



**BUSINESS SWEDEN**

# **BEYOND BOUNDARIES**

**HOW INNOVATION HELPS SECURE FUTURE COMPETITIVENESS  
- AND POSITION FOR GROWTH IN APAC**



# FOREWORD

## INNOVATION IS KEY TO COMPETITIVENESS AND GROWING GLOBAL SALES

The global marketplace is more accessible today than ever before. At the same time, business and product life cycles are growing shorter and market leaders increasingly struggle to stay relevant. Digitalisation has disrupted conventional industries and lowered entry barriers. How many Fortune 500 companies will still be on the list in 5 years? In this report, we make the case that companies' future competitiveness depends largely on how well their operations can adapt to constant change and equipped to leverage the power of international innovation ecosystems.

Take a moment to consider your strategy for technological innovation and international growth. How closely do your core R&D units and global sales departments work together? How can you make sure that your solutions are designed to meet the need of the largest markets of tomorrow? We suggest that internationalisation and innovation are mutually reinforcing processes, and that companies can accelerate their growth by implementing network-based organisations and closer consolidating R&D&I with the business development. In doing so, we argue that the linear export model and the traditional top-down innovation approach are relics of the past. Successful change makers tap into vetted networks to access best-in-class partners. In order to access external capabilities, companies need to adopt a more agile, network-based organisation.

Moreover, successful entrepreneurs focus on addressing global challenges and social needs. Such demand-driven innovation reduces time to market, lowers risk and creates a strong internal purpose, which is of particular importance in the fast-growing Asian economies. With China and India expected to jointly contribute to 35% of global output in 2050 – can you afford not to adapt your organisation and strategy?

A recent Business Sweden review of Swedish companies' innovation strategies, and actual R&D&I investments, indicates that the existing pace of adaptation to the ongoing paradigm shift is yet to pick up speed. It is our aim, that this report will not only be a call to action, but also provide a blueprint for how to align innovation and internationalisation strategy – allowing you to maintain market leadership and accelerate growth.

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Swedish Trade  
Commissioner to India

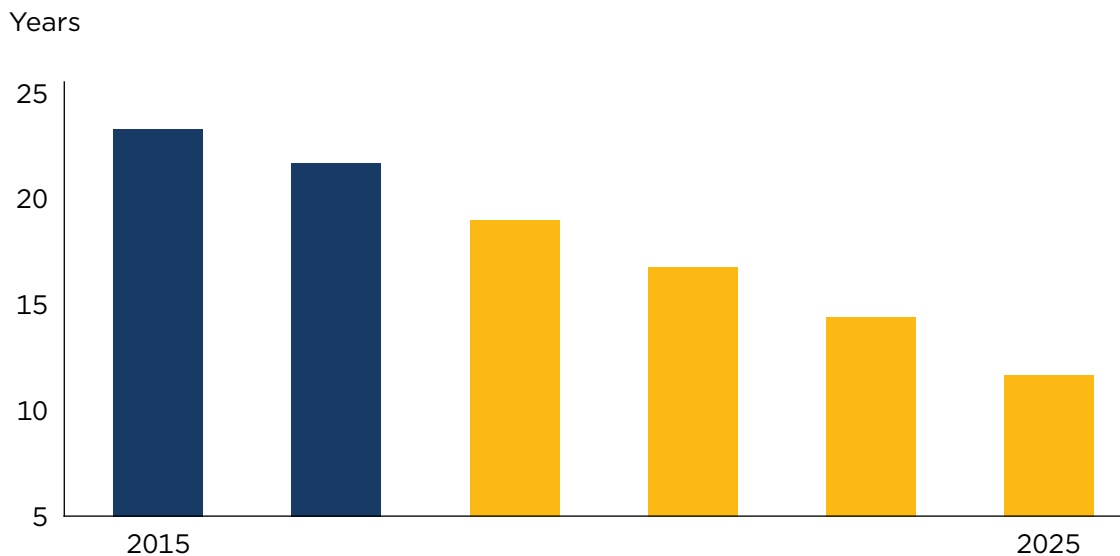
# FALL OF GIANTS: TODAY'S MARKET LEADERS FACE IRRELEVANCY

Innovative technologies and new business models are disrupting the status quo across markets. In this changing environment, incumbent firms are increasingly struggling to stay alive. A case in point: between 2007 and 2017, more than half of the S&P 500 were overtaken by new firms and knocked out of the race. Past performance does not safeguard future success, and odds are that today's top performers will lose their position in the next five years.

## INFORMATION FLOW: THE REAL GAME CHANGER

The change in business environment is fueled by accelerated information flows, which exponentially increases the generation of new ideas, shortens R&D lead time and enables novel combinations of existing capabilities. An ever-faster flow of information thus allows new players to wield more powerful arms and to pose greater threats for today's incumbents.

### AVERAGE COMPANY LIFESPAN\* EXPECTED TO FALL DRAMATICALLY



\*Expected average lifespan of S&P 500 companies



Following the revolution in information technology, the emerging business environment is underpinned by three global macrotrends: digitalization, connectivity and data.

- **Digitalisation** is driving information flow by transforming previously analogue information into cloud-based data and thus reducing the cost of data accumulation and processing.
- **Connectivity** has in turn expanded the possibility for information to travel and allows both people, devices and systems to intermingle in different contexts. Interconnectedness also transforms customer feedback to a potent source of input in the innovation process.
- Finally, the availability of qualitative, accessible and diverse **Data** has enabled new solutions to disrupt conventional industries and suboptimal processes.

These trends do not only act independently; they provide nourishment for each other to radically reshape the existing landscape.

## DRAMATICALLY CHANGING BUSINESS ENVIRONMENT

The new and fastmoving landscape holds three important implications for the future:

### 1. Increased speed of business

Natural business cycles are shortened as digitalization and connectivity reduces information lead time.

### 2. Distributed value creation

Decentralised data structures empower entrepreneurs, whilst the potential of combining capabilities increases cross-sectorial and international competition.

### 3. Lowered market barriers

Primacy of information and know-how over capital-intensive assets facilitates new market entries.

## CALL FOR NETWORK-BASED ORGANISATIONS

As the pace of knowledge creation rises, it becomes increasingly challenging for an organisation to control all needed resources and know-how. Hence, a new organisational model, designed for the network economy, is needed. In this new environment, coordinating capacity and access to external capabilities become key success factors.



TO THE LIGHTHOUSE:

# A NEW BLUEPRINT FOR ORGANISATIONAL EXCELLENCY

How long will the traditional model of economic value creation stay relevant? Not much longer, we assert. The traditional model follows a linear path connecting producer and consumer via intermediary steps of value addition. This model is ill equipped to handle the new network-based business environment, which rewards strategic agility and collaboration across sectors.

## MAXIMISE VALUE CREATION THROUGH THE NETWORK MODEL

Another approach to creating value is to view organisations as nodes in a distributed network, where the capacity for value creation is encapsulated in the number, strength and diversity of bonds to surrounding nodes (c.f. model on the right). The network model of value creation compels us to view the economy as a web of interlinkages between nodes (e.g. companies, suppliers, customers and intermediaries). In the network economy, products and services are created through synchronous efforts involving multiple actors, and value is maximised through these interactions by drawing capabilities from partners across the globe.

How well a company is able to form strong bonds and foster trustful relationships with its business partners and customers determines the efficiency of its interactions. In practice, networks operate at peak when the integrity of its members is unequivocal, and when the flow of information between them is unrestricted. Successful companies will therefore seek to cultivate an ecosystem that facilitates informal relationships and improves transparency in business transactions.

## ACCESS POTENTIAL THROUGH YOUR NETWORK

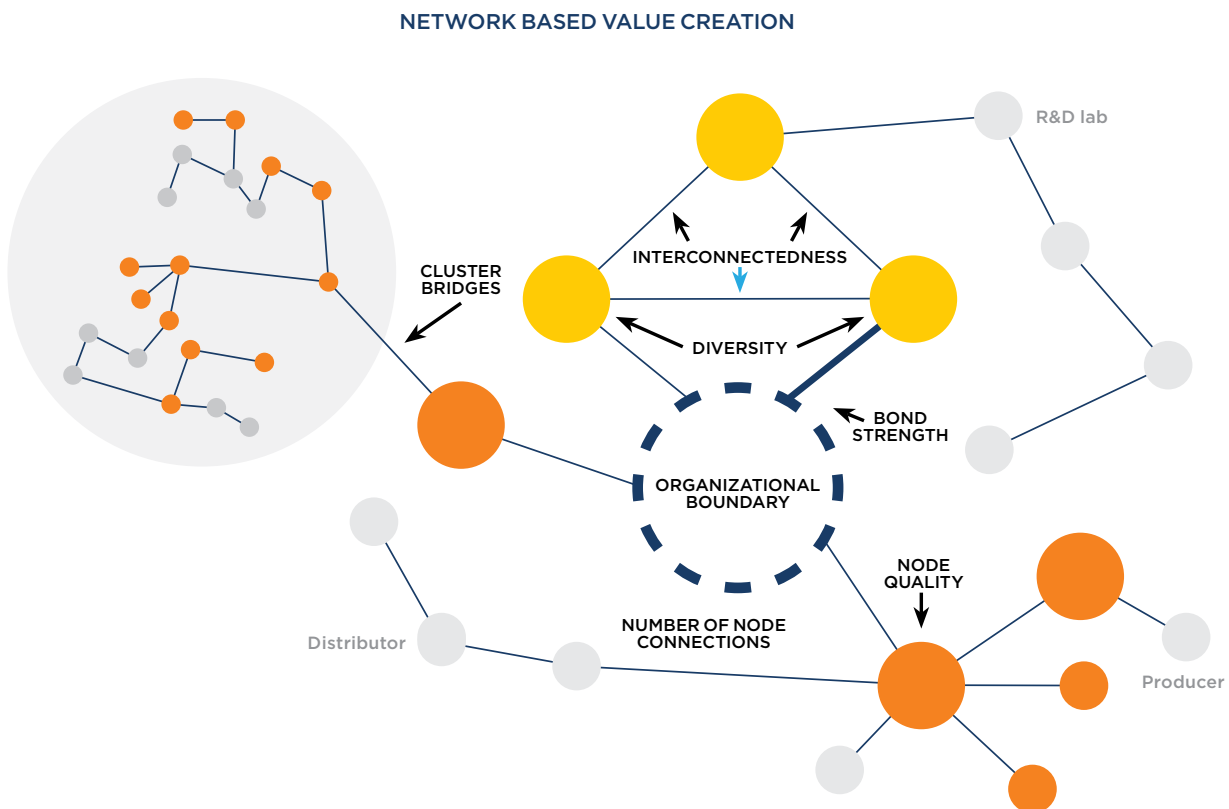
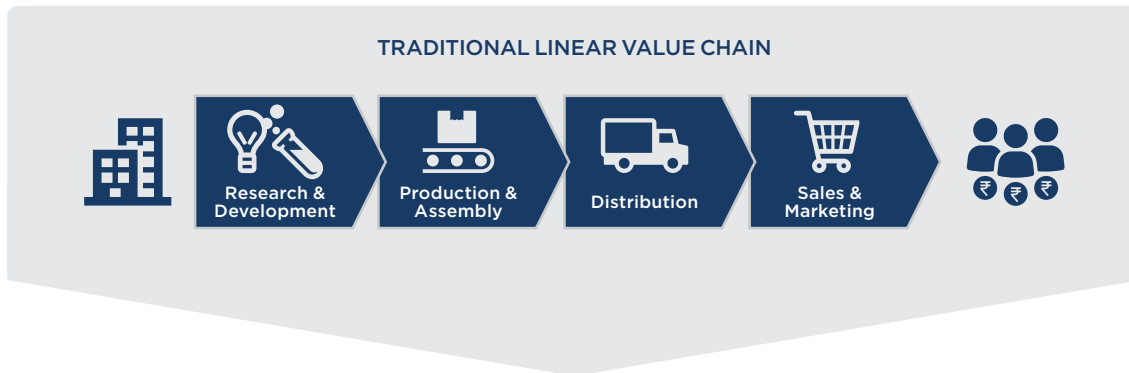
In the same way that it takes an ocean liner longer time to change course than it does a speed vessel, large firms often take longer than SMEs to react to a new environment and change of direction. In undertaking capital investments and amortisation plans, MNCs gain strategic commitment but eschew organisational mobility in ways that SMEs do not. By leveraging the network, SMEs can stay swift of foot, accessing capital-intensive capabilities and resources on demand. In this manner, network-based organisations reduce CAPEX by raising OPEX, and in so doing, ascend traditional entry barriers to challenge the position of incumbent firms.

Ideal network-based companies have only proximate organisational boundaries and demonstrate strategic agility. This enables them to navigate change by recalibrating their strategy as needed and by using the network to access resources and capabilities on demand. Leveraging the network in this way help them defer asset ownership, lower lead times and reduce costs. To achieve these benefits, companies need to consider;

- *Which relationships should they cultivate?*
- *How can they provide the best value to their business partners?*
- *Are they embedded in the right networks?*

The following pages expand on ways to take advantage of a network-centred model of value creation. We demonstrate that international network orchestrators capture the greatest value, that borderless organisations achieve competitive advantage, and that great innovators focus on social needs.

## SHIFT FROM LINEAR TO NETWORK BASED VALUE CREATION



### KEY SUCCESS FACTORS

1. **Bond strength:** Enable efficient information flow between network members
2. **Node diversity:** Ensure large pool of utilizable assets with complementing competences
3. **Cluster bridges:** Extend your reach to geographically and sectorially distant networks
4. **Purpose coherence:** Align the vision with your inner network to build pull-power



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Innovation and internationalisation are mutually reinforcing processes; companies can accelerate growth by implementing network-based organizations and consolidating R&D&I with business development.







## GREAT EXPECTATIONS:

# NETWORK ORCHESTRATORS CAPTURE GREATEST VALUE

### BUILDING NETWORKS CREATES MORE VALUE THAN BUILDING ASSETS

The greater your command over a network the greater your potential to capture value. A recent Harvard Business Review article suggests that network orchestrators create eight times the value of asset builders.

While the asset builder's value is tied to physical assets used to transform inputs into outputs, the network orchestrator's value is based on increased capabilities mediated through an extended international network. The orchestrator can activate a platform that allows peers to interact and share in the value creation on a global basis, ensuring scalability of the business model.

### NETWORKS ARE SCALABLE TO INFINITY

As gravitational force increases with mass; a platform's power of attraction increases with its number of users. A decisive aspect of the network model is therefore the potential of ideas to draw on economies of scale. Let's take an example. Booking a cab on an aggregator platform that has 1,000 drivers will not only get you a taxi in much less time, but also at a lower price, than hailing a cab on the street. As the platform grows in popularity, the advantages of scale created will attract more customers. This, in turn, attracts additional cab drivers, who can reduce their total cost of ownership by outsourcing their administration. The aggregator is thus able to spread the cost of infrastructure ownership over an ever-larger

amount of transactions, which allows for above-average profit margins.

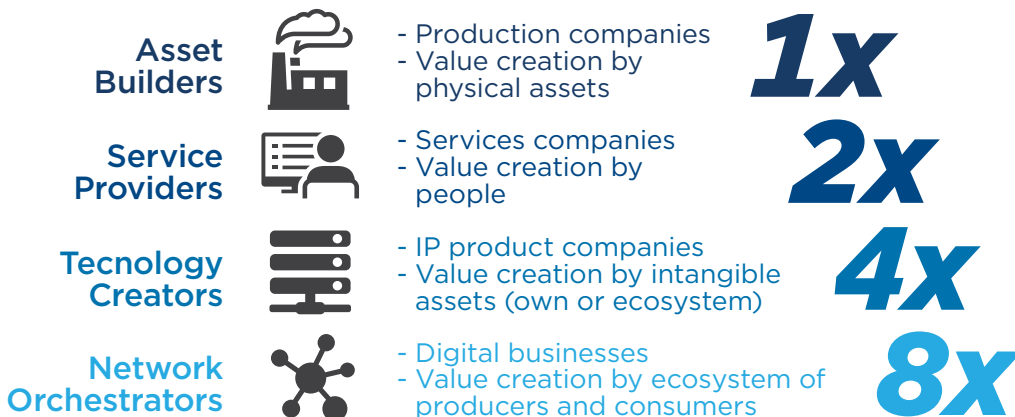
However, the difference between zero-sum and scalable business models is not only about the number of transactions; it's also about their quality. The platform owner undertakes the responsibility of infrastructure, among other things by administering payments, handling inquiries and resolving complaints. This mitigates risk and replaces mistrust by mutual good faith, as the transaction cost of business exchanges decreases dramatically.

### PEOPLE, SKILLS AND RESOURCES ARE ALL PIECES OF A LARGER PUZZLE

To understand which pieces fit with each other, companies need to become expert puzzlers. But it is not enough to know a good piece from a bad one; finding the pieces is sometimes the most challenging task of all. The best way to make sure that you find the pieces you need is to use sounding poles to detect those scarce assets that keep hidden from plain sight in the brushwork of the ecosystem. To be able to tap into the right pools at the right time requires the foresight to proactively provide value to your network. The reputation that precedes you by so doing will be amplified by the nodes in your network, and you will thus be able to receive signals from far beyond the reaches of your formal organisation.

Taking the idea of network integration further, we may soon have to redefine the idea of the organisation, as we usher in the days of the borderless organisation.

## REVENUE PREMIUM FOR NETWORK ORCHESTRATORS



# SWEDISH COMPANIES RISK FALLING BEHIND

To remain competitive in the fast-paced and decentralised global business environment, it is essential that companies pursue innovation by leveraging network dynamics. As indicated by our research, adoption of network-based innovation amongst Swedish companies has so far been slow. We suggest that this phenomenon merits greater attention and that action be taken to make sure that Swedish companies do not fall behind the global competition.

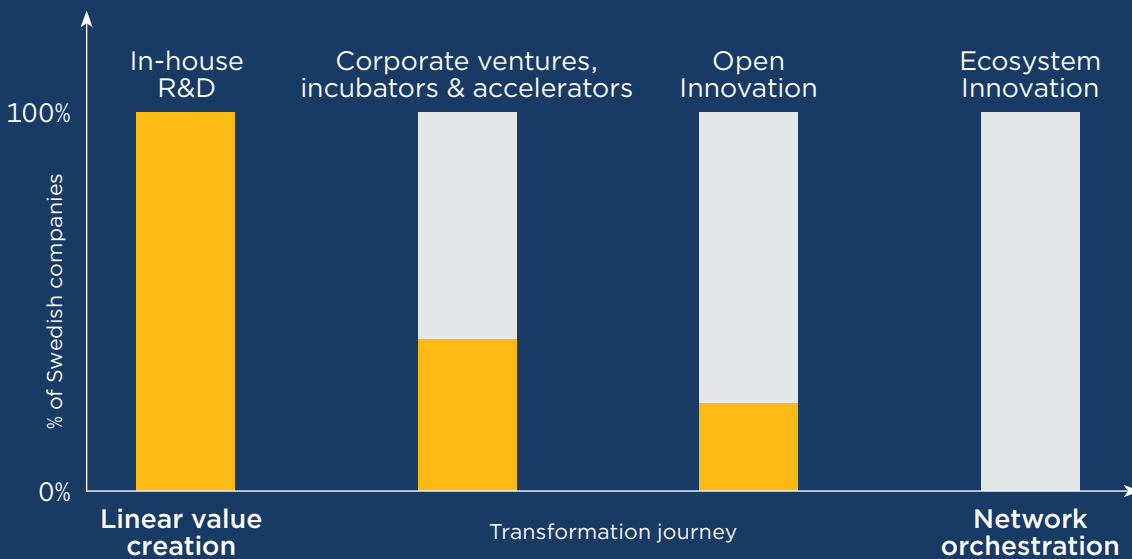
To shed light on this issue we reviewed the innovation strategies and actual R&D&I investments of the 30 largest Swedish export companies, who accounted for aggregated global turnover of SEK 3,800 billion in 2017. Our study reveals that Swedish innovation is overwhelmingly centred on in-house R&D. These lays bare an overconfidence in traditional models of innovation and value creation. While these 30 companies spend 4.1% of turnover on R&D&I, only a fraction of investments are allocated

to corporate venture funds, incubator programs and open innovation activities – on average, a mere 3.7% of R&D&I spending is allocated towards external collaborations.

Many of the companies claim that they pursue open innovation, but our research finds that these claims cannot be fully substantiated. Only one third of the companies have a corporate venture fund for disruptive technologies and business models, and less than one fourth operate accelerators/incubators or open innovation programmes. If this trend is not checked, it may threaten not only the future competitiveness of these companies, but also the competitiveness of the Swedish economy.

This report suggests to readers how Swedish firms can engage more proactively with ecosystem innovation to align innovation and internationalisation strategy.

## HEAVY FOCUS ON IN-HOUSE R&D&I REMAIN



# YOU COME UNDONE: SOMEONE ELSE ALREADY HAS YOUR NEXT BIG IDEA

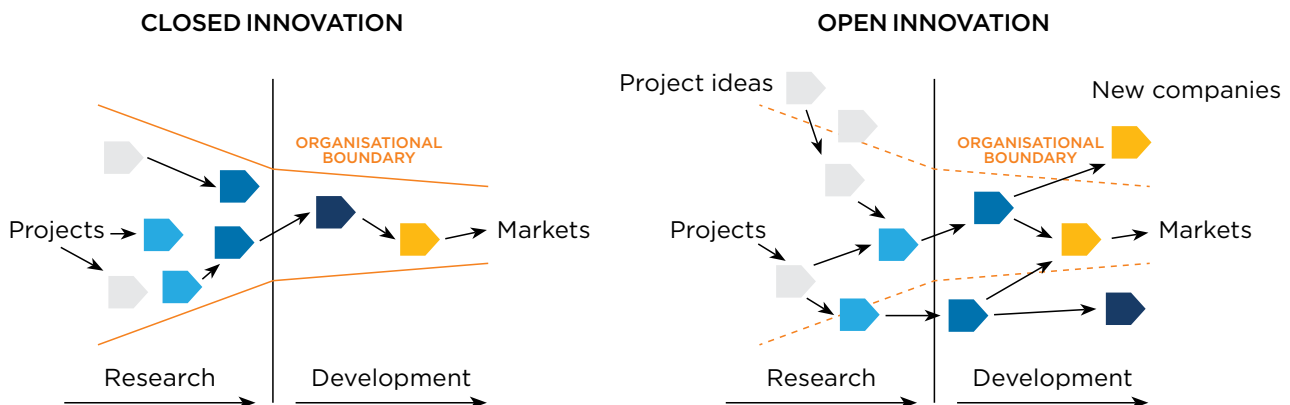
## BORDERLESS ORGANISATIONS WIN COMPETITIVE ADVANTAGES

The increased rate of business exchange and the emerging new order of platform-driven economies is making it increasingly challenging to maintain thought leadership. No one person, organisation or country can be cognizant of the budding of all new ideas, much less stay abreast of the opportunities emerging out of their blossoming. In this multi-farious garden of possibilities, the ability to identify and access best-in-class partners and to engage in multi-lateral value creation becomes a core competitive advantage.

While it may be challenging to adopt and utilise distributed value creation, mastering its fundamentals promises competitive edge. Observing the following principles will help you build and leverage a powerful network:

1. Pursue open innovation to co-create
2. Be picky about your partners
3. Decentralise R&D functions
4. Be agnostic of geography

## AGILE ORGANIZATIONAL BOUNDARIES REQUIRED FOR OPEN INNOVATION





The following paragraphs expand on each of these principles; why it is needed, what leading change makers are already doing and how you can do the same.

### **PURSUE OPEN INNOVATION TO CO-CREATE**

Significant synergies can be realised when information, ideas and skills are allowed to flow freely between individuals, companies and organisations. Relaxing organisational boundaries means that the membrane separating inside from outside grows thinner, inducing a higher degree of reciprocal interaction. Bringing in outside partners and ideas into the R&D&I process (e.g. through open innovation as illustrated to the left) is a first step towards distributed value creation. In practice, this can take the form of co-driving innovation and business development with customers, and system integrators.

### **BE PICKY ABOUT YOUR PARTNERS**

The larger and more diverse the pool of potential collaborators, the better positioned a company is to offer world-class products or services. But it is easy to get lost in the mire when voices call out from all directions. Without capturing someone's attention, how can you assume to access the resources they possess. Venture Capital firms, for instance, typically invest in only 1–2% of the opportunities presented. And getting access to a pitching slot in the first place is even harder. A strong network is characterised by a curated selection of its members, meaning that membership is regulated by recurrent vetting, whereby members are evaluated based on their merits and contribution to the network. Members of such a network therefore provide each other with due attention and give each other access to an extended

pool of competences. Accessing the resources needed is therefore a matter of being embedded in the right networks. In deciding which networks to manage, organisations should acknowledge the trade-off that exists between maintaining many weak relationships and fewer strong ones with high-quality nodes.

### **DECENTRALISE R&D FUNCTIONS**

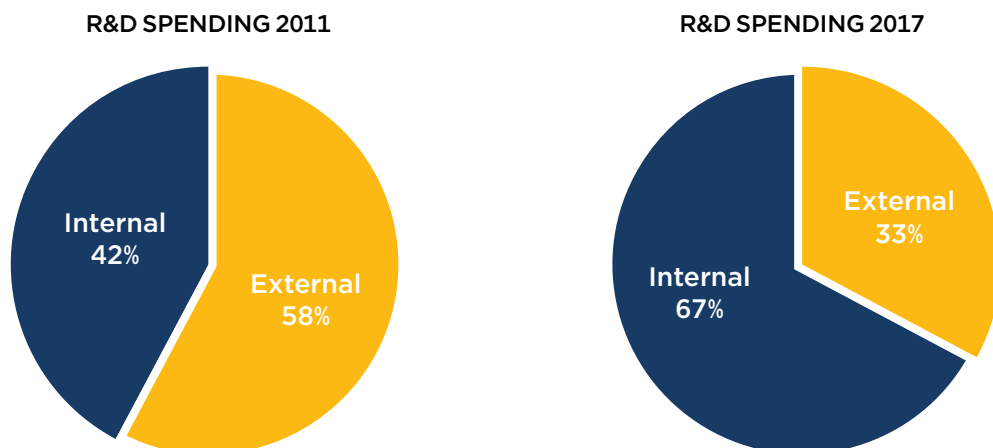
In the past, MNCs used to be centres of applied research, but they are now transforming into demand specifiers and administrators of external resources. Instead of consolidating R&D within an in-house department, technology-driven firms are embracing co-creation and employing coordinators to guide partners through the open innovation process.

The last decade has witnessed a shift from spending on in-house R&D to investments in external collaborations. The research-oriented pharmaceutical industry, always a frontrunner in international innovation partnering, saw the share of external R&D spending grow from 33% in 2011 to 58% in 2017, unequivocally suggesting the likely future direction of R&D.

### **BE AGNOSTIC OF GEOGRAPHY**

Managing an efficient business means disregarding national borders. This lesson was brought home to Swedish companies a long time ago. Sweden's 30 biggest exporters today focus on foreign markets, on average generating over 90% of their sales overseas. In the same way that markets have shifted to other countries, companies must now tap into global hotspots in order to access talent, creativity and technology. This suggestion is supported by the fact that the world's most globalised economies are also the world's most innovative. Network dynamics is thus the key to unlock the potential of both internationalisation and innovation.

## **BIG PHARMA INDUSTRY SHIFTS INVESTMENTS FROM INTERNAL TO EXTERNAL R&D**



## NETWORK BUILDING EQUALS VALUE ADDING

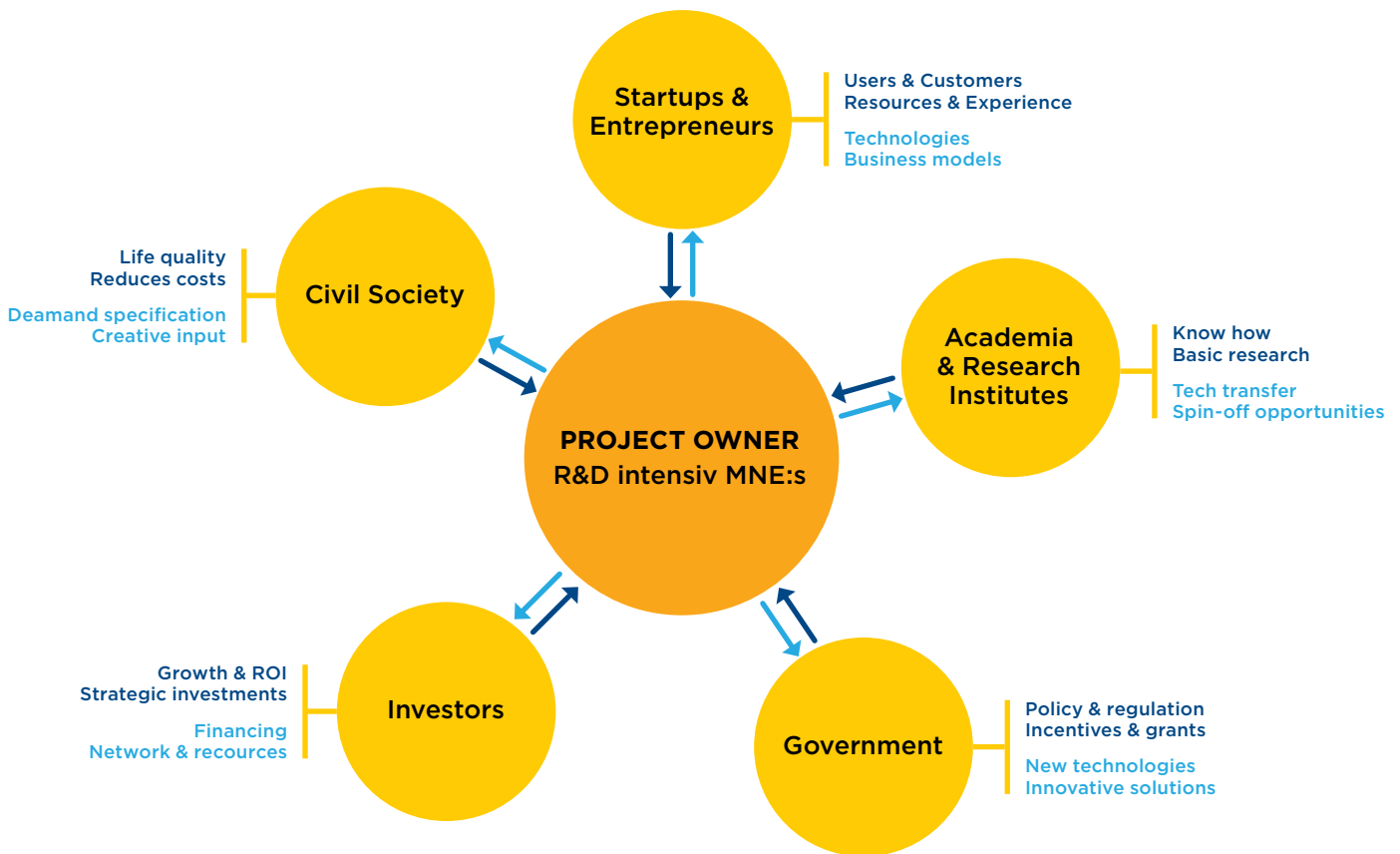
Building and managing effective networks require an understanding of motivations and incentives. This means that a project owner must know how to adapt a pitch for collaboration based on the unique wants of individual stakeholders, be they innovators, investors, academic researchers, government decision-makers or end-users.

The figure on the left demonstrates the utility that can be exchanged through ecosystem collaboration. For instance, start-ups and entrepreneurs seek end-users and access to resources, in return

providing innovative technologies and disruptive business models. Likewise, academic researchers can share research findings and knowledge in exchange for access to testbed environments and unique publishing opportunities.

The fact that each node in the network has different incentives sets the stage for positive-sum trade and utility maximisation. Gathering stakeholders around a greater purpose is one way for the network orchestrator to manage these (sometimes conflicting) incentives. The following chapter expands on the advantages derived by purpose-driven organisations and provides a blueprint for focusing on social challenges and needs to become a great innovator.

### PURPOSE DRIVEN PROJECT OWNER IS NODAL POINT IN THE MULTIPLE-HELIX INNOVATION ECOSYSTEM



## OPEN INNOVATION STRATEGIES: WHAT TO LEARN FROM CHINA'S ECONOMIC SUCCESS?

China's start-up scene is booming. A growing number of multinationals are running open innovation units in cities like Beijing and Shanghai to harness some of this start-up energy. Producers and entrepreneurs from all over the world have flocked to hardware accelerators in southern China, such as HAX and Seed, to benefit from the lead time and cost benefits of prototyping and manufacturing enabled via knowledge-sharing in an open-source hardware ecosystem.

Long before “lean entrepreneurship” was coined in Silicon Valley, Chinese companies were apt at launching minimum viable products and working closely with customers and users to iterate toward better products. Chinese companies often maintain team groups on the messaging platform WeChat, where members can report insights that they pick up when interacting with suppliers, customers and even competitors. The continuous stream of insights produced by such communication helps guide the company's strategic decisions.

Open innovation strategies have been an integral part of China's economic success, and Chinese companies have especially sought to follow two approaches.

**1.** Innovate by forming collaborations to enter supplementary value chains. Connected devices company Xiaomi, for example, takes minority ownership stakes in its manufacturers. Xiaomi and the manufacturer then work together by redesigning products to achieve Xiaomi's signature feel, adding connectivity with Xiaomi's digital ecosystem, and introducing rigorous quality control processes. Tapping into existing manufacturing capacity enables Xiaomi to quickly add new products to its range, from robot vacuum cleaners to umbrellas, at the same time removing the need for capital-intensive investments. The manufacturer, meanwhile, gains access to Xiaomi's distribution channels, brand and strong fan base.

**2.** Introduce open innovation based on platform thinking. By creating infrastructure and mechanisms that provide monetary returns to individuals and organisations, the platform strategy allows companies to move from service provision to opportunity facilitation. The news app Toutiao, for example, counts one million individuals and 140,000 businesses to its content contributors, thanks to an arrangement that gives the advertising revenue related to a news feature to the contributor of that piece. Live streaming has taken off partly due to a tool allowing the exchange of virtual goods; a mechanism that channels micro-payments from a large user base to a relatively small number of top contributors. Even Q&A platforms have motivated users to share knowledge by allowing micro-payments, effectively creating a marketplace for knowledge and turning answers into a traded good.

These open innovation strategies are not exclusive to Chinese companies. By identifying relevant ecosystems and getting “boots on the ground”, Swedish companies can tap into start-up ecosystems, adopt platform and complementary value-chain strategies, and co-innovate with local customers and users.



Tomas Larsson  
General Manager,  
Kairos Future

Kairos Future is a consulting and research company based in Stockholm and Shanghai that has been in the business of spotting trends and researching the future since 1993.



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**Ideal network-based companies have only proximate organisational boundaries and navigate change by using the network to access resources and capabilities on demand.**





# MAN'S SEARCH FOR MEANING: SUCCESSFUL INNOVATORS ADDRESS SOCIAL NEEDS

## GREAT INNOVATORS FOCUS ON SOCIAL NEEDS

How do you decide on which innovations are worth betting on? And how do you steer a loose network of partners to realize your vision? Addressing global challenges is a powerful strategy to win customers and become a more attractive partner. By focusing on social needs (e.g. UN Global Sustainable Development Goals, Paris Agreement), companies can formulate a strong purpose for collaboration, which makes it easier to manage organisations and networks. And it is per se a guarantee of a sustainable business model.

Other advantages of taking global challenges and people's needs as the starting point for innovation include:

- *Reduced risk by addressing pre-defined user cases. Matching a service with a real need ensures the soundness of a business proposition.*
- *A narrative that attracts partners by appealing to a strong purpose.*
- *Facilitates coordination of associated partners*
- *Augmented brand equity through active community engagement.*

Pursuing a vision that can be shared by many will also strengthen your organisation's ability to gain access to critical resources. This may manifest itself not only in policy dialogues and sales numbers, but also as well as in the quality of R&D&I activities. This, is so because communities, who may possess considerable tacit knowledge, will be more open to divulge valuable insights to a partner with whom they share a goal.

## LET INNOVATION GROW FROM THE GROUND

The top-down approach to technological innovation traditionally espoused by conventional engineering companies is beginning to lose its golden shimmer. Taking its place is bottom-up co-development of customer solutions. Being closer to the end-user helps companies set up sounding poles to gain market insights first hand and to build partnerships that enable growth. Demand-driven innovation seeks to integrate the end-customer into the development process, from demand specification to testing, which serves to reduce the time to market and lower the risk of failed commercialisation.

## BUILD TODAY THE MARKET OF THE FUTURE

Growth markets often differ significantly from what Swedish companies are accustomed to. Low margins and public procurement processes favouring lowest cost rather than lifecycle savings remain challenges – especially when addressing social needs for segments with lower purchasing power. Addressing global challenges nevertheless involves a long-term commitment to growth in emerging markets.

By developing solutions through frugal innovation, and by first and foremost addressing basic needs, companies will be in a position to leverage insights on a global scale when the sleeping giants awaken. India, for example, will be home to more than 20% of the world's population by 2030. Ignoring these giants is something most companies will not be able to afford.

A black and white photograph of a hand holding a glowing lightbulb. The hand is positioned as if holding the bulb from the sides, with the fingers visible. The lightbulb is illuminated from within, creating a bright white circle in the center. Inside this circle, there is orange text and quotation marks. The background is plain white.

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How do you  
decide on which  
innovations are  
worth betting on?

## A PASSAGE TO INDIA:

# MARKET ORIENTED R&D COLLABORATION IS BOTH A MEAN AND AN END

### THE SUN RISES IN THE EAST

Home to sixty percent of the world's population, APAC has become the global growth engine and economic centre point of the world. For multinational companies, success or failure in APAC directly impacts corporate performance and their future prospects. Despite the unarguable importance of developing products and solutions targeted for the growing Asian markets, the R&D&I models used by Swedish MNCs have thus far been poorly adapted to capture opportunities.

### INDIA PROVIDES INNOVATION OPPORTUNITIES

In line with cutting edge research on how to build spurring innovation ecosystems, India is currently building – and making available – large public data bases within prioritized sectors. The goal is to develop solutions not only for India, but for the next 6 billion people living in high-growth, developing countries. Thus, considering the case of India is enlightening. India is the world's fifth largest market and fastest growing major economy, bound to become the world's second largest market after China in 2030. Despite persistent growth, many million Indians still live below the poverty line, and most do not constitute prospective customers for imported premium goods. It is therefore not surprising that Swedish companies, geared towards driving innovation in premium segments, often struggle to find a market. Of the roughly 200 Swedish companies that are present in India today, most compete resolutely at the top of the pyramid for premiums that continue to shrink, diminished as they are by domestic competition.

### LOOK AHEAD TODAY, WIN TOMORROW

Companies often fail to fully grasp what India's lower and middle-income segments will become. It is in these segments that the greatest potential for future innovation exists. Adapting an offering through downgrading or downscaling products is an option, but it carries risks, for instance of damaging the global brand. A better alternative is to develop solutions through market-oriented R&D.

When considering emerging markets, Swedish companies should strive to move beyond the idea of homogenous western markets. They need to entertain the idea that innovating in India – for India – at the same time represents an opportunity to develop the global offering for other emerging markets.

### FIND PURPOSE IN SOLVING GLOBAL CHALLENGES

In 2018, India and Sweden signed an agreement titled Joint Innovation Partnership for a Sustainable Future, which affirmed a shared ambition to tackle global challenges. This mission has political and economic precursors; solving challenges, such as pollution, income inequality and unaffordable healthcare will impact many millions of lives. But addressing social needs also represents a business opportunity.

Companies that focus on addressing social needs are driven by a strong purpose, which helps gather consumers, partners, investors and other stakeholders around a shared vision. This helps companies secure the backing needed from government agencies and other institutions, which is often essential to navigate effectively through formal and informal ecosystems. Innovation in India is thus often seen as tool to solve challenges at a low cost, yet with advanced technology but with a large scale potential.



## A PARTNER FOR THE FUTURE

It is no coincidence that MNCs go to India to seek out testbed environments for disruptive technologies and business models. Offering great diversity in terms of climate, people and tastes, India is a heterogeneous country well-suited for piloting products and services bound for the global market. India, with its vibrant start-up community and English-speaking professionals, has a number of advantages as a destination for companies to build global market-oriented centres of R&D;

### 1. FRUGAL INNOVATION – COST OF INNOVATION IS LOW

India is well-known for its ability to develop frugal solutions. Frugal innovation seeks to reduce complexity and cost by discarding the dispensable features of a product. The fact that the Indian Space Research Organisation (ISRO) managed to send a spaceship to Mars at one tenth of the cost of a previous NASA mission is a testament to the fact that frugality need not imply inferiority. Neither is frugality about taking advantage of a low-wage environment. Rather, it is a way of thinking, and of trying to provide essential goods and services to consumers with low purchasing power. Developing solutions in India can help Swedish companies reduce the cost of R&D.

### 2. EXTENSIVE USER BASE – DATA IS ABUNDANT

India is home to a highly tech-savvy population, ideally suited to help companies design and test products. You can access and draw data easier and cheaper. The Indian population keep bank accounts and smartphones with data plans, engage with social media and have unique national identity numbers. This means that companies can draw on vast tracts of user information as inputs for data-driven analysis, even for research in artificial intelligence where huge amounts of data is needed to train algorithms.

### 3. ENTREPRENEURIAL SPIRIT

India's young entrepreneurs are bubbling with singular creative energy and zeal. India has recently emerged as the world's third largest start-up hub, and more engineers graduate every year in India than in China or the U.S. Tapping into this network allows companies to access unrivalled technological

expertise. This is particularly interesting for Swedish companies considering the acute deficit of skilled professionals in the Nordics.

## 4. GROWTH POTENTIAL

The potential for dynamic growth in India is enormous. An example to demonstrate this point is the unprecedented story of Reliance Jio, an Indian mobile network operator that disrupted the Indian telecom industry in 2016. Upon its commercial launch, Reliance Jio offered Indian customers one of the cheapest data plans available and free voice calls. By understanding and catering to customer needs, Jio was able to acquire 100 million subscribers in less than six months, becoming the world's largest mobile internet data provider within two years of launching.

## SHARPEN YOUR COMPETITIVENESS IN INDIA

The case of India presents us with two key takeaways for Swedish companies operating in emerging markets:

### 1. Start with defining the need

Adapting existing products or services to a market by stripping them of premium features can bring down costs, but risk producing solutions that are incompatible with actual needs. Instead, companies should begin by defining the challenges and constraints of the market, and treat this analysis as the starting point of R&D&I.

### 2. Leverage the local ecosystem

Accessing the right network is essential to establish and grow a business. Swedish mobile app start-up Truecaller, which saw its number of users skyrocket from 0 to over 250 million in less than three years, accelerated growth by securing an Indian investor partner, who served as a gatekeeper to local networks. Bridging existing networks is a good way of accessing resources and capabilities, and companies' ability to do so will determine their level of success in a market.

Learning from these takeaways is one way to align innovation and internationalisation strategy. Successful implementation of demand driven innovation and local ecosystem engagement will help Swedish companies to sharpen competitiveness and develop solutions for global markets.

# INNOVATION HOTSPOTS IN INDIA

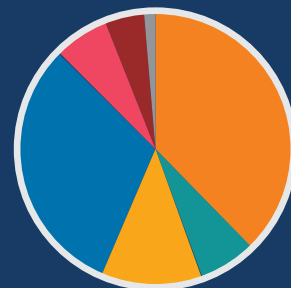
80%

of knowledge creation in India is centered on 5 innovation hubs



MUMBAI

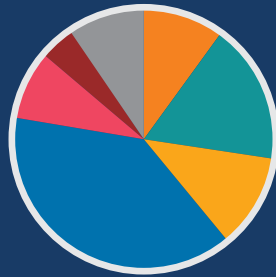
3,650 PATENTS FILED



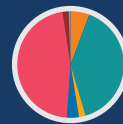
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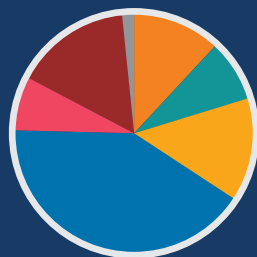
- INFORMATION TECHNOLOGY
- ENERGY & AGRICULTURE
- ADVANCED MANUFACTURING
- ICT
- LIFE SCIENCE
- NEW MATERIALS
- INFRASTRUCTURE



**DELHI (NCT)**  
1,900 PATENTS FILED



**HYDERABAD & TELANGANA**  
800 PATENTS FILED



**CHENNAI**  
1,750 PATENTS FILED

Estimates based on data from Swedish patent and registration office (PRV) and intellectual property India.

# 100 INDIAN INNOVATORS



## TRANSPORTATION

1. **Ola** Cab marketplace and car rental
2. **ZoomCar India** Self-drive car rental
3. **Savaari Car Rentals** Taxi aggregator
4. **Jugnoo** Auto-rickshaw aggregator
5. **redbus.in** World's largest bus ticketing platform



## HEALTHCARE

1. **Cloudnine Hospitals** Affordable maternity hospitals
2. **1mg.com** Online medicine store
3. **NephroPlus** Dialysis care provider
4. **Forus Health** Ophthalmology equipment
5. **Lybrate** Doctor consultation platform
6. **Axio Biosolutions** Haemostatic wound dressing
7. **DocsApp** Consultation app
8. **Health Vectors** Smart health analytics



## ONLINE PLATFORM

1. **UrbanClap** Lifestyle platform
2. **droom** Used cars marketplace
3. **Babajob** Informal sector workforce platform



## ENERGY

1. **SunBorne Energy** Solar power
2. **Ather Energy** India's first smart electric scooter



## ENTERTAINMENT

1. **Saavn** Bollywood music streaming
2. **DailyHunt** Top news app
3. **ZoomIn** Mobile photo printer
4. **Mech Mocha** Cultural games



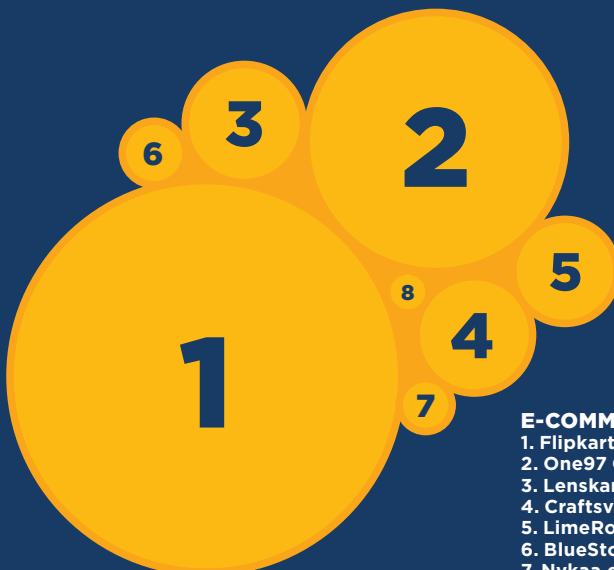
## MACHINE LEARNING

1. **InnovAcer** Population health management
2. **Haptik** Conversational AI platform
3. **Vymo** Marketing optimisation
4. **Arya.ai** Deep learning platform



## MOBILE INFRASTRUCTURE

1. **Indus OS** World's first regional OS provider



## E-COMMERCE

1. **Flipkart** Prime destination for online shopping
2. **One97 Communication** India's largest digital goods marketplace
3. **Lenskart** Online lenses marketplace
4. **Craftsvilla.com** Connecting local artisans with global customers
5. **LimeRoad** Women's fashion
6. **BlueStone** Custom jewellery
7. **Nykaa.com** Beauty products portal
8. **ZopNow** Online 3h delivery hypermarket



## SOCIAL & COMMUNICATION

1. **Hike** Mobile messaging app
2. **Nimbuzz** Messaging aggregator
3. **Tapzo** All-in-one PA
4. **SMS GupShup** Online SMS provider
5. **Roposo** Social TV platform





## EDUCATION

1. **Byju's** K-12 learning app
2. **TutorVista.com** Pioneering online tutoring
3. **MIPS** K-12 school edutech
4. **iProf Learning Solutions** Digital education library
5. **Topp** Entrance exam assessment



## BIOTECHNOLOGY

1. **Perfint Healthcare** Image-guided intervention
2. **Vyome Biosciences** Resistant pathogen treatment
3. **Medgenome Labs** Next gen sequencing platform



## DELIVERY SERVICES

1. **Zomato** Restaurant discovery and ordering app
2. **Pepperfry.com** Cash-on-delivery e-tailer
3. **Swiggy** Food ordering app
4. **Grofers** On-demand online groceries
5. **Delhivery** Fulfilment and logistics



## REAL ESTATE

1. **CommonFloor** Real estate portal
2. **OYO** Virtual hospitality brand
3. **Treebo** Budget hotel chain
4. **Shubham** Informal sector housing loans
5. **NoBroker** Free-to-use online broker



## LOGISTICS

1. **NuvoEx** Reverse logistics
2. **Rivigo** Super-express logistics service
3. **Shadowfax** Crowdsourced delivery platform
4. **LogiNext** Field workforce optimiser



## DIGITAL ADVERTISING

1. **Quikr** Online classifieds
2. **Just Dial** India's local search engine
3. **Vserv.mobi** Full-screen ad network service
4. **Synup** Local marketing dashboard
5. **Cashkaro.com** Cashback & coupons site
6. **MoEngage** User analytics and engagement



## ENTERPRISE SERVICES & SOFTWARE

1. **Netmagic Solutions** Managed services provider
2. **IMImobile CX**
3. **Microland** IT infrastructure
4. **Tejas Networks India** Data networking
5. **Power2SME** SME buying club
6. **Chargebee** Recurring bill automation



## GAMING

1. **Hungama** Digital media
2. **Moonfrog Labs** Casino games
3. **Octro** Mobile gaming platform



## TRAVEL & LEISURE

1. **MakeMyTrip** Online travel company
2. **Urban Ladder** Furniture e-tailer
3. **Cleartrip** Travel aggregator
4. **Ixigo** Travel search engine
5. **Livspace** Interior design automation
6. **HolidayIQ** Holiday information sharing portal
7. **Furlenco** Furniture rental
8. **Plackal - Maya** Women's health tracker



## TELECOM

1. **Knowlarity** Cloud telephony
2. **Bolt IoT** IoT machine learning
3. **Apalya** Global OTT platform

## FINANCIAL SERVICES

1. **Mobikwik** Consumer and business payments
2. **Capital Float** SME working capital financing
3. **Ezetap** SaaS payment provider
4. **Suvidhaa** Franchise financial services
5. **ClearTax** Income tax e-filing
6. **FundsIndia** India's top mutual funds platform
7. **NiYO Solutions** Payroll digitalization
8. **Razorpay** Online payment gateway
9. **Chillr** India's first multi-bank mobile payment app
10. **KredX** Invoice discounting marketplace
11. **JUSPAY** World's first mobile payment browser
12. **Mswipe** Consumer and business payments

## THE PILGRIM'S PROGRESS:

# INNOVATION AND INTERNATIONALISATION STRATEGY ALIGN

As discussed in previous chapters, it is becoming more and more important for companies to access and leverage external resources. Tomorrow's titans will build networks that they orchestrate to combine competencies and capture the greatest value.

At the same time, momentum is shifting eastwards. As a result of population growth and economic boom in emerging markets, APAC is cementing its role as the strategically most important geography, both from a market and an R&D perspective.

## THE UNNATI WAY

Our blueprint for aligning innovation and internationalisation suggests that a decentralised and demand-driven strategy is best suited for the network economy. We call this the UNNATI way.

Our philosophy proposes that organisations build powerful networks and combine external competences to create sustainable competitive advantage.

To achieve this, the UNNATI way is based on six key principles:

### 1. Business mobilisation

Based on market-orientation and user case-driven R&D&I

### 2. Sustainable development

Addressing global challenges in line with the UN Sustainable Development Goals and the Paris Agreement

### 3. Disruptive technology

Encompassing broad ecosystem engagement and combining external capabilities of best-in-class partners

### 4. International collaboration

Ensuring co-creation with and sustaining strategic commitment of global stakeholders

### 5. Network leverage

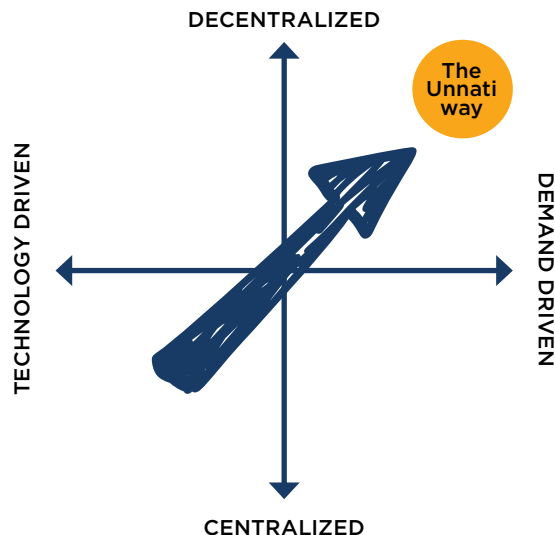
Utilising trusted and vetted nodes to access critical resources from the innovation ecosystem

### 6. Frugal innovation

Developing solutions for the growing middle market through local testbeds

Driving innovation, the UNNATI way helps you adapt to quickly changing business environments and maintain market leadership while strengthening your presence in growth markets.

## THE UNNATI WAY: BRIDGING INNOVATORS TO ADDRESS GLOBAL CHALLENGES



\* Unnati means progress in Hindi

# THE ROLE OF VENTURE CAPITAL IN INTERNATIONAL INNOVATION ECOSYSTEMS

There are three ingredients required for innovation and entrepreneurship to flourish.

- 1. Availability of capital**
- 2. Advice, mentoring and guidance from knowledgeable and experienced people**
- 3. Membership to networks that provide access to markets, technologies, etc.**

Business angels, that is successful entrepreneurs “who’ve been there, done that”, play a vital role in innovation, not only by re-investing their personal funds, but also by providing domain expertise, mentoring, advice and access to their business networks. VCs provide the growth capital needed for ventures to scale up before PE funds and/or public markets became viable sources of funding.

In India, entrepreneurship has become the flavour of the day. The Government has realised that start-ups are key to enterprise and development, not only for creating employment and economic growth, but also for finding innovative solutions to address many of challenges India faces in affordable healthcare, education, agricultural productivity, clean energy, etc. It has taken a slew of measures to encourage and support the entrepreneurial revolution, and entrepreneurs have responded in kind, making India one of the top three start-up hubs in the world.

When I founded the Indian Angel Network (IAN) 10 years ago, we saw 200 deals and struggled to make two investments in a year. Last year, we saw

10,000 deals and made an investment every fortnight! IAN has now become the largest angel group in the world, with 450+ members, operations in 6 Indian cities and in the UK and Israel. We recently launched a VC-fund to invest in start-ups alongside the angels. With all the things happening in India right now, this is only one example of the many things we are doing to drive entrepreneurial growth.

I do believe that both Sweden and India would benefit greatly by increased networking and collaboration between their entrepreneurial ecosystems. Swedish entrepreneurs possess technology and solutions that address major market needs in India. They can raise money from Indian angels and VCs, who can help them scale their ventures in India before they go to other markets. Indian start-ups can in turn use Sweden as the hub from which they launch their European and global expansion.



Saurabh Srivastava  
Co-founder and Past Chairman  
of NASSCOM and founder  
of Indian Angel

# CONCLUSION

We are witnessing a dramatic change, where the rate of business exchange is going up and where companies are struggling to stay relevant. In this new world, governed by constant idea generation, digital interactivity and global technology transfer, becoming a market leader can only be achieved through collaboration.

The market leaders of the future will be network orchestrators who skilfully combine external capabilities to capture the greatest value. To remain relevant, companies will need to adopt a network organisation. Investing in strong coordination capacity and an engaging narrative will be key to access relevant stakeholders and govern the flow of information.

Besides knowledge partners like academic researchers and the start-ups, the end-user is becoming an ever more integral part of the R&D&I process. One way of implementing demand-driven, bottom-up innovation is to address global challenges and social needs. Companies that succeed in transforming customers into a source of innovation capital will be able to reduce their time to market, lower their risk exposure, augment their brand image and create a strong purpose.

Only few firms operate according to these principles today. Amongst Sweden's 30 largest exporters, the transition from a linear to a network-based organisational model has lagged markedly. This provides an excellent opportunity for innovators to gain global competitive advantage and position themselves for growth. Aligning internationalisation and innovation strategy will help early movers excel in R&D&I collaboration and to propel global growth.





Can you afford  
not to adopt your  
organisation and  
strategy?





# GLOSSARY

## **Attention gap**

Humans access more information than can be processed every day. With the increasing amount of available information, the attention gap is growing.

## **Business lifecycle**

The natural phases that a company goes through as it evolves over time. The most critical stages are establishment, growth, expansion and maturity.

## **Capability**

A resource or competence that add productive value to the company. Capabilities can be internal or external and can be accessed on demand.

## **Challenge-based innovation**

A bottom-up problem-solving method, focused on social needs. As opposed to technology-driven innovation, it builds on incremental improvement of existing solutions.

## **Circular business model**

Contrary to the traditional notion of linear business model process, a CBM model allows production, consumption, distribution and feedback to occur simultaneously.

## **Cluster synergies**

Synergies arising out of the fact that a group of similar things are positioned or occur together.

## **Digitalisation**

Digitalisation is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities. It is the process whereby a company becomes a digital business.

## **Disruption**

An interruption to the usual way that an industry, a business, a system, a process, or an event functions.

## **Incubators**

A business, organisation, or a team that helps start-ups develop by providing services such as management training, office space, and financial and technical services.

## **In-licencing**

Business arrangement in which one company gives another company permission to manufacture its product at a specified fee.

## **Innovation ecosystem**

The large number and diverse nature of participants and resources that are necessary for innovation, as well as the physical and virtual infrastructure needed to connect nodes within the ecosystem.

## **Internationalisation**

The process of increased involvement of enterprises across national boundaries, including growth of operational and sales activities.

## **IoT**

A system (Internet of Things) that connects computing devices, digital machines, and objects, through unique identifiers that facilitate the sharing of information.

## **Mass market**

The market for goods produced in large quantities.

## **MNC**

Multi-National Enterprises typically have >250 employees and engage in value-adding activities in at least three countries.

## **Multiple helix**

Collaboration between government, academia and business – triple helix – plus VC, NGOs and civil society.

## **Network dynamics**

The status of networks changes over time. Input into networks result in non-linear responses. The flow between different nodes in a network is defined by system optimisation.

## **Network orchestrator**

Network orchestrators create a network of peers where participants share in value creation. The role of the orchestrator is to ensure the reach, trust, and user-friendliness of the network.

## **Open innovation**

A distributed innovation process based on purposively managed knowledge flows across organisational boundaries.

## **Open-source project**

Open source refers to a collaborative project which design is made available by the designer for use or modification as the users see fit.

## **Platform economy**

Platform businesses are media that let others connect to it. It requires an external ecosystem to generate complementary product or service innovations.

## **R&D and R&D&I**

R&D stands for Research and Development; R&D&I includes the additional component of Innovation.

## **SME**

Small- and Medium-sized Enterprises typically employ <250 employees. The term also includes start-ups.

## **Urbanisation**

The gradual shift in population from rural to urban areas and increase in proportion of people living in urban areas.

# ABOUT THE REPORT

Business Sweden India is spearheading the transition from linear business development to network based innovation partnering. Based in New Delhi, the authors of this report are international export consultants who on a daily basis help Swedish companies to access capabilities of best-in-class partners in the world's fastest growing large economy. The authors have combined their experience from working in the field with cutting edge research on innovation ecosystems and network dynamics to provide you with a new blueprint on how to secure future competitiveness and position for growth in APAC and beyond.

# AUTHORS

This report is co-authored by Carsten Grönblad, Jakob Mökander, Jesper Bernhardsson and Sandeep Sampla.



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SAMPLA**

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