the real economy. If data is continuously validated from multiple sources in the same trade lane pipeline, and is cross-checked against historic data as well as current activity data shared throughout the pipeline, errors or anomalies will be quickly identified and addressed in near real time. Unfortunately, as this information is not currently fully digitized, UDQ isn’t readily available to participants in the Real Economy, and therefore provides minimal value.

While Logistics is the source for the UDQ, it’s also one of the four pillars of global trade: Commerce, Finance, Insurance, and Logistics industries.

Enhancing the efficiency of the logistics industry by horizontally integrating and automating the processes across all the industry clusters in the global value chains will enable peak logistics performance. At the same time, a system that automates the processes in the logistics industry will also generate the UDQ needed to boost the performance of the other three pillars of trade, thus reaching their full potential and empowering the Digital Economy.

However, we must address the inefficient Global Logistics Industry (GLI) in order to generate UDQ, since the industry is highly fragmented and still largely utilizes manual processes. According to the G20 Nations Shipment Efficiency Assessment Case Study, the average international trade transaction involves redundancy and process quality problems:
On average, 30 parties handle each shipment
An average of 40 documents are exchanged in the shipment process
Typical documents contain 200 data elements, of which 30% are repeated 30 times
60-70% of the data must be re-keyed at least once.

Because logistics is not yet fully digital, the landed import and export costs (LIEC) represent around 12% to 18% of total merchandise trade in the mid- and low-income countries, compared with the 6% that experts associate with peak efficiency in the high-income countries. This inhibits national and foreign investment and restricts the competitiveness of mid- and low-income countries in the global marketplace, preventing the healthy economic rebalancing the world desperately needs now to connect the strengths of the high-, mid-, and low-income countries. When we address the inefficiencies of the GLI, we can not only make the economy truly digital but also enable economic rebalancing across all the countries due to the lowered LIEC, supplying what the world needs for 21st century prosperity.
Today’s GLI is made up of many discrete organizations, most with their own proprietary vertical information systems. Hence, as a shipment passes through the Interdependent Process Environment (IPE) of the trade pipeline, information is not easily shared nor validated in real-time. As Figure 3 highlights, the overall logistics efficiency of a trade is only as good as that of the participant with the least efficiency in the IPE. Very few organizations have been able to create effective horizontal integration of the required information as goods move from the shelf of a seller to the shelf of a buyer (Shelf-to-Shelf). Even in cases where organizations have built vertical systems to achieve this integration, the gains achieved do not extend to all trading parties and products. That means that the status of the vast majority of shipments around the world today is often difficult to determine as they move within the global value chains.

The key to overcoming this problem is recognizing that logistics is inherently horizontal; the efficiency of a shipment must be from Shelf-to-Shelf. As a shipment moves through the IPE, it is handled by

![Figure 4: Decreasing Returns](image_url)
multiple vertical systems. Each was built mainly to suit the objectives and needs of a specific organization in the shipment flow. In some cases, there are organizations that participate in the shipment process but have no systems of their own. Regardless, making any one of the vertical systems better can be prohibitively expensive as most of the existing logistics solutions were designed to accommodate specific requirements of select organizations. While these proprietary systems perform well within their scope, they were never intended to simultaneously manage the end-to-end flow of global shipments for a wide variety of organizations.

Despite expending a great deal of money on in-house vertical systems, organizations quickly reach diminishing returns on their investments, as depicted in Figure 4. As a result, the current GLI is very fragmented, and constant inefficiencies occur as shipments pass through multiple vertical systems.

**The Required Solution: A horizontal Digital Economy Platform**

A solution to this problem cannot be tailored to an organization, a country, or a region because shipments cross multiple organizations and countries, thus the solution must be comprehensive and all-inclusive – Shelf-to-Shelf across the globe. If not, we will fall into the trap of customizing a solution that results in yet another vertical system that tries in vain to optimize the efficiency of what is inherently a horizontal process. A true global solution must integrate and continue to make use of all the existing proprietary vertical systems in a non-intrusive way and thus, bring order and integration to what is now a highly fragmented process.
Many attempts have been made by large organizations to standardize the GLI as a first step towards efficient logistics. These attempts have failed to achieve their intended results, because each region, country and organization around the world is reluctant to change its logistics process for many reasons such as familiarity with existing technology, country regulations, and cost.

At the present time, it is too early to attempt to standardize the GLI. However, we can streamline and simplify the shipment process since the common denominator between global logistics verticals and countries is the shipment itself. In other words, all previous attempts to solve this problem have not been successful because they have attempted to standardize the GLI process instead of the shipment information.

**Comparable Industry – Airline Passenger Reservation Industry**

The power of a horizontal solution can be readily seen by drawing an analogy with an innovation everyone is familiar with — the airline
passenger industry. Four horizontal systems manage 100% of today’s airline passenger industry: Sabre, Amadeus, Galileo and Worldspan. These systems were designed to make airline reservations highly efficient and secure, and today you cannot travel without your name being entered into one of these systems. Travel agents and travel portal websites act as Gateways to these systems, through which you can now purchase a ticket, assign your seat, and print your boarding pass online.

Like today’s GLI, the airline industry once had highly fragmented vertical information systems. The industry developed a horizontal approach to address the fragmentation. The key to this approach, and what made it elegantly simple, was understanding that the passenger was the common denominator. No matter the language, company objectives, or destination, each system began to track each passenger with the same basic information. The result was the electronic boarding pass, which enabled seamless transfer of basic passenger information from one airline to the next. This minimum amount of passenger data — what the airline industry refers to as Universal Data Elements (UDE) — is now printed on every boarding pass (e.g. passenger name, boarding gate, flight number, etc.). Airline passengers all over the world now take that piece of paper for granted, but it was an innovation that truly revolutionized air travel even before the advent of the Internet. A similar approach can now change how trade can be digitally conducted around the world.

**The Innovation: The Multi-Dimensional Digital Economy Application System (MDDEAS)**

The MDDEAS is a worldwide-patented, open-access software technology platform. It can be integrated non-intrusively with in-house
vertical software systems. It will also provide easy Internet access to all entities involved in shipment activities with or without their own systems. It provides seamless Shelf-to-Shelf tools to manage the global supply chain for cargo movement by all shipping modes and offer enabling Digital Economy services such as commerce, finance, and insurance. It interfaces easily with common global applications provided by various RFID and GPS tracking providers.

The MDDEAS represents a quantum leap in the capabilities of the GLI because it delivers new levels of efficiency and cargo security to every participant in the shipment flow. The MDDEAS can do this because it solves the GLI fragmentation problem by focusing on the industry common denominator – the shipment information. The MDDEAS provides a novel data environment based on continual validation of data by the participants in the B2B marketplace to deliver Point-to-World information without the need for standardization. This rich data environment allows the MDDEAS to provide more than 150 previously unavailable features that will deliver tremendous benefits to all GLI participants. The MDDEAS effectively complements investments made by current in-house “legacy” vertical software systems by extending them with novel capabilities.

The MDDEAS is an open access platform that has been tested and validated by major public and private organizations throughout the world. The MDDEAS represents a bold new approach to powering all of the digital tools required for the 21st century Digital Economy. It begins with a state-of-the-art e-Logistics suite of services to streamline the flow of goods from Shelf-to-Shelf. In doing so, it harnesses the Ultimate Data Quality (UDQ) based on continually validated rich data related to the service providers in the B2B marketplace, thus enabling 21st century digital services – e-Commerce, e-Finance, and
e-Insurance – with unprecedented precision and reliability that was not feasible until now, thereby ushering in the era of the global Digital Economy.

**Digital Economy Services**
The 21st century MDDEAS environment is an ecosystem that permits global integration of product and service offerings with the intelligent proficiency to match sellers to targeted buyers. This environment is based upon dynamic, validated real-time information accumulated and continuously updated by multiple parties throughout the normal course of trade activities around the world to capture Ultimate Data Quality (UDQ), rather than the unsubstantiated customer reviews presently in use. The UDQ enables the MDDEAS to offer the following 21st century Digital Economy services that can transform the B2B marketplace:

**AxioMark: e-Commerce Services**
The main benefit of the ecosystem described above is that it allows the creation of the smart e-Commerce matrix that will provide the dynamic scoring level needed to:

- Ensure quality of services and products based on sellers’ global track record of trade activities
- Facilitate and expedite product and service finance
- Minimize insurance loss ratios and optimize coverage
- Enable speed of integration of sellers into the buyer’s supply chain
- Ensure the reliability and dependability of the logistics industry pipeline from seller to buyer
- Determine the eligibility of a user to obtain promotions available in the marketplace such as joining Group Purchase Organizations and accessing volume discounts.
The e-Commerce services offered by the MDDEAS include:

- **Digital Advertising**
  This service suite enables the creation and management of campaigns to deliver next generation advertising services to the B2B marketplace that leverage the unique AxioMark digital billboard

- **E-Commerce Enablement**
  This service suite enables the organizations in the B2B marketplace to establish digital storefronts to compete effectively in the global Digital Economy

- **Customer Relationship Management**
  This service suite enables the organizations in the B2B marketplace to manage their customers on a 360° basis to enhance their business excellence.

All of the above smart information is presented at the moment a buyer evaluates any seller’s products or services globally, thus maximizing Conversion Ratios from seeing a desired product or service to its acquisition. As of now, these B2B e-Commerce environment and digital services do not exist, although it remains an ideal that the world at large is striving to reach. So far nearly 90% of G20 citizens surveyed to date have demanded the e-Commerce environment described above.

**AxioFin: e-Finance Services**

The main benefit of the MDDEAS ecosystem described previously is that it allows for the creation of the smart e-Finance matrix that provides the dynamic scoring level needed for:

- **Mitigating Trade Finance Risk**
  Based on the borrower’s historic trade and trade financing activities, the MDDEAS assigns an AxioScore that represents the credit worthiness of the borrower for global trade financing as well as the
commercial reputation of the borrower within the GLI as a service provider with a good track record. Hence, using this AxioScore, a financial institution can make informed decisions on the following:

- Determine the level and terms of global trade financing based upon the AxioScore of the borrower
- Obtain trade finance risk insurance at an equitable cost by sharing with the insurer the de-risking information: (a) The AxioScore of the borrower that reflects its creditworthiness and reputation in the global logistics industry, and (b) Its own AxioScore that reflects the financial health as a lender

**Minimizing Transaction Risk**
Maximize lenders’ capability to electronically direct loan proceeds to the borrower’s preapproved sellers of products and services based upon pre-determined business rules and the logistics milestones in the IPE

**Reducing Asset Recovery Risk**
Ensure the capability to seize assets in the trade pipeline for rerouting or liquidation to minimize asset impairment loss.

All of the above expedites trade finance, promoting trade increases and thereby enabling new global market expansion for large enterprises, as well as for the SMEs of the world.

**AxioIn: e-Insurance Services**
The main benefit of the MDDEAS ecosystem previously described is that it allows for the creation of the smart e-Insurance matrix that provides the dynamic scoring level needed for:

**Mitigating Trade Insurance Risk**
Minimizing underwriter risk and expediting insurance coverage based upon all trade lane participants’ performance of their historic, current, and planned trade activities as well as specific trade pipeline routes and destinations
Maximizing Global Coverage
Provides the ability for firms’ seamless integration into the global trade insurance market, enabling them to provide door-to-door coverage with minimum risk.

Modeling Risks Accumulation
Allows insurers to accumulate risks of multiple concurrent underwritings, currently done manually into a comprehensive risk accumulation model to discover and manage their aggregate exposure to the risks of a party, a facility, an industry, country, natural disaster, terrorism event, or geopolitical event, which has never been possible in such a holistic manner.

Expediting Claims Processes
Access to current and historic information gathered throughout the trade pipeline provides firms with needed data to process claims quickly and accurately.

The end game to empower the Digital Economy within the B2B marketplace is to establish a fully digital trade environment that can optimize the performance of all four pillars of trade: e-Commerce, e-Finance, e-Insurance, and e-Logistics.

As illustrated in the next section, the six key elements of trade efficiency – Integration, Processes, E-Documentation, Tracking & Visibility, Competence, and Cargo Security – are the necessary elements for the integrated e-Logistics platform. By enhancing the efficiencies of logistics, one can strengthen the other three pillars of trade – commerce, finance, and insurance – as well. Hence, optimal performance in all of these six key elements of trade efficiency is necessary to empower the four pillars of trade to deliver the efficiency and cost reductions required to drive trade growth, and thus propel economic prosperity for all the participants in the B2B marketplace.
New Millennium Standard for Growth

Enhancing efficiency through innovation requires that we first step out of the box of traditional thinking. The MDDEAS delivers new 21st century trade efficiency standards based on what technology makes possible today and not best-in-class standards. Combining a robust set of advanced technological features, it maximizes the efficient movement of goods from Shelf-to-Shelf, resulting in significant cost reductions and productivity gains for all entities involved in the logistics supply chain. These gains are achieved by targeting six elements that ultimately determine the efficiency of the global value chains. The World Bank, OECD, APEC, and many other international organizations have identified similar critical elements that affect overall logistics efficiency (World Bank Logistics Performance Index, 2015). The MDDEAS, for the first time ever, comprehensively enhances the efficiency of the GLI by combining all six efficiency elements into a New Millennium Standard for Growth called the 21st Century 6 Elements Trade Efficiency Indicators (21-6-ETEI) as shown in Figure 6 and described below:

Integration. The MDDEAS provides horizontal integration (Point-to-World) of common trade data, allowing information to be shared dynamically and in real-time among all global value chain participants — either through web portal access (portal-in) or via non-intrusive integration with existing vertical systems (plug-in).

E-Documentation. The MDDEAS reduces paperwork to minimize manual data entry errors and data redundancies while maximizing data validation through multiple sources in the IPE. This seamless electronic sharing of essential information roughly corresponds to what has been achieved with the use of Universal Data Elements in the global airline passenger reservation systems, as discussed above, which minimized the need for paper airline tickets and greatly increased operational efficiency.
**Tracking and visibility.** Tracking & Visibility is defined as the ability to obtain real-time information regarding a shipment’s location and movements. Tracking mainly refers to goods in transit between locations. Visibility mainly refers to idle goods at a specific location. The MDDEAS optimizes the efficiency of the supply chain by enhancing planning and decision-making by all participants. Real-time information enables banks and insurance companies to do business with minimized credit and investment risks. Organizations in global supply chains can do business at the lowest cost and with the greatest capacity to execute on time. Real time information also enhances cargo security that enables advanced clearance and facilitates faster movement of goods through ports.

**Competence.** In the context of trade, Competence is achieved when a defined obligation is met on time, with optimal quality and at minimum cost. Any system that facilitates trade is only as good as the people who manage, implement, and execute it. The MDDEAS puts heavy emphasis on initial training and ongoing context-sensitive help online. It transforms contractual obligations (Quality, Time, and Cost) into contracted, forecasted, and actual performance metrics to serve as a self-monitoring system providing real-time information on areas of under performance, ensuring that any breakdowns in the supply chain can be addressed quickly.

**Processes.** Processes are generally defined as the blueprint for maximizing the use of available tools and manpower to achieve a desired output in a specific business environment. The MDDEAS is a system specifically designed to horizontally integrate the processes of all the industry clusters involved in the GLI to enhance operational efficiency for all participants of the global value chains in the real economy.
Cargo Security. The MDDEAS powers a quantum leap in cargo security by providing multiple-source, dynamic validated information about each shipment and its supply chain. It also amplifies efficiency in meeting import/export security requirements by providing customs officials with real-time visibility of shipment movement for advanced clearance. In all, this amounts to a greatly expanded base of information with which border security officials can identify and flag anomalies. In effect, governments can gain a comprehensive understanding of all salient information concerning a given shipment to maximize cargo security (Secure Cargo Anti-Terrorism Coalition Report, 2003).

Thus, by using a comprehensive framework of the 21st Century 6 Elements Trade Efficiency Indicators – Integration, E-Documentation, Tracking & Visibility, Competence, Processes, and Cargo Security – the MDDEAS is able to maximize the efficiencies of the GLI and provide tools to each user to realize the highest possible trade efficiencies.

Proven in Practice
The MDDEAS technical capabilities and program scalability have been tested and proven in a longitudinal project over one of the world’s busiest trade corridors between Canada and the United States. This project involved one of the most complex supply chains in the world — the automotive industry. Based on these on-the-ground results, MDDEAS was found to reduce the cost of trade (as measured by landed import and export costs) by 30%, cut unit operating costs by up to 15%, enhance customs compliance and heighten cargo security intelligence (Secure Cargo Anti-Terrorism Coalition Report, 2003). GCEL was invited to testify before a select U.S. House of Representatives Sub-Committee on Infrastructure and Border Security: Best Business Practices for Securing America’s Borders, which influenced the declaration of the U. S. Presidential Directives – NSPD #41 and HSPD #13, which were written to bolster U.S. homeland security.
The MDDEAS is the authoritative repository of trade data for all nations and such information will be considered to be of national security importance. The following section describes GCEL’s next innovation, the Axioms of the 5Cs, which safeguards the data privacy and information security of public and private organizations.

2.5 Axioms of the 5Cs – the Global Data Security Standard (GDSS)

The custodians of the global Digital Economy agree that trade is the engine to drive global economic growth. In today’s 21st century technology era the digitization of trade has become a policy imperative of the B20/G20, but its power can only be unleashed when accompanied by a Global Data Security Standard (GDSS). Since information is the currency of the future, it must be securely exchanged. Global bodies such as the UN, WTO, APEC, OECD and the World Bank have attempted to address data security, with each organization releasing separate guidelines to cover these concerns. However, some of these guidelines are generally unenforceable as they are restricted by country jurisdictions.

What is needed is an implementable new GDSS that safeguards the privacy of stakeholders and the information security of both public and private organizations. However, it is neither the mission nor focus of governments to provide security solutions directly to the marketplace. It is also not acceptable for the private sector, which has earned the world’s trust through its proven capabilities and skills, to monopolize security solutions. Understanding that data must be shared across borders, one must address Nations’ interdependent security needs and respect their sovereignties, which can only be realized through true Public-Private Partnerships (PPPs).
As a PPP, GCEL brought together over 150 countries (through Pan Regional Organizations), 26 NGOs/IGOs and prominent international service industry firms. GCEL has developed the GDSS, which is based on the following “Axioms of the 5Cs”:

**C.1 Consortium of Globally Balanced Ownership**
It is necessary to ensure a globally balanced ownership of any organization entrusted to manage the storage and dissemination of information in order to offset geopolitical and monopolistic concerns. Furthermore, such ownership must involve semi-government organizations whose mission is to provide governance oversight and serve the public good.

**C.2 Council of Worldwide Fiduciary Governance Board**
To oversee any system of data management it is fundamental that the governance is geopolitically neutral and non-monopolistic, so that no one country or company has undue influence. To ensure an equitable balance, the governance board requires balanced representation from the four regions of the world – Asia, Americas, Europe, and Middle East & Africa.

Each region needs to be represented by semi-government organizations of the 6 major economies in that region with a representative from another country to act as the Chair. In this way, 28 countries accounting for around 60% of the world’s population will constitute the governing board.

**C.3 Committee of Technology Governance Board Experts**
It is not enough that the ownership and governance is geopolitically balanced. There also needs to be a balance at the technical level through a technology governance board that brings together the best minds of the world to ensure the quality and security of the data.
Even at the technical level, we must ensure a non-monopolistic balance by selecting the most qualified technology firms under an equal opportunity process from the world’s four regions, represented by at least three companies from each region. It is essential that the technology governance board be diverse so that all regions of the globe have a seat at the table in terms of responsibility, accountability, and decision-making to ensure data privacy and security, as well as continuous availability for all.

**C.4 Controlled Segregated Technology Development**
While all the above is necessary, privacy and security at the data hosting and coding levels are a must. This requires multiple layers of security and segregation of duties. At the data hosting level, multiple data centers with state of the art firewalls and physical access constraints, as well as multiple companies and employees from diverse countries, are required to minimize any monopolistic and geopolitical concerns. Further, all software coding should be segregated into a minimum of five separate departments, depending on the size and complexity of the modules. Each department will work on isolated modules that will then be integrated by a separate, independent integrator who would not be involved in the coding. This will ensure the highest level of data security and will minimize any back door entry to the system or the data.

**C.5 Continuous and Comprehensive Audits**
To ensure the utmost transparency, there must be additional checks and balances through a hierarchy of audits. First, continuous audits at every level of the operations will flag exceptions and weaknesses in internal controls through a layered management structure. Second, periodic external audits should be performed by world class auditors who will provide reports related to security compliance. Third,
demand audits can be requested by interested parties in order to address specific concerns and verify compliance with data privacy and security requirements. In summary, this multi-layered audit mechanism will ensure the organization does what they say and says what they do.

It is clear that data privacy and information security requires a comprehensive and global solution, one that serves the needs of high-income, mid-income, and low-income countries alike. It should allow the public and private sector to contribute to the development and the implementation of the standard in a geopolitically balanced and non-monopolistic manner, thereby garnering acceptance by all the regions of the world. It must also involve multiple layers of governance within a true Public/Private Partnership.

The GDSS described above will truly protect information, which is the currency of our future, and will enable its safe exchange throughout the world with confidence, thus securing the Digital Economy. Emerging security technologies such as Blockchain can complement this standard but cannot replace it, because only the GDSS can comprehensively address the national security considerations required by all nations in the Digital Economy era.

All participants in the global value chains need the wealth of trade information and tools available in the MDDEAS to collectively enhance their trade performance in the B2B marketplace. Hence, an innovative business model, which is described below, is required to ensure widespread adoption of the MDDEAS platform worldwide.
2.6 An Innovative Business Model

Historically, the digitization of trade has been mainly the province of large companies who have the scale and capital to build information systems to enhance their trade efficiencies. Today, in virtually every nation around the world, SMEs play a vital role as innovation drivers and job creators. However, they lack quick access to trade finance, trade insurance, and trading systems. Studies indicate that major barriers for the SMEs to adopt Digital Economy tools include: (i) cost, (ii) lack of skilled manpower, (iii) low awareness of the benefits of technology, (iv) security and privacy concerns, and (v) poor infrastructure. When the SMEs in a supply chain fail to adopt Digital Economy tools, the efficiency of all value chains they participate in will be adversely impacted. Accordingly, a central problem for triggering a Digital Economy include:

**The Problem: High Costs of Digital Economy Tools**

Today there are three main business models used by the vendors of Digital Economy systems to recoup their investments – Transactional Fee, Subscription, and User Seats. None of these works in an IPE, which involves multiple parties who may or may not have access to information systems. Let’s now discuss these business models.

1. **Transactional Fee**
   - If one of the parties fails to pay its transactional fee, it cannot use the system, which results in efficiencies and security gaps in the IPE.
   - It is not equitable that a party who pays its fees incurs diminished efficiency simply because other parties in the IPE have not paid their fees, and have thus not contributed their information...
Considering the number of transactions per shipment, as well as shipments per IPE and IPEs worldwide, the transaction fee model will require an army of accountants to properly manage and control financial activities.

2. Subscription
   The same concerns above apply.

3. User Seats
   The cost of a system and the sales force required to deploy it globally can limit the global reach of that system.
   System maintenance and upgrades can be cost prohibitive, creating multiple versions in the same IPE that are incompatible among users.
   Users’ systems and networks require subscription fees, so the same “Subscription” concerns listed above apply to the User Seats model.

**The Required Solution:** Provide affordable DEP access to all IPE participants

The Digital Economy Platform (DEP) must be easily available and affordable to all potential users throughout the world. The extent and speed of its global adoption depends on the ease and cost of access to the solution. A business model that results in high-cost for DEP access and/or requires intrusive integration efforts will not gain rapid adoption. What is needed is a unique business model to allow the widest adoption of the DEP by users at the lowest possible cost, through any device either connected directly to the Internet portal (portal-in) or easily plugged into the existing vertical systems (plug-in). Accordingly, for a global solution to be rapidly adopted by all parties
in any IPE, it must be FREE OF COST to the end user, while ensuring sustainability of the MDDEAS. The business model must therefore generate recurring revenue in order to maintain its functionality and deliver the leading edge business capabilities that B2B participants need to compete effectively in the rapidly evolving global economy.

In other words, a novel business model is required to deliver MDDEAS free of cost to the end users while ensuring its sustainability.

**The Innovation:** *MDDEAS is free to end users, sustained through its digital services revenue sharing*

The GSF innovation described earlier introduced the role of the WLC as a semi-government Revenue Sharing Organization that oversees a network of private commerce, finance, insurance and technology firms called the WLCN who work as Gateways to deploy the MDDEAS Digital Economy services worldwide. The e-Commerce, e-Finance, and e-Insurance firms in the WLCN generate revenues projected to be USD 5.5 trillion by 2025 by commercializing the use of the Digital Economy services in the B2B marketplace, which is estimated to be USD 312 trillion by 2025. These revenues are shared by the WLC with the WLCN Technology Gateways, the Regional Councils, and the WLCD, as well as to the SMEs of the world via a global grant program designed to promote business excellence worldwide and enhance system adoption.

The WLC shares a percentage of its net revenue with the WLCD to build, maintain, continually enhance, and support the deployment of the MDDEAS. By sharing revenue this way, all the benefits of the MDDEAS can be provided at zero cost to all end users, including shippers, receivers, LSPs, ports, governments, international organizations, and SMEs. What is more, this access is made in a highly user-friendly
manner, through easy web-portal access to those who do not yet have a system and non-intrusive plug-in access to those who have legacy vertical systems.

To sum up, the innovative business model described above allows billions of users worldwide to realize significant business growth through operational excellence enabled by the MDDEAS, at no cost to those end users, thus facilitating rapid adoption of the system. In addition, the revenue sharing model will sustain the MDDEAS while providing significantly large and new services market opportunities to the commerce, finance, insurance, and technology Gateway firms to achieve the adoption of the Digital Economy services in the B2B marketplace. The following GCEL innovation, the HumaWealth Program, describes how it will further accelerate the adoption of the MDDEAS in all regions of the world.

2.7 Rapidly Deployed Global Economic Benefits

The Problem: The interdependence of the global economy precludes the piecemeal deployment of a global solution

Trade connects the diverse strengths of the world, but it makes the global economy highly interdependent in the process. One needs to only look at the rapid spread of the effects from the 2008 global financial crisis to see how interwoven the global economy has become. In that case, the co-dependency was a negative. But innovation in trade can be highly beneficial, especially if it makes it easier to connect the considerable strengths of our world. In this respect, a new Digital Economy Platform (DEP) can supply the spark — and the business excellence and transparency — to expand trade significantly and rapidly in all the nations. At the same time, though, the DEP cannot
be delivered either piecemeal or slowly. Trade is truly global, and any innovation that makes trade more efficient simply must go global, and it must go global quickly.

**The Required Solution:** A comprehensive deployment program concurrently triggered in all regions of the world

In order for a firm to conduct global commerce, it is necessary that its prospective trading partners in the IPEs also have complete, immediate access to the same system around the world. This is necessary to maximize the benefits offered by the system to all the participants in the global value chains.

One reason G20 leaders are focusing on the Digital Economy is that digital infrastructure can be deployed swiftly. Above all, current economic challenges demand urgent attention. Telecommunications provides a good case in point. Indonesia started out far back in the pack in the use of telecommunications. Yet it deployed cellular towers swiftly, triggering rapid adoption of digital telecommunications. In fact, it surpassed the United States, where copper lines and analog switches (the existing hard infrastructure) were legacy investments that actually delayed the transition to digital communications.

Moreover, just as telecommunications went digital rapidly in mid- and low-income countries, the B2B marketplace can also go digital swiftly in those countries. However, the right tools and road map described below are needed to achieve this.
The Innovation: The 18-Month HumaWealth Program

The HumaWealth Program is designed to address both public and private sector trade concerns, and engages both public and private stakeholders to solve the inefficiencies in today’s B2B marketplace. The Program also creates a global organizational structure to tackle global trade inefficiencies through rapid adoption of the Digital Economy Platform in five key stages highlighted below.

1. HumaWealth Genesis Event. The HumaWealth Genesis Event is a major international summit to be held at the United Nations in Geneva. Attendees will include government leaders, as well as prominent commerce, finance, insurance and technology executives from the Americas, Asia, Europe and Middle East & Africa regions. These firms will be invited to join GCEL and will be introduced to a transparent equal opportunity Request For Proposal (RFP) process. These firms will network with one another to form joint ventures, if necessary, to qualify for selection as regional WLCN Gateways to deliver the MDDEAS globally.

2. Request for Proposal (RFP) Process. Qualified firms at the HumaWealth Genesis Event will be invited to participate in an RFP process to be selected as WLCN Gateways in the commerce, finance, insurance, and technology industries. Initially, a total of 15 Gateways will be selected: 1 for e-Commerce, 1 for e-Finance, 1 for e-Insurance, and 12 for MDDEAS Technology deployment opportunities (allocated equally among all 4 regions - i.e., 3 per region). Selection criteria of the Technology Gateways include technical capability, the extent to which the company can offset geopolitical and monopolistic concerns, and their reach in the global marketplace. Selected companies will be
announced 60 - 90 days after the Genesis Event. The selection of the e-Commerce, e-Finance, and e-Insurance Gateways will be based on their respective worldwide industry leadership for operational excellence and continual innovation.

3. Implement the HumaWealth Benchmark Trade Lanes. The MDDEAS will be triggered through four HumaWealth Benchmark Trade Lanes, one in each region of the world. Each Trade Lane will include sellers, buyers, carriers, and logistics service providers — everyone participating in the shipping process from Shelf-to-Shelf. Each Trade Lane will be selected with care to allow a “before and after” assessment of trade efficiency and cargo security. A rigorous “Benchmarking Operations Excellence” process will assess performance before and after deployment of the MDDEAS. GCEL will define Trade Lane parameters and location in consultation with regional government officials and the WLCN Gateways. The lane selection criteria include:

- Strategic locations of shipper and receiver
- Strategic relationship between regional countries
- Technology Gateway inputs to accelerate integration and adoption
- e-Commerce, e-Finance, and e-Insurance Gateway inputs on customizing the Digital Economy services to the region
- Analysis of Trade Lane volumes and location values to maximize benchmarking results.

4. “Showcase” the Benchmark. After a HumaWealth Trade Lane is deployed and benchmarking is completed, GCEL and the Gateways, supported by its Public and IGO/NGO members, will invite the prominent organizations from throughout the B2B marketplace to attend regional “Showcase” forums. There they will see first-hand the benefits achieved via the MDDEAS. These “Showcase” events will build strong momentum for full regional and global deployment of the MDDEAS.
These regional forums are instruments for the Gateways to promote the MDDEAS capabilities at no cost to the end users in the regions after triggering the global deployment. The in-house vertical system user community will be presented the opportunity to be integrated into the MDDEAS by their trusted legacy solution providers. In addition, the world’s SMEs will be afforded portal-in access to new digital tools provided by the MDDEAS, at no cost.

5. Accelerate Global Deployment / General Availability. The initial HumaWealth Trade Lanes will be benchmarked and globally deployed in 18 months. Based on the extensive benefits received, the Benchmark Trade Lane participants will promote the use of the MDDEAS to their own extended supply chains and customers through viral marketing effects. In fact, only 20 ocean carriers manage nearly 80% of international trade shipments. By focusing on integrating with the carriers and working closely with the WLCN Gateways, we estimate that the MDDEAS will penetrate 60% of the B2B marketplace by 2025. Above all, global coverage will be accelerated by the fact that the Digital Economy Platform will be available to every end user in the world free of charge with guaranteed service availability. To trigger the emergence of a robust global Digital Economy, GCEL uses an innovative organizational structure called the E-Hub of the World Core Triangle, which is described below.
2.8 E-Hub of the World Core Triangle

The Problem: Innovation, technology, and public goods creation occurs in silos

The world is clamoring for the Digital Economy, as evidenced by the 2015 G20 leaders’ communique. Leading universities around the world are innovating to create bodies of knowledge related to global economic growth and are pushing the boundaries of what is possible from technology. Global technology firms are leveraging those innovations to bring about next generation gadgets and services that aspire to revolutionize global trade. Governments are promulgating policies and providing incentives to foster the global Digital Economy within their countries. Yet, we are not seeing its emergence. The problem is that the public entities, academic institutions, and private firms work in silos, but in reality it’s imperative that we join together to solve this problem collaboratively.

The Required Solution: Public, academic, and private entities work collaboratively to realize synergy

The solution must synergistically combine the strengths of public, academic, and private entities. Public entities care for the creation of public goods and desire the widest access of those public goods by its citizens to maximize the welfare of the participants of the real economy. Academic institutions produce long and medium term innovations that can fundamentally transform the global economy but seek industry partners to validate them. Private entities strive to push the frontiers of innovation to build winning
products and services that can empower the real economy participants with the aim of maximizing their own profits. However, only a solution that creates a collaborative environment where these natural strengths of public, academic, and private organizations are woven together can produce the synergies required for sustaining continual innovation of the Digital Economy Platform on an ongoing basis.

The Innovation: The E-Hub of the World Core Triangle

The WLCD is responsible for developing, hosting, deploying and continually enhancing the MDDEAS. The traditional approach for building such a SaaS platform is to house it primarily within a software development department, all within the confines of a private firm. However, when the task is to build a fail-safe Digital Economy Platform that will be used free of cost by billions of people in all corners of the world to reenergize the global economy, there is a need to cooperate with public entities to ensure protection of the Digital Economy Platform’s operations by the international community. Since there has been no prior history with a Digital Economy Platform that horizontally integrates the processes in global value chains, academic innovation is a must – both to produce the original body of knowledge as well as preparing the next generation of Digital Economy leaders across the world.

The innovation of GCEL is to use a creative organizational structure – the E-Hub Core Triangle. This Core Triangle consists of a world renowned academic institution mainly to lead the innovation program, a global technology firm to pioneer development of the Digital Economy tools, and a visionary public institution to champion the adoption of the Digital Economy under one roof. This unique organizational structure
allows the partners to consolidate their competencies in order to build the knowledge-intensive organization necessary to orchestrate the development and enhancement of the Digital Economy Platform.

The next chapter describes in detail the E-Hub of the World Core Triangle.
THE CORE TRIANGLE INSIDE GCEL’S GLOBAL COMMUNITY

Private
Finance, Insurance and Technology Firms with 2.7 Million Manpower Serving 60% of World’s GDP

Public
156 COUNTRIES

Nonprofit
26 NGO’s Development Banks Serving 70% of the World’s SMEs

GCEL
Global Community

Figure 7: Core Triangle Overview
3. The Core Triangle – Powering The Digital Economy

- 3.1 Introduction to the E-Hub Core Triangle
- 3.2 What is the E-Hub Core Triangle?
- 3.3 E-Hub Ownership and Governance
- 3.4 E-Hub Core Triangle Partners Requirements
- 3.5 E-Hub Core Triangle Partner Responsibilities
- 3.6 E-Hub Core Triangle Value Proposition
- 3.7 E-Hub Core Triangle Operations
3.1 Introduction to the E-Hub Core Triangle

The Digital Economy requires a solid foundation, one that overcomes the core problem of today’s trade inefficiencies. Overcoming that problem is not a small matter—it requires an extensive catalogue of innovations centered on the four key dimensions required for a global solution:

- The MDDEAS governance and ownership must offset any monopolistic or geopolitical concerns
- The MDDEAS must be developed, deployed, and maintained by a globally trusted network
- The MDDEAS must be available to every end user around the world at any time under any circumstance
- The MDDEAS must be provided free of cost to the end user, and at the same time must secure its sustainability.

Building on these innovations and working with international public and private organizations, GCEL has championed the deployment of the world’s first DEP.

3.2 What is the E-Hub Core Triangle?

GCEL’s global community brings together more than 150 governments from around the world, 26 IGOs / NGOs, and a world-class network of globally leading private firms to deploy the Digital Economy. A mirror of this global community, the E-Hub Core Triangle is entrusted with the mission of growing the engine that powers the global Digital Economy. Specifically, members of this Core Triangle will be entrusted with developing, operating, and enhancing the MDDEAS while being supported by the top 12 technology firms in the world.
The development and innovation of the MDDEAS must be entrusted to all three parties of the E-Hub Core Triangle at once. This will ensure that the engine at the heart of the global Digital Economy combines the best of each part to yield three critical outcomes:

▶ **Strength.** The E-Hub Core Triangle will be at its strongest when it combines the knowledge of the Academic Partner, the support of the Public Partner, and the ingenuity of the Technology Partner.

▶ **Commitment.** The engine will power the Digital Economy for generations to come. Therefore, it must represent the combined commitment of the three entities, all working together to ensure its long-term effectiveness and efficiency.

▶ **Responsibility.** Shared responsibility ensures that the engine receives the ongoing priority and support that it deserves.

Because it reflects state-of-the-art innovation, the ongoing enhancement of MDDEAS is, by definition, an evolutionary process. It will require world-class expertise and a continuous commitment to attract the best talent in the world with sustained public support. For all these reasons, the three strategic partners have a unique opportunity as part of the E-Hub Core Triangle to align their near-term and long-term vision to be at the heart of the global Digital Economy, mirroring GCEL’s global community as shown in Figure 7 in the previous chapter.

### 3.3 E-Hub Ownership and Governance

In the true spirit of collaborative innovation, ownership of the WLCD will be shared among the E-Hub Core Triangle partners and the WLC.
This shared ownership philosophy brings enormous benefit to all of the participants. The WLCD will be owned 70% by the WLC and 30% collectively by the technology, public, and academic partners of the E-Hub Core Triangle. Governance of the WLCD is provided by the E-Hub Core Triangle partners and the WLC. In addition, the WLCD’s Technology Governance Board involves the 12 Technology Gateways, the e-Commerce Gateway, e-Finance Gateway, and e-Insurance Gateway. This unique shared ownership structure in the WLCD creates an unprecedented value proposition for the E-Hub Core Triangle Partners.

3.4 E-Hub Core Triangle Partner Requirements

Partners in the E-Hub Core Triangle must meet the highest global standards of excellence and achievement. As a member of the E-Hub Core Triangle, the participant will represent the interests of its sector—not just locally, but globally with expertise in all the regions of the world. It is imperative that the organization be recognized by its peers and by the world as being among the best in the industry, and committed to continued excellence for the benefit of the industry and the world. The following summarizes the requirements for a successful E-Hub Core Triangle Partner:

A. Academic Partner Requirements

1. **Global Reach and Recognition:** The Academic Partner is expected to engage in global activities of research, education and outreach that include partnerships with other leading, global universities. It will also be ranked highly among global universities according to third-party studies.
2. **Excellence in Research:** The Academic Partner will demonstrate that it is a Tier 1 research institution, with excellence in administering R&D grants and programs. Its research programs will include international business and trade, with a research center dedicated to logistics or supply chain management. Its faculty in computing sciences, the Digital Economy policies, business and supply chain management will rank among the world’s best.

3. **Excellence in Education:** The Academic Partner will demonstrate close cooperation with business in designing educational curricula. It will have PhD programs in computing science, international business, Digital Economy policies, and supply chain management, and intern programs that meet the needs of a global business environment.

4. **Excellence in Business Engagement:** The Academic Partner will have a dedicated entrepreneurship program, a customized business internship program for both graduate and undergraduate students, and a program to connect research with business.

B. **Technology Partner Requirements**

1. **Geographic Location and Reach:** The firm will demonstrate that it is global, with offices worldwide. It will have extensive client reach across multiple industries, particularly those in manufacturing, distribution, transportation, marketing, finance and insurance. It will also have extensive experience working with governments and IGO/NGOs.
2. **Capability:** The firm will have expertise in all areas of IT systems development, delivery, maintenance and enhancements. Specifically, it will excel at building secure, massively-scalable, social, and mobile Rich Internet Applications on a SaaS basis. It will have global outsourcing services as well as IaaS and cloud computing offerings. It will excel in next generation analytics including In Memory Data Bases (IMDB), search analytics, caching, Complex Events Processing, Business Activity Monitoring, Big Data analytics, predictive analytics, and visual analytics. It will demonstrate expertise in complex programs and project management. It will have outstanding credentials in customer service, client satisfaction and quality delivery. It will have horizontal services in supply chain management and digital commerce, with vertical industry products and services in transportation, marketing, finance and insurance.

3. **Project Experience:** The firm will possess extensive experience in executing complex global programs for developing and deploying systems in the logistics industry for both private organizations and governments. It will excel in developing complex global applications in commerce, finance, and insurance industries, as well as integrating them with third party software.

4. **Technology and Innovation:** The firm will demonstrate a pedigree in technology expertise and award-winning innovation. The company’s R&D will include investments in areas appropriate to logistics, commerce, finance, insurance, and the Digital Economy.
C. Public Partner Requirements

1. Geographic Location: The Public Partner must have jurisdiction over the location of the E-Hub of the World, and ensure significant operational presence of the E-Hub Academic and Technology Partners in that location.

2. Policies and Legislative Priorities: The Public Partner must have policies and legislative priorities that are conducive to trade and economic development. In addition, the policies must be favorable to innovation, entrepreneurial investment, technology development, and other attributes of e-Commerce that underpin the Digital Economy. The government will also demonstrate that it has a strong, collaborative relationship with its local trade and commerce related IGOs/NGOs within its jurisdiction and globally.

3. Business Incentives: The Public Partner will have a track record for providing incentive-based packages to businesses that help attract new business to its jurisdiction. These will range from tax incentives, to grants, to other innovative ways of leveraging the government’s services and discretionary decision-making in favor of the short and long term needs of the business.

4. Values Being the E-Hub of the Digital Economy: The Public Partner will demonstrate its understanding of the importance of housing the E-Hub of the World within its jurisdiction.
3.5 E-Hub Core Triangle Partner Responsibilities

As a member of the E-Hub Core Triangle, each Partner will have major responsibilities. Each organization must represent not only the interests of its respective sector to the best of its abilities but also contribute to the full achievement of the Digital Economy. A summary of the respective responsibilities of each E-Hub Core Triangle partner follows.

A. Academic Partner Responsibilities

The E-Hub Academic Partner needs to be adequately funded and submit to GCEL a Strategic Plan to demonstrate that it is fully capable of discharging the following critical responsibilities in the governance and operations of the E-Hub of the World. The contributions of the Academic Partner fall into three categories: Provide Knowledge, Provide Talent, and Govern Core Triangle.

1. Provide Knowledge: The Academic Partner is the custodian of the repository of knowledge on leading edge technology, supply chain management, e-Commerce, e-Finance, e-Insurance, and global trade. Accordingly, the Academic Partner will provide:

- A multi-disciplinary Core Triangle Expert Panel to advise the WLCD on the development and ongoing operation of the MDDEAS. This Panel will include experts from all critical subject areas listed above. The Panel acts as a sounding board for the WLCD management.
- A multi-disciplinary Core Triangle R&D Program that will receive R&D funds from the WLCD. The Academic Partner will be responsible for crafting an R&D Strategic Plan to be approved...
The Core Triangle—Powering The Digital Economy

by the WLCD board. The Strategic Plan must demonstrate how the Academic Partner will provide leading edge research on all aspects of the Digital Economy Platform, how it will engage the best researchers in the world to carry out its critical strategic thrusts, and how it will accelerate the implementation of new research to enhance the MDDEAS. The Academic Partner will act as fiscal agent for the GCEL’s R & D program and will be the initial chair of GCEL’s Academic Subcommittee.

2. Provide Talent: The Academic Partner will be a critical source of talent for the E-Hub. Accordingly, the Academic Partner shall establish:
   ▶ A Digital Economy multidisciplinary curriculum — at the undergraduate and graduate level — to ensure a stream of students that can contribute to the ongoing success and global excellence of the E-Hub of the World
   ▶ A customized internship program to supply the WLCD with outstanding students in technology, e-Commerce, e-Finance, e-Insurance, supply chain management, and global trade.

3. Participate in E-Hub Core Triangle Governance: The Academic Partner shall designate the Provost or President to serve as a member of the Board of the WLCD. This individual will be an active participant in all strategic decisions and fiduciary oversight of the WLCD. In this role, the Academic Partner official will supply worldwide leadership and provide a global voice for all academic interests in the E-Hub of the World. In this respect, it is expected that the Academic Partner will establish an effective process to gather insights and inputs from global peer institutions.
B. Technology Partner Responsibilities

The E-Hub Core Triangle Technology Partner is at the center of delivering the engine of the Digital Economy. It needs to be adequately capitalized and will submit to GCEL a Strategic Pan to demonstrate that it is fully capable of discharging the following critical responsibilities in the governance and operations of the E-Hub of the World.

1. Manage Diverse Operations with Industry Outreach

- The MDDEAS requires a multitude of diverse backgrounds and skill sets in its development. The Technology Partner will construct and configure its MDDEAS team based on its ability to draw expertise from its multiple locations worldwide, leveraging their local focus and core competencies.
- The E-Hub Technology Partner will reach out to its clients across multiple industries, particularly those in manufacturing, distribution, transportation, commerce, finance and insurance to allow them to participate in all phases (design, pilot and implementation) of the solution development and rollout.
- The Technology Partner will mobilize human resources that have experience with government and IGOs/NGOs, preferably with expertise in the development of online government customs and compliance systems.

2. Deliver Technology Capabilities

The Technology Partner will:

- Scale in all areas of IT related to the E-Hub of the World.
- Deliver the MDDEAS that is fit for delivery in a cloud environment as a SaaS offering and is also free of charge to end users worldwide.
- Demonstrate mature and high quality outsourcing capabilities to complement its in-house team in delivery of the MDDEAS.
- Draw on expertise from outside its existing resources for best management of MDDEAS development and delivery, as needed
- Provide world-class customer service
- Share progress and provide feedback on a regular basis (as will be determined in the agreement with the WLCD)
- Provide resources to support the WLCD’s patent filings.

3. **Manage Complex Programs**

   The E-Hub Core Triangle Technology Partner will:

   - Possess extensive experience in the global logistics industry supporting both private companies and governments
   - Deploy a team with expertise in developing and managing large software development programs in commerce, finance, insurance, and logistics industries, and integrating them with third party software
   - Provide background information for a joint decision on the formation of the core team in two areas:
     a) Horizontal services: supply chain management and digital commerce.

4. **Drive Technology and Innovation**

   The E-Hub Core Triangle Technology Partner will:

   - Provide technology expertise and innovation capable of extending the power and productive capacity of the MDDEAS
   - Create R&D programs in appropriate domains including logistics, commerce, finance, insurance, and the Digital Economy.
5. Participate in the E-Hub Core Triangle Governance

The firm shall designate a senior executive to serve as a member of the board of the WLCD. This individual will be an active participant in all strategic decisions and fiduciary oversight of the WLCD. In this role, the executive will supply worldwide leadership and provide a global voice for all technology interests in the E-Hub. The areas of technology governance domains include:

- Technology Strategy
- Technology Architecture and best practices
- Data Privacy
- Innovation
- Technology Standards
- Application Standards

In this respect, it is expected that the Technology Partner will utilize the Technology Governance Board to gather insights and inputs from the 12 Technology Gateways.

C. Public Partner Responsibilities

As a representative for the general public, the government is powerfully positioned to help unleash global benefits that will serve the world’s interests for all succeeding generations. Rarely, if ever, has a government enjoyed such a profound advantage, or undertaken such a daunting task. The E-Hub Public Partner needs to be adequately capitalized and will submit to GCEL a Strategic Plan to demonstrate that it is fully capable of discharging the following critical responsibilities in the governance and operations of the E-Hub of the World.

1. Provide Attractive Location

   - The government’s jurisdiction will be home to E-Hub of the World, which will house the teams from Academic and Technology Partners
The Public Partner will work with other governments in all regions of the world to secure protection from the community of nations, thus ensuring uninterrupted operations of all E-Hub of the World facilities within its jurisdiction.

2. **Build the E-Hub of the World Campus**
   - The government will build a state-of-the-art campus that showcases the E-Hub of the World with a capacity to house 5,000 staff members initially, with room to expand the campus to accommodate up to 50,000 staff members by 2025.
   - The government will provide for the safe and continuous operations of the E-Hub.
   - The government will provide preferential allocation of electricity, water, diesel, and emergency access to the E-Hub of the World that is on par with a facility of National Security priority and will develop facilities capable of supporting the data center operations certified to be at Tier-4, as specified by the Uptime Institute.

3. **Prioritize Policies and Legislation**
   The government will enact policies and legislative priorities that are conducive to:
   - Trade and economic development
   - Innovation, entrepreneurial investment, technology development and other attributes of e-Commerce, e-Finance, and e-Insurance that underpin the Digital Economy.
   - Demonstrating a strong, collaborative relationship with its local Academic Partner as well as the trade and commerce related IGOs/NGOs within its jurisdiction.
4. Provide Business Incentives
The government will provide incentive-based packages to the E-Hub Technology Partner. The government will have proven programs to advance innovation, including a range of support measures from tax incentives, to grants, to other innovative ways of leveraging its services and discretionary decision-making in favor of the E-Hub Technology Partner.

5. Act as an Ambassador of the E-Hub of the World
The government will have a proven track record that shows it understands the value of hosting the E-Hub of the World within its jurisdiction. That track record will include an appreciation of its role in helping to deliver the promise of economic prosperity and well-being — not just to its own citizens, but also to the world’s population at large through the Digital Economy as it unfolds.

6. Participate in the E-Hub Core Triangle Governance
The government shall designate its highest ranking public official to serve as a member of the Board of the WLCD. This individual will be an active participant in all strategic decisions and the fiduciary oversight of the WLCD. In this role, the public official will supply worldwide leadership and provide a global voice for all public interests in the E-Hub of the World. In this respect, it is expected that the government will establish an effective process to gather feedback from other governments around the world.
D. Technology Gateway Responsibilities

Representing the voice of the customers, the Technology Gateways from all regions of the world will work closely with the E-Hub Core Triangle partners to ensure that the MDDEAS is built to meet the market needs and support their customers in gaining easy access to the Digital Economy platform. Hence, the specific responsibilities of a Technology Gateway include:

- Provide non-intrusive integration access to the MDDEAS at no cost to the end users via a unique revenue sharing model
- Commercialize the use of the MDDEAS in the B2B marketplace by interfacing the MDDEAS to their existing systems (plug-in) or directly via the MDDEAS portal (portal-in)
- Ensure that the service delivery strategy of supporting its existing client systems is aligned with that of the E-Hub of the World service delivery strategy
- Work collaboratively in the WLCD Technology Governance Board to:
  - Ensure the leadership of the MDDEAS through Continual Innovation of MDDEAS Apps and Technologies
  - Govern Technology Standards of the MDDEAS platform to address monopolistic and geopolitical concerns
  - Govern the Application Standards for automating different business processes in the MDDEAS
- Designate a senior level executive to serve on the global Technology Governance Board of the E-Hub of the World
- Participate in the Benchmark Trade Lane deployment of the MDDEAS by connecting their customers to the platform in the regions in which they have been awarded a Technology Gateway license
- Participate in HumaWealth Showcase and similar events to demonstrate the balanced economic development benefits of the Program to the region.
3.6 E-Hub Core Triangle Value Proposition

Participation in the E-Hub Core Triangle brings significant benefits to the Academic Partner, the Technology Partner, and the Public Partner as the representatives of their respective sectors. Beyond the simple fact that all participants are at the very heart of the global Digital Economy, the value proposition quickly solves many of the big challenges now adversely affecting each sector today. These include: the Academic Partner’s reduced public funding and strong competition among peers for the best students; the Technology Partner’s need for innovation, new markets, and competitive advantage in technology; and the Public Partner’s need to create jobs and grow public revenues by attracting new world-class businesses. Specific benefits include the following:

A. Academic Partner Value Proposition

For its role in leading the E-Hub of the World to champion the global Digital Economy, the academic institution can expect:

- An annual innovation fund valued at USD 22 billion for R&D by 2025 — as well as attracting the most influential symposiums, speakers and accomplished professors to the faculty
- Minority ownership in the WLCD, an equity stake projected to reach a value of USD 38 billion by 2025
- Participation in the governance of the E-Hub Core Triangle, a benefit that extends to the Academic Partner’s contribution to economic prosperity and well-being around the world
- Global recognition that distinguishes the Academic Partner from its peers in a highly competitive environment
- Best-in-class jobs for graduates and interns, helping to attract the best students.
B. Technology Partner Value Proposition

For providing the leadership in developing the technology inside the E-Hub Core Triangle, the Technology Partner can expect:

► A highly attractive equity value, projected to reach USD 310 billion by 2025
► Improved stock performance in acknowledgement of its central role in enabling global trade, commerce, and financial services and other business integration
► Global competitive advantage as the principal supporter of the engine powering the global Digital Economy
► Access to leading-edge innovation that complements and extends its own research and development investments
► The ability to leverage its own assets and knowledge base into new segments of the global logistics market, financial centers, insurance and e-commerce industries
► Direct incentives that enhance revenue and profitability
► Operating at the center of the 12 Technology Gateways, each among the largest technology companies in the world
► The opportunity to grow new revenue in addition to obtaining equity in the E-Hub of the World, which can also provide an exit strategy for executives and shareholders
► Access to the MDDEAS core technology and intellectual properties
► A channel for global access to new market and market segments which today are too expensive or too difficult to reach.
C. Public Partner Value Proposition

In exchange for its leadership in the hub of the global economy, the government can expect:

- Nearly USD 24 billion in new annual income tax revenues by 2025 to help maintain existing services and provide funding for sustainable new services that its citizens require.
- 357,000 new private sector jobs by 2025, including both professional workers at a higher salary base as well as an increase in the service work force catering to the needs of the entire growing community.
- Minority ownership in the WLCD, an equity stake projected to reach a value of USD 116 billion by 2025.
- Recognition for delivering the Digital Economy engine that G20 leaders seek in order to rebalance the global economy.
- Energized business and government collaboration and innovation that can spark a powerful and globally attractive e-logistics/e-commerce/e-finance/e-commerce industry cluster.
- A thriving economic environment fostered by hosting the E-Hub of the World, which will attract other industries beyond logistics and technology, thereby further diversifying the economic base of the community.
- Recognition as a visionary government that understands its ability to contribute to local and world needs while securing local prosperity.
- Leadership that is distinguished in helping to inspire trade and technology innovation that results in new economic growth—not only at home but also abroad.
- Attract new businesses that help to make the location an even more attractive place for talent and innovation.
D. Technology Gateway Value Proposition

The Technology Gateway can expect to:

- Be one of 12 exclusive Technology Gateways to be provided with a market opportunity approaching USD 400 billion annually by 2025
- Expanded sales to existing customers by enhancing the efficiencies of their current “vertical” systems, leading to increased ROI for the current customers
- Provide value-added features to the in-house verticals systems of the current enterprise clients
- Deliver Point-to-World integration thereby providing unprecedented capabilities with Ultimate Data Quality to existing enterprise clients
- Benefit from viral and other marketing programs of the MDDEAS to expand sales to new markets that want to use MDDEAS by providing them with MDDEAS installation and integration services
- A global leadership position as a member of the Technology Governance Board that defines the future of the technology that powers the world’s Digital Economy.

3.7 E-Hub Core Triangle Operations

The E-Hub Core Triangle operations are based on the best practices of the world-class technology service organizations, which is called ITIL (Information Technology Information Library) and ISO 20000. This enables the technical team to work based on IT Service Management (ITSM), where everyone is working towards providing services with measurable value to the business world. The ITIL approach organizes teams around 26 distinct technical processes organized into five phases that every application service goes through – Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement. Every ITSM process of the E-Hub Core Triangle will be managed by a Council designated specifically for enhancing the capability and maturity of that process.
4. Conclusions
The global economy is at a turning point. The traditional remedies of the past will not answer the urgent needs of today. The lingering effects of the 2008 Global Financial Crisis are proof of that. We can succumb to the chorus of fear, the mountain of debt, and the current paralysis among policy officials — or we can innovate to chart a new course to prosperity. The time has come to seize the true promise of the Digital Economy.

There is a good reason that the Digital Economy has not yet been fully realized: the logistics industry that connects our world and serves as the pipeline for the flow of goods in the B2B marketplace is massively inefficient. Six decades ago, a significant innovation — the multi-modal steel container — delivered major efficiencies to spur decades of globalization driven growth. We can do it again, but this time with the digitization of trade to catapult the USD 140 trillion global B2B marketplace into higher trajectories of effectiveness and efficiency.

However, point solutions such as digitizing devices or automating trade transactions within an organization, a country, or a region alone cannot help us realize the global Digital Economy. Only a careful orchestration of a wide range of innovations that work in concert at micro, macro, and technology levels comprehensively across all regions of the world can achieve this.

GCEL’s innovations are necessary and sufficient to integrate our global value chains by providing real-time rich validated digital information to the participants of the B2B marketplace in order to promote their business excellence. While doing so, they transform the four pillars of trade — commerce, finance, insurance, and logistics — with 21st century efficiencies based on what technology makes possible. By
folding these technology innovations into a comprehensive global economic development program called HumaWealth, GCEL is now poised to trigger balanced and sustained economic growth across the globe.

The final piece in the puzzle is now being put in place — the piece that lies at the very heart of our innovations: The E-Hub of the World Core Triangle. The E-Hub Core Triangle Partners, who work collaboratively with the commerce, finance, insurance, and technology gateways, have a huge responsibility to deploy and maintain the MDDEAS — the engine that powers our globe’s Digital Economy future.

This responsibility needs to be seized by those who understand the call to innovate and are driven by an altruistic spirit to transform the world for posterity. *That spirit defines what GCEL is all about.*
Bibliography


Glossary of Terms

21-6-ETEI  Twenty-first Century 6 Elements Trade Efficiency Indicators – Integration, E-Documentation, Processes, Tracking & Visibility, Competence, Cargo Security

Academic Partner  A member of E-Hub Core Triangle responsible for developing original knowledge and promoting its use for the growth of the global Digital Economy

API  Application Program Interface. The interface to an application that external systems can call to receive documents/data from or deliver documents/data to that application.

AxioFin  An e-Finance product suite for the buyers and sellers in the B2B marketplace

AxioIn  An e-Insurance product suite for the buyers and sellers in the B2B marketplace

AxioMark  An e-Commerce product suite for the buyers and sellers in the B2B marketplace

AU  African Union

B20  The business advisory body comprising of the executives from the top 20 economies of the world that advises the leaders of G20 nations
**B2B**  Business to Business marketplace

**BAM**  Business Activity Monitoring of business events in real time to generate Key Performance Indicators and dashboard of business activities in real time

**BPMS**  Business Process Management System to codify workflow of a business process, so that it can use simulation to identify process bottlenecks to optimize transaction throughput

**BTL**  Regional Benchmark Trade Lanes implemented in each of the four regions deploying the MDDEAS. Each deployment lane includes seller, buyer, carrier, finance, insurance, ports, customs, and logistics service providers – everyone participating in the shipment process from Shelf-to-Shelf.

**Cargo Security**  Cargo Security, an element of 21-6-ETEI, is defined as the establishment and uniform practice of policies and procedures that secure the flow of commerce against acts of terrorism

**CEP**  Complex Events Processing engine for correlating business events in real-time to sense patterns of interest and, if appropriate, send alerts in real-time for corrective action

**Competence**  Competence, an element of the 21-6-ETEI, is when a defined obligation is met on time, with optimal quality and at minimum cost

**DEP**  The Digital Economy Platform (MDDEAS)
**E-Documentation**  
E-Documentation, an element of the 21-6-ETEI, is the creation, storage, and transmittal of necessary data related to trade in purely electronic form.

**E-Hub**  
A technology center of excellence established by the WLCD to build and operate the MDDEAS platform.

**E-Hub Core Triangle**  
The Academic Partner, Public Partner, and Technology Partner that works together to build and host the MDDEAS platform.

**HumaWealth Program**  
The HumaWealth Program is designed to Connect the Strengths of the World Community, Creating Well-being Across Humanity. It engages both public and private stakeholders to solve the inefficiencies in today’s B2B marketplace through an empowered Digital Economy by implementing the MDDEAS.

**e-Logistics**  
The suite of Apps in the MDDEAS that specifically integrates and automates the processes in the 19 industry clusters of the Global Logistics Industry (GLI).

**G20**  
G20 nations, the top 20 economies of the world.

**GCEL**  
Global Coalition for Efficient Logistics.

**GDSS**  
Genius Event  A major international summit organized within the HumaWealth Program to bring together world leaders from government and business throughout all regions of the world to initiate an RFP process to select the Gateways who deploy the use of the MDDEAS in the e-Commerce, e-Finance, e-Insurance, and e-Logistics industries.

GFC  The Global Financial Crisis of 2008

GLI  Global Logistics Industry

GSF  Global Structural Formula of GCEL brings together public, semi-government, non-profit, for-profit, and revenue sharing organizations, capitalizing on each organization’s capabilities and jurisdictions to address the geopolitical and monopolistic concerns of launching and operating the Digital Economy Platform

IGO  Inter-Governmental Organization

IMDB  In Memory Data Base. Here, the entire data base of an application is stored as solid state memory directly accessible to a processor so that there is no need to go to a storage tier to fetch data

Integration  Integration, an element of the 21-6-ETEI, is defined as the ability to connect all participants involved in the flow of a shipment within a seamless, dynamic information-sharing environment

IPE  Interdependent Process Environment of the trade pipeline

IPF  Implementable Policy Formula, which provides a framework for governments to develop and implement effective policies by identifying
a common denominator, obtaining the voice of the citizens impacted, and securing the industry resources to implement

**LAS**  League of Arab States

**LIEC**  Landed Import and Export Costs related to trade comprised of transportation processing, inventory carrying, and handling etc. usually calculated as percent of the shipment value to measure the cost of importing and exporting goods

**LSP**  Logistics Services Provider in the GLI

**MDDEAS**  Multi-Dimensional Digital Economy Application System, a Platform that provides the Digital Economy services including e-Commerce, e-Finance, e-Insurance, and e-Logistics

**NGO**  Non-Governmental Organization

**NSS**  The Nations Security Solution (NSS) is developed for a comprehensive adoption addressing nations’ interdependent needs.

**OAS**  Organization of American States

**PDO**  Profit Driven Organization

**Point-to-World**  An integrated information environment provided by the MDDEAS where information about a business event occurring at a point is accessible in real-time to the stakeholders anywhere in the world
Processes  Processes, an element of the 21-6-ETEI, is defined as the blueprint for how to maximize the use of available tools and manpower to achieve a desired output in a specific environment.

Public Partner  A member of the E-Hub Core Triangle responsible for providing facilities capable of housing the E-Hub of the World and hosting uninterrupted operations of the MDDEAS under the protection of the international community.

RSO  Revenue Sharing Organization.

SAAS  Software As A Service model for making applications available for any registered user to access the services of the MDDEAS from anywhere around the world.

Shelf-to-Shelf  Flow of goods from the shelf of a seller to the shelf of a buyer across several industry clusters involved in trade.

Showcase Event  The HumaWealth Showcase event is held in each region of the world after the successful completion the BTL to demonstrate the benefits realized from the MDDEAS to build strong momentum for full regional and global deployment.

SME  Small and Medium Enterprise.

Technology Partner  A member of E-Hub Core Triangle responsible for utilizing the innovations from the E-Hub Academic Partner and Gateways to build and continually enhance the MDDEAS platform in the E-Hub of the World facilities.
**Tracking & Visibility**  Tracking refers to real-time information regarding a shipment’s location in transit. Visibility refers to real-time information regarding idle shipments at a specific location. Together, Tracking & Visibility, an element of 21-6-ETEI, is particularly important to indicate the time and duration that a shipment is in the jurisdiction of a specific cluster for purposes of planning and accountability.

**UDE**  Universal Data Elements used by service providers to uniquely identify a shipment as it flows through any of the 19 industry clusters

**UDQ**  Ultimate Data Quality (UDQ) is the data validated by multiple service providers in the same trade pipeline and is provided by the MDDEAS to initiate an action with confidence in the real world with near certainty to the veracity of the data

**USD**  United States Dollar

**WLC**  World Logistics Council

**WLCD**  World Logistics Council Development

**WLCN**  World Logistics Council Network