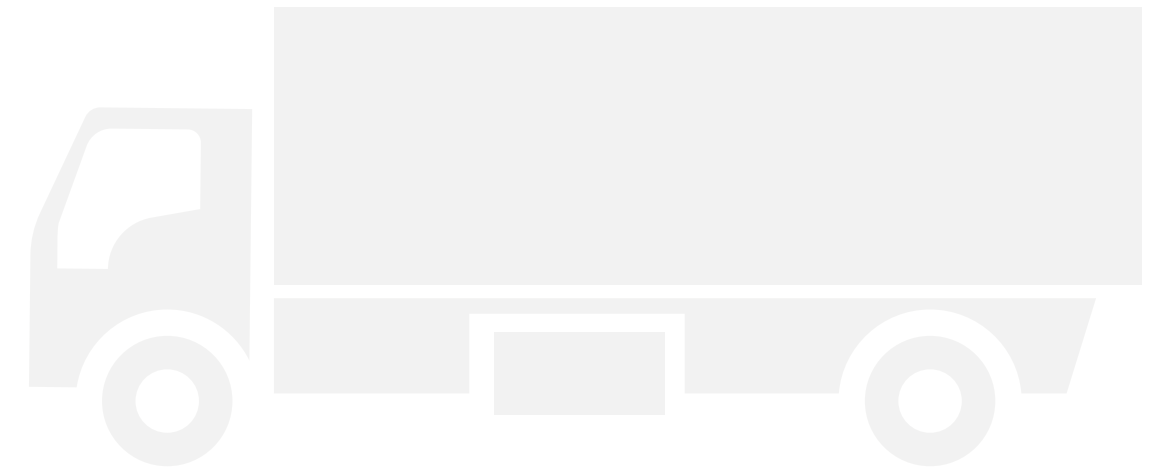


“How can we enhance Freight Visibility and Manage Fleets better?”



The GrowthEnabler InFocus reports uniquely address the top priorities for technology leaders and their teams; by recommending potential solutions, in the context of business growth. Each business priority is broken down to point level/function-specific solutions that are further linked to technologies with a list of vendors. Business Solutions are sourced from GrowthEnabler Pii, our intelligence gateway to over 525K high growth tech companies. This report is designed to navigate the ever-changing technology landscape, and enable more informed, and quicker, decision making.

3Step Guide
DocumentCreated for the:
**CIO, CDO, CTO,
CSO, CEO**Reading Time:
15 minutes

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- 06. / Pricing & Routing Optimization
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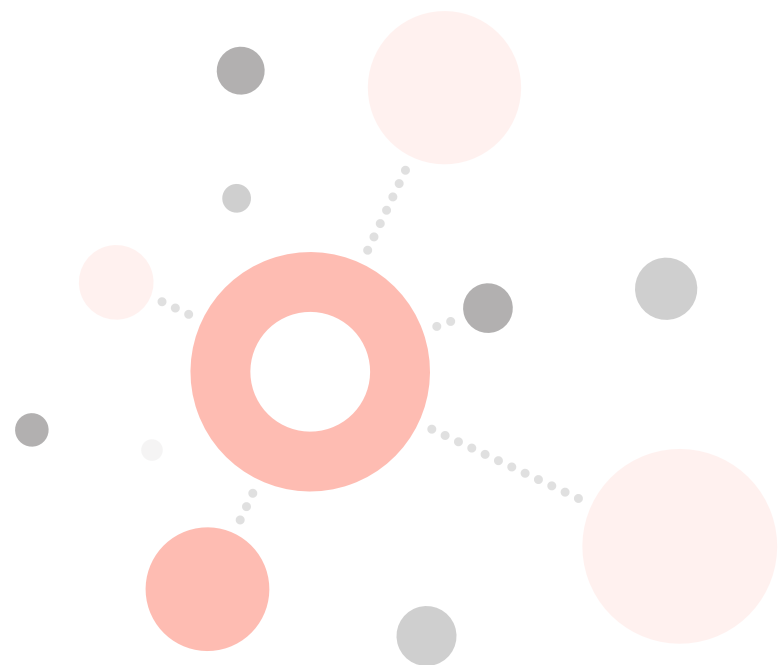
How will digital transformation effect growth?

An introduction

Giants like Fedex, UPS and DHL have dominated the supply chain and logistics industry for decades through a variety of integrated offerings. The significant economies of scale associated have been major competitive differentiators and acted as impregnable barriers to entering the market. However, the advent of new-age technologies like the Internet of Things, Advanced analytics coupled with the trend of digitization is enabling asset-light, technology driven startups in disrupting the existing paradigm.

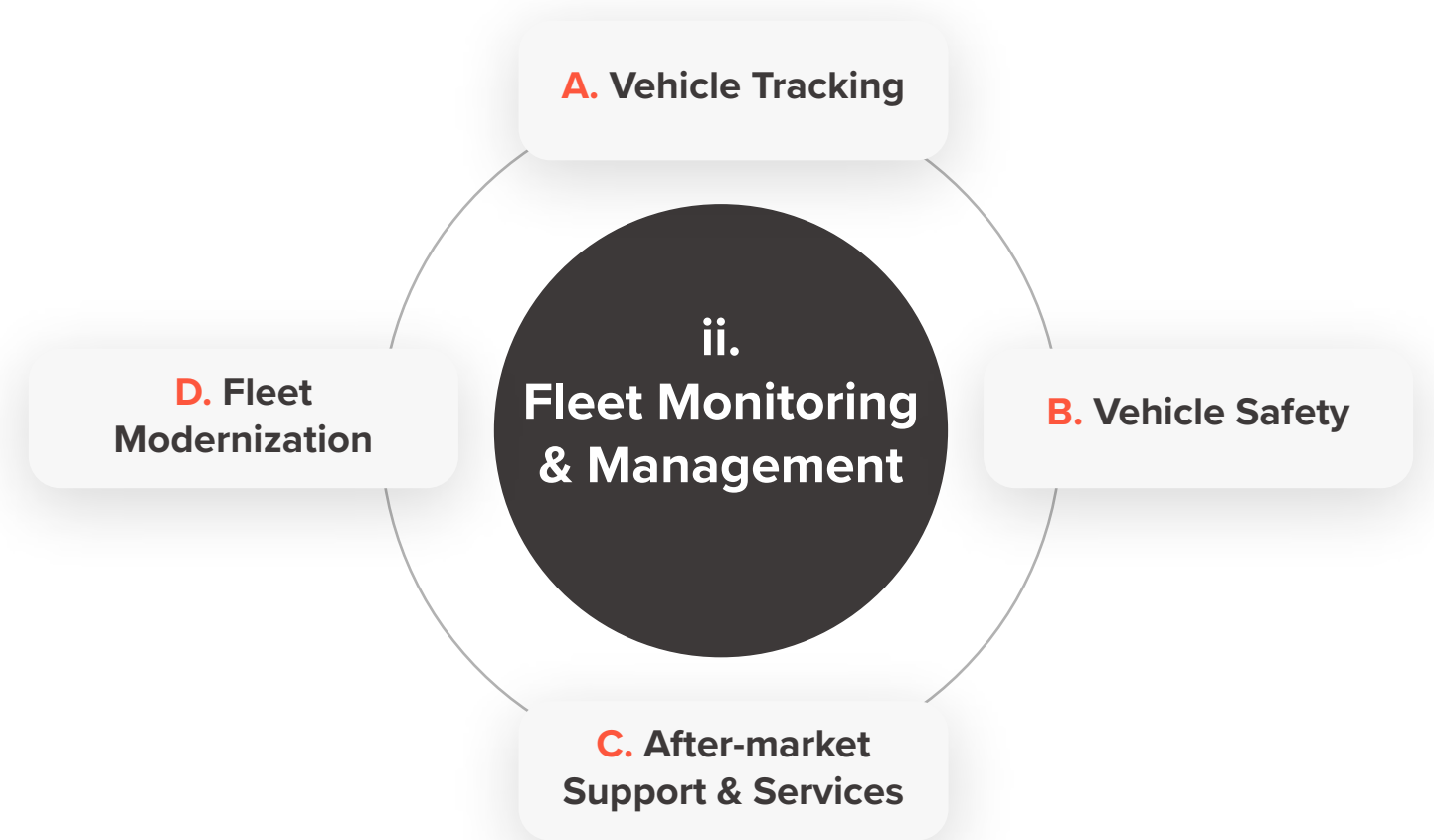
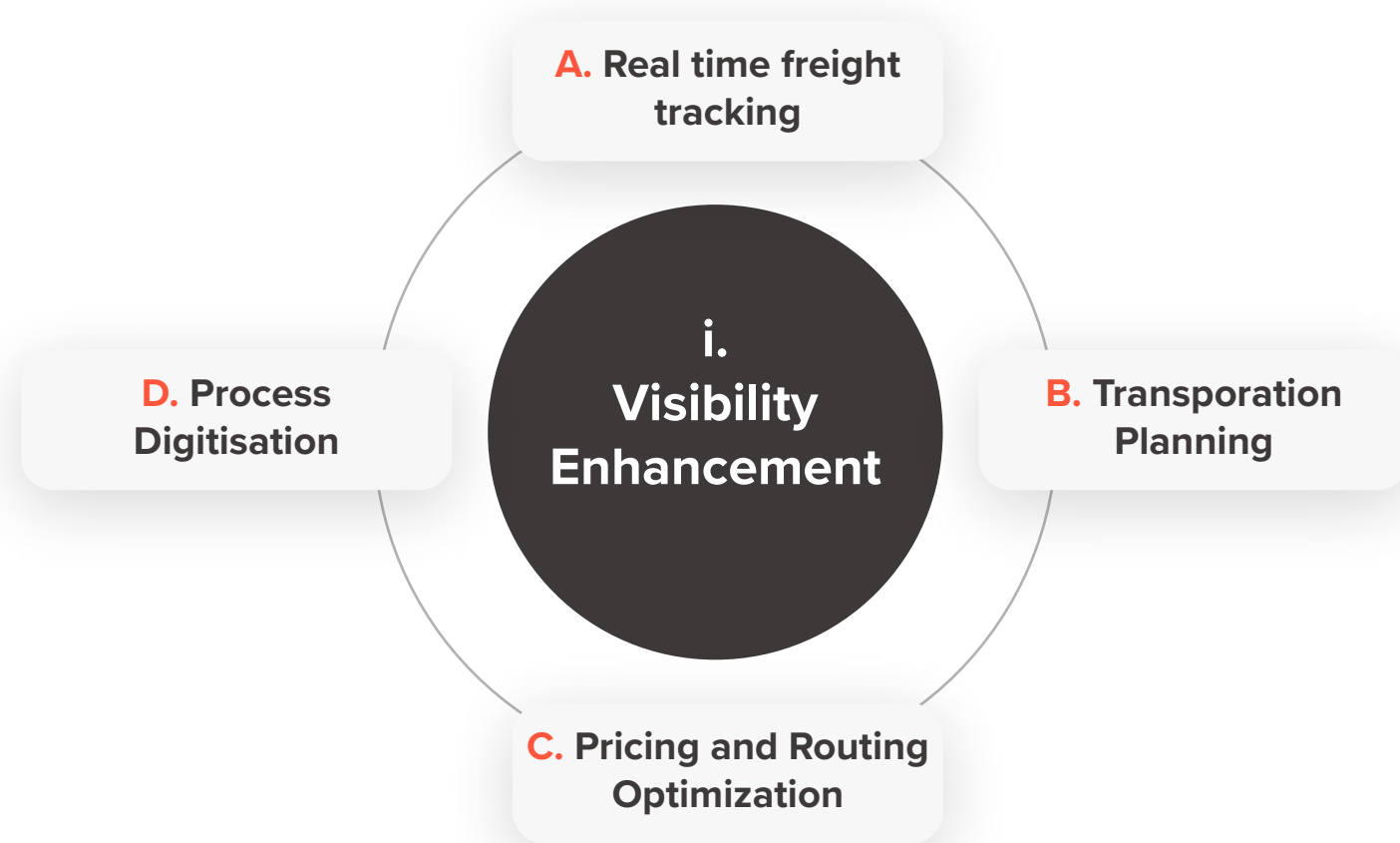
Shippers and consumers expect faster, flexible and cheaper delivery options, this increasing demand for convenience is driving a huge demand for specialized solutions across the value chain. Similar to industries like Retail and Travel, where digitization has played a major role in driving efficiency, the Logistics industry is primed for an extensive digital transformation over the next decade. IT will play a major role in creating digital processes for the interconnection and collaboration of all parties across the value chain which will make a key contribution to the success of logistics activities. Technologies like RPA will metamorphose back office operations. Global supply chain visibility will be significantly enhanced by utilizing IoT and Blockchain technologies while autonomous vehicles will eliminate the need for manual drivers.

Business models leveraging big data analytics will increase efficiency and drive the creation of sustainable supply chains. Traditional players should take note of these emerging threats from agile startups and figure out symbiotic synergies in order to stay relevant in the Logistics 4.0 Space.



Business Priorities

Sub-segments



From Sub-segments to Solutions In 3 Steps.



Startup Growth Stage Definitions

EMERGING:

Early stage startups typically at beta product stage and seeking investment capital

SCALING:

Typically funded, with a market ready product and revenue positive

MATURE:

Established product, exploring new growth markets and partnerships

i. Visibility Enhancement



A.
Real time freight tracking



IoT sensor based tracking



B.
Transportation Planning

C.
Pricing and Routing Optimization

D.
Process Digitization

OnAsset
United States
onasset.com
Offers a monitoring and tracking platform that forms transparent supply chains to drive business value and avoid risks
MATURE

Akua
United States
akua.us
A flexible IoT platform that provides persistent environmental monitoring and tracking solutions for intermodal cargo containers
EMERGING

Conexbird
Finland
[Conexbird.com](https://conexbird.com)
Offers cargo position, condition monitoring and data analytics services for the maritime industry
SCALING

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

i. Visibility Enhancement

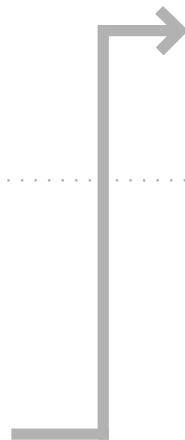


A. Real time freight tracking

B. Transportation Planning

C. Pricing and Routing Optimization

D. Process Digitization



Predictive forecasting tools



Fourkites

United States
Fourkites.com

End-to-end supply chain visibility platform that enables companies to track and manage their freight.

SCALING



Clearmetal

United States
clearmetal.com

Predictive logistics platform for decision support to drive efficient container shipping

SCALING



Intra

United States
intra.com

An electronic transaction platform, software and information provider for the ocean shipping industry

MATURE

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

i. Visibility Enhancement



A.
Real time freight tracking

B.
Transportation Planning

C.
Pricing and Routing Optimization

D.
Process Digitization

Price Comparison platforms

XENETA
Norway
Xeneta.com
Provides global sea freight market information and actionable data on shipping rates and actual transit times
SCALING

FLEET
United States
tryfleet.com
Offers a platform that links rates, automates bookings and documentation on a single platform
SCALING

iContainers
Spain
icontainers.com
Instant ocean freight quote, shipment monitoring and management platform
MATURE

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

i. Visibility Enhancement



A.
Real time freight
tracking

B.
Transportation
Planning

C.
Pricing and Routing
Optimization

D.
Process Digitization

**Integrated Transportation
Management Systems**



Neurored

United Kingdom
neurored.com

Provides a platform to manage relationships with suppliers, freight execution and carrier networks

MATURE



Freightos

Israel
freightos.com

Global trade platform with an online freight marketplace and international freight routing/pricing technology

SCALING



Shiphawk

United States
Shiphawk.com

Offers a Smart Transportation Management System that helps in automating workflows and run data-driven supply chains

SCALING

**Find more solutions on
GrowthEnabler Pii...**

www.growthenabler.com

ii. Fleet Monitoring & Management



A. Vehicle Tracking



On Board device based

B. Vehicle Safety

C. After-market Support and Services

D. Fleet Modernization

KeepTruckin
United States
KeepTruckin.com
Platform to help trucking companies manage fleets and driver logs
SCALING

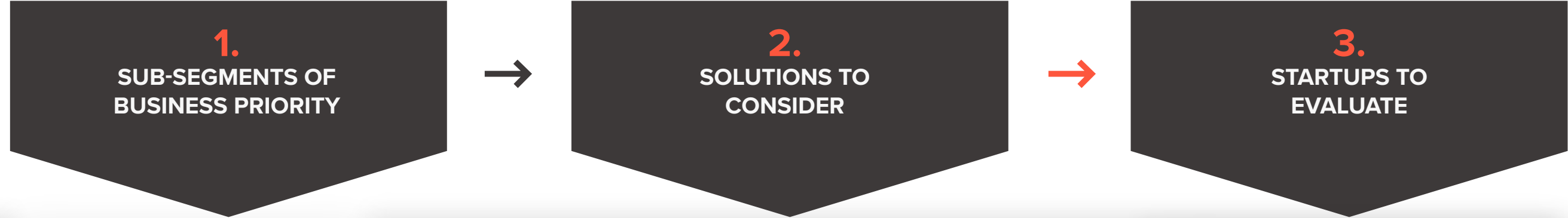
Automile
Sweden
automile.com
Software platform for real time fleet and asset tracking
SCALING

Spireon
United States
spireon.com
Fleet tracking and trailer management software with ELD compliance features
MATURE

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

ii. Fleet Monitoring & Management



A. Real time freight tracking

B. Vehicle Safety

C. After-market Support and Services

D. Fleet Modernization

Video and Application based Surveillance

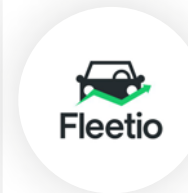


SmartDrive

United States
smartdrive.net

Video based fleet safety and transportation analytics platform

MATURE



Fleetio

United Kingdom
fleetio.com

Web-based Fleet monitoring and driver tracking platform

SCALING



Fleetup

United States
fleetup.com

Fleet Management platform with integrated Telematics, GPS and ELD applications

SCALING

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

ii. Fleet Monitoring & Management



A. Vehicle Tracking

B. Vehicle Safety

C. After-market Support and Services

D. Fleet Modernization

Spares and Support Marketplace



Smartequip

United States
smartequip.com

A Network that provides multi-party solutions for parts, support, warranty and other aftermarket services

MATURE



Tantalum Corporation

United Kingdom
tantalumcorporation.com

Connected Device based ecosystem of aftermarket services

SCALING



FMG

United Kingdom
fmg.co.uk

End-end to incident management solutions for automobile fleet management

SCALING

Find more solutions on
GrowthEnabler Pii...

www.growthenabler.com

ii. Fleet Monitoring & Management



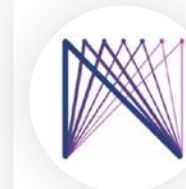
A. Vehicle Tracking

B. Vehicle Safety

C. After-market Support and Services

D. Fleet Modernization

Autonomous vehicles



Netradyne

India
netradyne.com

Computer Vision and Deep Learning based Video Safety solutions

EMERGING



Five.ai

United Kingdom
five.ai

Provides a complete software stack for autonomous vehicles

EMERGING



Cloudmade

United Kingdom
cloudmade.com

Offers a distributed learning platform that turns Connected vehicles to intelligent vehicles

MATURE

**Find more solutions on
GrowthEnabler Pii...**

www.growthenabler.com

Recommendations

Visibility Enhancement

Improving freight visibility and the holistic integration of the multiple nodes in the supply chain will result in increased efficiency and enhanced customer satisfaction. Ever-increasing internet penetration coupled with advances in predictive analytics can help achieve this. Here are a few ways:

- 1.** Partner with startups that leverage sensor driven technologies to provide real time freight visibility. Improved battery technology and ever-increasing connectivity are helping create low cost and globally connected tracking and monitoring devices. This can help in the mitigation of errors in real-time in addition to identifying areas of improvement.
- 2.** Leverage software platforms that integrate with Logistics partners like Terminals and Ocean carriers to predict delays and assess shipment risks. Utilization of AI algorithms to canonicalize freight data and delivering predictions that help companies manage their inventories can significantly enhance customer trust.
- 3.** Combine crowd-sourced data in conjunction with proprietary in-house data to determine best prices and optimal shipping routes. Advances in cloud computing can aid in real time analysis to generate actionable insights that can help in devising pricing strategies and ensuring asset capacity utilization.
- 4.** Embrace flexible cross company integration of participants and processes driven by API based technologies. Integrating with Transportation Management Systems (TMS) and Inventory management systems of shippers will help improve upstream and downstream visibility.

Recommendations

Fleet Monitoring and Management

Fleet Management as a function is shifting towards Mobility Management thereby playing a larger role in the overall value chain as compared to just maintenance of vehicles. With increasing penetration of IoT devices every asset can act as a source of data that can be leveraged. A few innovations companies can consider include:

- 1.** Leverage GPS and ELD based technologies to remotely monitor driver and vehicle performance. This can help in measuring asset utilization patterns and predict maintenance schedules pro-actively.
- 2.** Video surveillance and mobile application based safety tools can be used to ensure asset and driver safety. Insights can be leveraged to eliminate risky behaviour and improve driving skills, in addition to the exoneration of drivers.
- 3.** Utilize network based platforms to sourcing of spare parts, support and after-market services. Significant cost and time benefits can be realized by streamlining the procurement and installation processes.
- 4.** Consider Vehicle to Infrastructure and Vehicle to Vehicle communication technologies for modernizing existing fleets to ensure optimal utilization. Collaborating with or Investing in autonomous driving technology can help incumbents face future threats from tech giants like Google, Apple and Uber who have already made significant strides in the market.



Corporate - Startup Collaboration Initiatives

Top performing companies engage with Startups to drive digital business

DHL partnered with the Plug and Play Supply Chain and Logistics vertical venture fund to invest in AI and robotics companies.



Fedex is investing in autonomous trucks linked with Alexa.



UPS invested in Deliv, a same day delivery startup for E-Commerce and Brick and Mortar stores.



Improve Freight Transparency

Surpass Customer Expectations

Automate Manual Processes

Enhance Fleet Visibility

Corporate-Startup Collaboration

Reduce Transit cost

Increase Asset Utilization

Kuehne + Nagel partnered with Temasek to invest in early-stage companies in big data and predictive analytics, artificial intelligence, blockchain and robotics.



DB Schenker took a \$25 million stake in online freight booking platform uShip



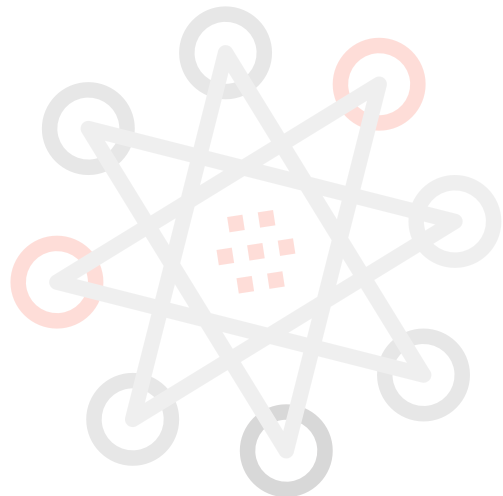
Verizon acquired Fleetmatics to expand fleet management and mobile workforce management solutions.



How to work with Startups?

Logistics

Startups bring critical innovation, problem solving and the potential of entirely new markets to Corporates. Innovation is high on the CIO agenda today; however partnerships that drive this innovation are becoming harder to find. Creating real change by fighting against static bureaucracy is one such stumbling block in the success of Startup-Corporate collaboration. Embracing new technologies and digital transformation of a majorly paper-based industry is a monumental challenge considering the rather conservative and risk averse nature of current incumbents. This has made the market leaders prone to disruption from Tech giants like Amazon and equally startups, with their highly scalable lean methodologies.



It is time for incumbent players to adopt a collaborative approach with emerging digital players to evolve and enhance their existing business models. Most Startup-Corporate collaborations fail due to multiple challenges from a cultural and technological standpoint. It is imperative that expectations from both sides be well-defined and corporates should leverage their existing expertise in dealing with regulations in collaborative projects with startups.

Close collaboration can be tailored to best serve the needs of the incumbent's business, however, it should not be a threat to the innovative culture of the startups. A thorough re-evaluation of traditional profit models is necessary with an emphasis placed on innovation driven KPIs. Developing a transparent approach about the scope and metrics of the project along with well-defined deadlines can help build a critical foundation for a successful proof of concept.

The ever changing customer requirements and changing market dynamics are driving Logistics Service providers to improve customer convenience. An expansion of their existing product portfolio with an emphasis on flexible and customizable offerings can be achieved by developing an ecosystem of digital partners who can augment their core offerings while complementing the legacy assets.

Find out more about GrowthEnabler Research Methodology

GrowthEnabler Research Methodology

Proprietary Research

INTRODUCTION

GrowthEnabler uses its proprietary research methodologies to analyse the business impact of disruptive technologies and digital innovations on the future growth of large corporations and their industries. GrowthEnabler applies its deep-data analysis tools, scoring logic and algorithms to create intelligence that enables senior executives to make informed business growth decisions. The GrowthEnabler Personalised Intelligence Interface (Pii) is an interactive platform that provides corporates the ability to Find, Select, Connect and Manage global Startups based on their business priorities and problems.

1. MARKET ANALYSIS



To create and report leading technology-related market trends and industry analysis with a focus on industry sub-sectors, real-life implementations, industry and market landscapes and competitor dynamics, GrowthEnabler analyses large sets of data and information aggregated from various private and public sources, including online databases, market reports, online surveys, journals, and in-depth phone interviews.

To further enrich the efficacy of analysis, GrowthEnabler undertakes formal and informal interviews and RFI's and surveys with key decision makers and executives in corporates, as well as founders and owners of Startups. Following this exercise, large volumes of data is categorised and curated, based on, industry and market drivers, risks, opportunities and challenges specific to an industry vertical or technology area, and then injected into a pre-configured regression model to forecast and predict market movements and trends.

2. STARTUP TECHNOLOGY LANDSCAPE & ANALYSIS



The Startup eco-system is built using an exhaustive primary and secondary research analysis model, led by dedicated team of tech analysts and subject matter experts (SMEs), who also use Machine Learning and Natural Language Processing (NLP) technologies for data mining and curation.

Primary Research – The Primary research data is sourced directly from GrowthEnabler Market Surveys, RFI's with Startups, One-on-One Interviews, Calls and Product briefings, including Startup and Client Registration Information available on the GrowthEnabler Pii platform.



Secondary Research – A team of Machine Learning and NLP experts scan thousands of private and public data sources using data scraping and crawling methods to extract relevant secondary data, which is then validated and verified using GrowthEnabler automated data-cleansing methods, industry and technology segmentation taxonomies and mapping protocols and core intelligence from pre-populated Startup profiles and reviews.



Analyst Validation – A team of Analysts and Subject Matter Experts validate both the primary and secondary data while using internal peer reviews to substantiate core assumptions and data points, and external discussions with senior decision makers to assess business relevancy, timing and need.



The major sources of Secondary research are:

- i. Global Startup websites
- ii. Data aggregators
- iii. VC and Investor portfolios
- iv. News Feeds
- v. Industry reports
- vi. Regional Company registration websites
- vii. Social Sources (Social Sites, Blogs, Articles, Media sites)

A total of 57 data-points and parameters are applied in analysing and predicting the growth potential and health of a Startup, including:

- i. Company information
- ii. Leadership Team
- iii. Business Model
- iv. Financial Strength/Funding/acquisition data
- v. Product Innovation - patent data and core features and functions analysis
- vi. Customer value & sentiments
- vii. Social Media and Branding coverage
- viii. Business Traction and progress

Out of the total 57, 30 parameters are classified under 5 broad categories used to calculate the GE Pii Score.

- i. Product & Innovation
- ii. Leadership Team
- iii. Market Traction
- iv. Financial Strength
- v. Social media and Branding



Further Resources:

01.

GrowthEnabler Tech Pulse Report
Logistics 2018

02.

GrowthEnabler Market Pulse Report
IoT UK 2017

Contact us for access to these reports:
www.growthenabler.com