

Executive Innovation Insight

Personalised technology intelligence support for executives

▶ As a business leader and senior executive, you make decisions that determine your company's direction, future, profitability, competitivenessand survival

....in a rapidly changing environment

....with hungry competitors trying to steal your lunch

▶ Emerging technologies can be disruptive....

....for all companies in all industries including yours

▶ Think 'strategic business impact, opportunities, threats and risks'

▶ You need to know which emerging technologies are of strategic importance to you (...and they may not be what you think)

....how technological innovation drives disruption

....whether you will be disrupted, or if you can be a disruptor

.... and then make decisions and take action

▶  ...while at the same time there are a myriad of other issues

demanding your time and urgent attention.... (scary, right ?)

▶ Now just imagine.... if you had access to a

personalised technology intelligence support service

....designed to keep you *personally informed* about the strategic business impact, opportunities, threats, risks and options presented by emerging technologies to your company

....with regular strategic updates and interactive decision support

....configured to suit your work style and preferences

....anytime and anywhere (....across the globe)

DeltaHedron®'s Executive Innovation Insight

Personalised technology intelligence support

Technology is a force multiplier, often at the heart of a company's core competence and competitiveness

All companies rely on technology
...as do their customers, suppliers and competitors



All technologies change ...some incrementally and slow, others disruptively, radically and fast

The dynamics of technological change drive innovation and emerging technologies

Strategic business impact

Opportunities, risks and threats for all companies ...including yours



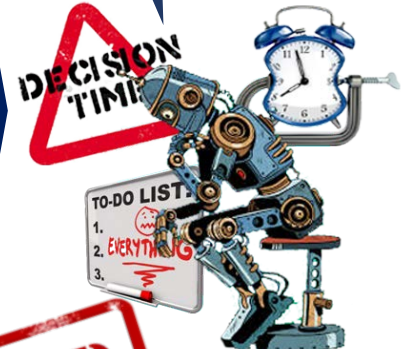
Technology intelligence support

Regular updates on relevant emerging technologies

Assessment of strategic impact, opportunities, risks and options

Regular strategic dialogue discussions

Interactive decision support



DeltaHedron®'s Executive Innovation Insight

Personalised technology intelligence support for executives, business leaders and decision-makers

DeltaHedron now also offers consulting services in international law, political risk and legal compliance



Why is this really important and why does it require your attention?

- As a business leader and senior executive, why should you be concerned about the impact of emerging technologies on your company ?
- Is that not something ‘someone else’ should worry about ? (No..!)
- Do you understand the strategic impact that emerging technologies will have on your company and industry, and which emerging technologies will be disruptive? Or if you can be the disruptor ?
- Technology intelligence is important, right? But are you getting the technology intelligence you require to support your decision-making, when you need it ?

“Technological change... is important if it affects competitive advantage and industry structure...[it] is one of the principal drivers of competition”
Michael Porter

Strategic impact of emerging technologies

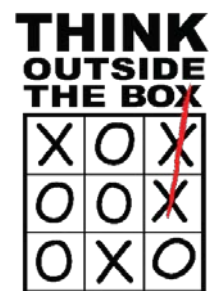
- Emerging technologies and the dynamics of technological change have a *strategic* business impact on companies and industries – they present *strategic* business opportunities, risks and threats to *all* companies and industries... including yours.
- As a business leader and C-level executive, you operate on that strategic level. Your decisions determine the company’s direction, profitability and competitivenessand its ability to survive.
- The impact of emerging technologies is one of many factors which you need consider. It should not be done in isolation but within the broader scope of the corporate [innovation] strategy. However, to neglect or abdicate a strategic view on emerging technologies and not to take proactive action can be a fatal mistakedon’t ‘fumble the future’.

“... the disturbing regularity with which industrial leaders follow their core technologies into obsolescence and obscurity...we should not be surprised then, that very often radical innovations come from ‘outsiders’ and industry leadership changes hands”

Jim Utterback

Disrupted industries – ‘the wave of creative destruction’

- The dynamics of technological *change* is the driver of innovation. Technologies are continuously evolving. They are constantly being improved to be ‘better, faster and cheaper’, making yesterday’s model obsolete. Some evolve at a gentle and incremental pace, others change rapidly. From time to time the technological, business and societal landscapes are *disrupted* by radical innovations...
....the ‘wave of creative destruction’ brings in the new and sweeps away the old.
- One or more emerging technologies typically underpin a disrupted industry. A disrupted industry is characterised by new value propositions, new business models, new skills requirements, new logistics and new procurement chains. There are new market entrants and new market leaders, often coming from unexpected quarters, different technological sectors and companies with their roots in other industries.
- At the same time, disruptions also destroy the established structures, triggering the demise of old technologies, labour markets, jobs and skills and eventually also companies and industries who have built their business on the old and obsolete technologies – this is the ‘wave of creative destruction’.



THINK OUTSIDE THE BOX

Remember these ?



Recognise these ?



What about these ?



... because they are probably disrupting your business even as you read this

Technology intelligence to support strategic decision-making

- Tracking the development of emerging technologies lies at the heart of technology intelligence to manage and mitigate *innovation risk*. It is much more than ‘a casual scanning of blogs from time to time’. Instead, it requires a systematic and consistent mining and curating of information, and then detecting, interpreting and analysing the signals - which are often weak, faint and not obvious.
- The key is in analysing and interpreting the intelligence from *your* company’s viewpoint (rather than in a ‘general or popular sense’) – what does it mean for you and what is it really telling you?
- Businesses are usually aware of most technological developments in their direct area of interest (...right?). However, very often the disruptive developments may come from an area which would not normally be in your field of view. Are artificial intelligence, drones, blockchain, 3D printing, 5G/6G, robotics and augmented reality, for example, disrupting your company and industry – even as you read this? How do you know this (either way) ?
- Technological disruptions also very often result from the interaction of a combination of emerging technologies with one another and innovations from other fields, rather than just a single ‘new technology’. Technology intelligence must connect the dots and keep track of the impact that emerging technologies may have on one another.



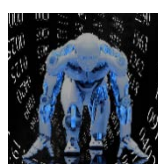
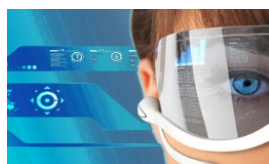
That is why DeltaHedron® continuously scans a wide spectrum of emerging technologies, their applications, the industries they impact on and the underlying cross-cutting themes. We are constantly searching for the broader trends and patterns, links and interactions as well as the signals – and how all of this may impact on your company.

Are you getting the technology intelligence and decision support you need?



- There is a **bewildering array of emerging technologies** out there. It is difficult to keep track of all the developments in real-time.
- You are busy**. Even though you recognise the strategic importance of technology intelligence, there are a myriad of other issues you need to attend to as well, all at the same time – all urgent and important.
- However, it is important for you to **know which emerging technologies** (or combination) will **impact on your business**.
- You need to **exploit the opportunities** and **mitigate the threats** presented by emerging technologies – the **risks** are **real, ubiquitous, significant** and **dynamic**.
- You need to have the **right decision support** to make strategic decisions regarding the emerging technologies.
- You need **technology intelligence** that can support *you* to understand the **evolving technological landscape and envision your company’s future**, to formulate the **right questions and assess options...** and you require this in a format when and how you need it.
- Technology intelligence for business leaders is not about the technical details and physics** in the first instance – it is about **supporting you to make better decisions regarding the impact that emerging technologies and technological change** will have on your company.
- It is about the **strategic leadership required to create value and gain competitive advantage through innovation**.

There is no excuse for not doing your homework. The answers are not in the back of the book.



Executive Innovation Insight

Personalised technology intelligence support for executives, business leaders, decision-makers and board members

Adding value – imagine a personal technology intelligence service that...

Delivers

- Delivers a consistent, relevant and timely stream of technology intelligence covering a wide range of emerging technologies that have the potential to disrupt your company and industry - or enables you to be the disruptor.
- Continuously monitors a wide spectrum of emerging technologies on a continuous basis – not only those technologies which are of immediate interest to you, but also those which might be outside your field of view and can have disruptive implications for your company in the future.
- Regular strategic dialogue regarding the emerging technologies, their impact, opportunities, risks and options for your company - with interactive decision support.

Understands

- Your business, your company and industry, your vision, your strategy and your company's opportunities and threats. It is about building a longer-term relationship with you.
- Your world as a business leader and senior executive.
- Your personal objectives, pressures and pain points as well as your personal preferences and working style.
- The technologies upon which your company, customers, suppliers and competitors rely and how they are evolving - underpinned by a deeper understanding of technology, engineering, science and innovation.

Has experience and knowledge

- A broad-based understanding not only of technology and engineering, but also the dynamics of technological change, technology trends and emerging technologies as well as the process and management of innovation.
- Delivered by people who have significant leadership and senior management experience - people who have been CEOs and C-suite executives.
- Access to a global network of technology and innovation experts.

Supports you

- Saves you time and resources.
- Contributes to improving your effectiveness, efficiency and productivity.
- Provides a personalised service, configured to suit your working preferences and (busy) schedule.
- Brings an external perspective and is a sounding board with independent technology advice.
- Is nimble, flexible and able to adapt the technological spectrum covered as your requirements and interests change.
- Understands and respects the confidential nature of the relationship with you.



You have just described the essence of DeltaHedron®'s Executive Innovation Insight service, designed to provide personalised technology intelligence support to you



"I accost an American sailor and inquire why the ships of his country are built so as to last for a short time; he answers without hesitation that the art of navigation is every day making such rapid progress that the finest vessel would become almost useless if it lasted beyond a few years"

Alexis de Tocqueville, *Democracy in America*, 1840

How do we do it ?

DeltaHedron® is a UK-based business consulting firm with a global reach, specialising in the management of technological innovation with a focus on the strategic business impact, opportunities and risks presented by emerging technologies and the dynamics of technological change.

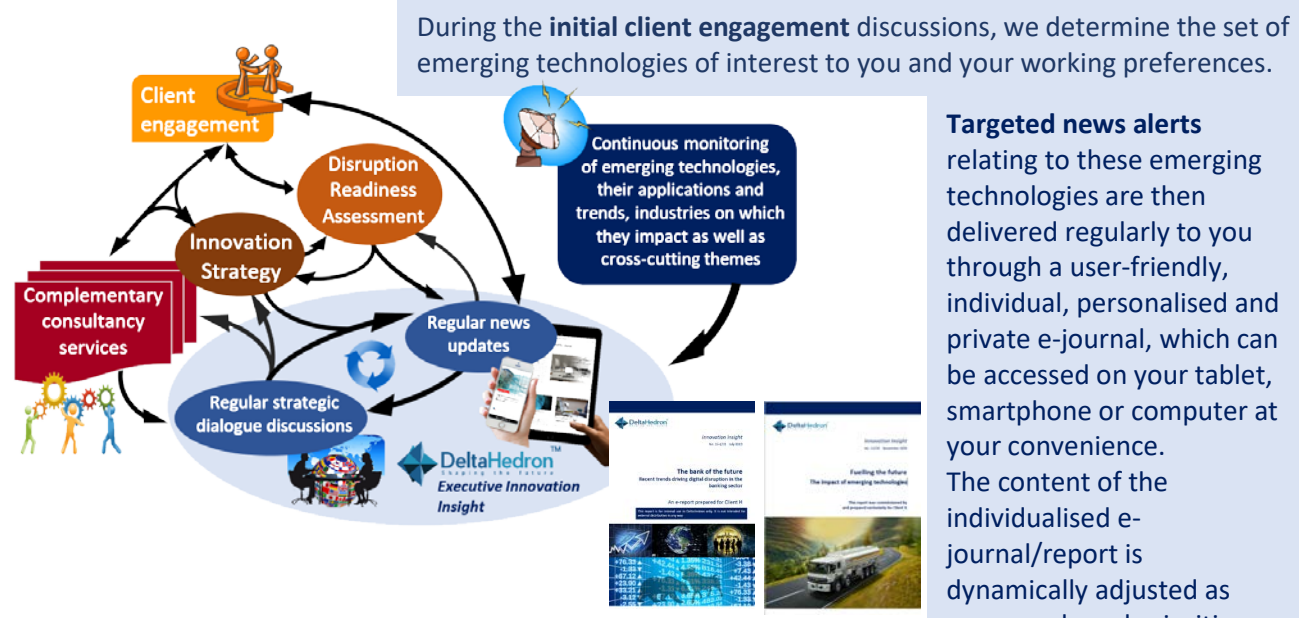
- DeltaHedron scans a **wide spectrum of open sources** on a **continuous basis**, covering a **broad spectrum of emerging technologies**, their **applications** and **impact** on a diverse range of **industries**.
- DeltaHedron has developed **proprietary software systems** that support the **data mining, curating, filtering** and **analysis** of the technology intelligence. We then **select information, news and alerts** which are of **specific interest to your business** and industry – as well as emerging technologies which would **not normally be in your field of view** but have the potential for significant future impact on your business.
- **Core competences:** Our **analysis** is underpinned by our **expertise base** which includes **engineering, technology, innovation management, risk management** as well as **strategy** development and execution, complemented by our **world-wide network of associate experts**.

“DeltaHedron® is a company with an engineering soul, an innovation mindset and a business outlook”



Configuring Executive Innovation Insight to suit your requirements and preferences

Executive Innovation Insight provides a flexible *personal* technology intelligence support, which is configured to suit your working preferences, requirements and schedule - ensuring that you have timely and continuous technology intelligence support to make informed decisions.



Regular strategic dialogue one-to-one discussions with a dedicated DeltaHedron consultant via phone, video link or in person. This enables you to interactively discuss the strategic business impact, opportunities, risks and options presented by the emerging technologies identified in the news alerts, relevant to your company and your responsibilities in the company.

Beyond Executive Innovation Insight....



Building on the basic *Executive Innovation Insight* service and our client relationship, DeltaHedron® is well placed to provide additional consulting services and undertake complementary assignments and consulting, either on an ongoing basis or as one-off assignments.

These can, for example, include:

- Regular e-reports, summaries and analysis of recent technological developments and trends, from your company’s perspective.
- Consultancy regarding broader aspects of the management of technological innovation and the management of technology.
- A ‘Disruption Readiness Assessment’, which assesses the technology reliance and the risk of your company and its industry being disrupted by emerging technologies. This assessment is also useful as an input into the corporate risk management and audit processes.
- Inputs to corporate strategy development, including scenario development.
- Special projects, competitive intelligence assignments and research, as well as facilitation of access to experts, scholarly papers and conference proceedings.
- Presentations to boards, management, staff, clients and conferences.
- Executive education and supporting the establishment of in-house capacity.

“... the most dramatic mistake a manager can make is to assume that there is no improvement - technological or otherwise - that can be made in a product or process...

Managers who understand how they participate in the process of technological change have a powerful advantage, especially if they recognize and pursue innovation as a process of company renewal”

Howard and Guile

Consulting clients

Current and former consulting clients of DeltaHedron and its consultants include companies in the information and communications technology (ICT), mining and minerals, industrial, steel, energy, construction and the built environment, electronics, defence, health, food and beverage, paper and pulp, retail, agriculture, logistics, financial, industrial, media, tourism, chemical and consulting sectors, as well as universities and higher education institutions, training boards, science councils, government departments and municipalities.

References
 These people and organisations were not our clients

“Everything that can be invented has been invented”
Charles Duell, Commissioner of the US Patent Office, 1899

“Television won’t be able to hold on to any market it captures after the first six months. People will soon get tired of staring at a plywood box every night”
20th Century Fox, 1946

“This ‘telephone’ has too many shortcomings to be seriously considered as a means of communication” **William Orton, President of Western Union, 1876**

“The Americans have need of the telephone, but we do not. We have plenty of messenger boys”
William Preece, British Post Office, 1876

“There is no reason why anyone would want a computer in their home” **Ken Olson, President, Digital Equipment Corporation, 1977**

“There’s no chance that the iPhone is going to get any significant market share” **Steve Ballmer, CEO Microsoft, 2007**

“There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new order, this lukewarmness arising partly from fear of their adversaries ... and partly from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it”

Niccolò Machiavelli



Follow



Follow DeltaHedron’s public *Innovation Impact* e-journals by typing bit.ly/Innovation_Impact and bit.ly/Innovation_Smart_Cities into your web browser

A selection of areas continuously monitored by DeltaHedron®		
Emerging technologies	Applications	Industries
3D/4D Printing and scanning Artificial Intelligence (AI) Machine Learning, Deep Learning Artificial Reality (AR), Virtual Reality (VR) Mixed reality (MX) Automotive and mobility Autonomous, hybrid, scooters, ebikes Urban air mobility Electric, petrol, diesel, hydrogen, battery Basic sciences Astronomy, bio/chemistry, physics Mathematics, statistics, geology Biotechnology Blockchain Cryptocurrencies Bots Robotics, automation, chatbots, cobots Robotic Process Automation Biometrics, voice/facial recognition Computers and computing Quantum computing, edge computing High Performance Computing, memory Data Big data, analytics, business intelligence Cybersecurity, data protection Data science Digital and ICT Mobile, cellular, cloud, wireless, wifi, lifi Broadband, 5G/6G, VOIP Software, SaaS, APIs, digital twins Drones Electronics and photonics Antennas, radar, lidar, LoRa, sonar Microwave, IR, microelectronics Emerging and smart technologies Energy Batteries, storage, renewables, fuel Electric, fossil, oil/gas, nuclear, hydro Hydrogen, solar, wind, tidal, geothermal Imaging Holograms, photography, video Internet of Things (IoT) Industrial, IxOT, sensors, RFID Materials Building, chemicals, bio, graphene, nano Metals, metallurgy, plastics, self-healing Ceramics, perovskites Wearables	Asset management Protection, tracking Anti-poaching Cities and communities Real estate Smart cities Smart home, office, factory Customer experience Consumers, UX Digital identity Authentication, identification e-Privacy, GDPR Environment Carbon emissions Climate change, conservation Water, marine, oceans ESG Fraud prevention Anti-counterfeiting Games, toys Geolocation, mapping Navigation, GPS, tracking Health Dental Digital health Diseases/medical conditions Health and safety Hospitals, homecare Mental health, psychology Pandemic impact Pharma, medicine ICT Data centres Enterprise systems Phones, tablets, apps Internet, online, web Search Engine Optimisation Management/governance Software development DevOps, low-code, no-code Telecommunications Legal, IP and patenting Maintenance Marketing, branding Mobility Packaging Workflow X-as-a-Service (XaaS)	Aerospace Agriculture, agritech, viticulture Food and beverage Animals, crops, plants, fisheries Lab grown, 3D printed food Arts and culture Built Environment, construction Constructechs, housing Facilities management Infrastructure Chemical, biochemical Defence Education (schools and higher) Edtech and Corporate learning Energy and utilities Engineering Entertainment, music Fashion, textiles Financial, banking, investment e-Payments Fintechs, insurtechs Insurance, actuarial Health, pharma, cosmetics ICT Logistics, procurement Supply chain Manufacturing Maritime, marine, oceans Shipping, ports Media, journalism, publishing Social media Mining and minerals Philanthropy, CSR Professions Accounting, Auditing Engineering, Health, Legal Public sector, digital government Retail, consumerism Safety Security and policing Service industries Sport, exercise, leisure Telecommunications Tourism, travel, hospitality Transport, infrastructure Air travel, airports, vertiports Public transport Rail, road, hyperloop
Business impact and cross-cutting themes		
Trends, signals and future thinking Digital transformation Disruption Dynamics of technological change Societies and communities Generational impact World of work and employment Freelance, gig economy, WFH/remote HR management, recruitment, training	Risk management Innovation management Business models/platforms Corporate culture Incubators/accelerators Science and techno parks R&D, technology transfer Ventures, start-ups and entrepreneurship	Fourth Industrial Revolution Leadership and management Change management Decision-making/support Ethics and values National and regional interest Innovation systems/policy Competitiveness Economic impact

© Copyright DeltaHedron® Ltd 2023. All rights reserved

Contact DeltaHedron® to discuss how we can provide you with personalised technology intelligence, decision support and strategic dialogue about the emerging technologies that will have an impact on your company and industry

