

ABOUT THE AUTHOR

Matthew Griffin, multi-award winning geopolitical advisor, leadership coach, and Futurist, and 15 times author of the smash Codex of the Future series, is described by his clients as a "Walking encyclopedia of the future" and a "Futurist polymath." Matthew is the Founder and Futurist in Chief of the 311 Institute, a global Futures and Deep Futures advisory looking up to 50 years out, as well as the World Futures Forum and XPotential University - two philanthropic organisations whose mission it is to solve global inequality and the world's greatest challenges.

Regularly featured in the global media including the AP, BBC, Bloomberg, CNBC, Discovery, Forbes, Khaleej Times, RT, the Telegraph, ViacomCBS, WIRED, and the WSJ, Matthew's ability to identify, track, and explain the impacts of hundreds of exponential emerging technologies and trends on global business, culture, and society is unparalleled.

Recognised as one of the world's most reknowned futurists, disruption, foresight, and strategy experts Matthew is an international advisor and keynote speaker who helps the world's most respected brands, governments, investors, NGO's, and royal households, explore, envision, and shape our collective future.

BE BOLD. **MAKE FIRST CONTACT.**





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Deloitte.



























A LETTER FROM OUR FOUNDER

MATTHEW GRIFFIN

WE LIVE in extraordinary times, in a world where individuals, organisations, and technology can impact the lives of billions of people and change the world at a speed and scale that would have been unimaginable just twenty years ago.

We also live in a world full of challenges, and a world where all too often negative news gets amplified at the expense of good news, and where tales of hope, inspiration, and positivity get drowned out and lost in the noise. It's no wonder therefore that today more people are more anxious about the future than ever before. And, arguably, a society which believes it's marching towards the darkness, rather than the light, has a poorer future than one that doesn't. Hope, however, is all around us and it's our purpose to light the way so all of us, people and planet, can prosper.

EXTRAORDINARY!

Peter K., EMEA Managing Director ACCENTURE

TES TIM ONI ALS

THANK YOU EVERYONE!

#FUTURENOW

ASTOUNDING!

Peter B., COO AON

SUPERB!

Isaac H., Country Manager GOOGLE

WORLD CLASS!

Ana C., CMO LINKEDIN

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PHENOMENAL!

Joni R., Head of Strategic Marketing SAMSUNG

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Jay C., CHRO DENTONS

BLOWN AWAY!

Nicola P., Global Procurement Director LEGO GROUP

INCREDIBLE!

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BLOWN AWAY!

Mark R., Dir. of Global Health & Benefits WILLIS TOWERS WATSON

OUR MISSION.

from it.

FOR PEOPLE & PLANET: BUILDING A BETTER FUTURE

OUR MISSION is to be a driving force to help solve the world's greatest challenges, help organisations build sustainable and lasting legacies, and democratise access to the future so everyone everywhere, irrespective of their ability or background, can benefit

We do this by surfacing essential future-focused insights and open sourcing our content, by amplifying inspiring stories and voices, and by bringing people together.

OUR BRANDS.

UNLIMITED THINKING. EXPONENTIAL POTENTIAL

OUR BRANDS compliment one another and align with our mission. They include:

311 INSTITUTE

Our **globally renown** Futures and Deep Futures advisory working with the world's most respected brands, governments, and investors to explore and shape the future of global business, culture, and society.

WORLD FUTURES FORUM

Our **philanthropic organisation** working with the United Nations and other world leading institutions to find solutions to the world's greatest challenges, including the 17 United Nations Sustainability Development Goals.

XPOTENTIAL UNIVERSITY

Our **philanthropic university** working with academia and governments around the world to improve education equity and deliver future focused education for everyone.

"INSTEAD OF FOLLOWING THE TRENDS BE THE ONE WHO DEFINES THEM ... "

- Matthew Griffin, Founder

311 Institute World Futures Forum XPotential University

EXPLORE MORE

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CODEXES:

FUTURE PROOFING your business has never been harder. So we've made everything easy for you.



HOW TO BUILD EXPONENTIAL ENTERPRISES

Exponential technologies have accelerated the global rate of disruption, now it's your turn to disrupt the quo with our one of a kind ExPLORER Framework that helps every organisation disrupt at speed and scale.



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Explore the techniques Organised Crime groups use to grow despite being subjected to huge "competitive" pressures from governments.



STRATEGIC FORESIGHT FOR LEADERS

Explore how you can use strategic foresight to prepare your organisation for the future and turn future scenarios into actionable strategies.



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Explore how we prepare our children and society for a future where Science Fiction becomes Science Fact.



THE FUTURE OF EXPONENTIAL DISRUPTION

Explore the forces accelerating global disruption and how close we are to disrupting industries in just a day.



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Explore what happens when creative machines and not humans are the dominant creative force in the world.

XPOTENTIAL UNIVERSITY

UNLEASH YOUR EXPONENTIAL POTENTIAL



FUTURES EDUCATION FOR STUDENTS AND LEADERS

www.311Institute.com



CODEX OF THE FUTURE SERIES _FUTURE TECHNOLOGY & TRENDS



CODEXES:

WITH HUNDREDS, thousands, of emerging technologies and trends it can be hard to identify them all and understand their implications. So we put them all right at your fingertips.



311 TRENDS AND FORESIGHT **CODEX**

Explore the hundreds of megatrends and microtrends impacting and shaping your world and everything you care about.



EXPONENTIAL TECHNOLOGY CODEX

Explore the hundreds of exponential technologies that are emerging in detail and learn about their implications for global culture, industry, and society.



THE EMERGING TECHNOLOGY STARBURST COLLECTION

Use our Griffin Emerging Technology Starbursts to explore the future and find new ways to disrupt the status quo.

CODEX OF THE FUTURE SERIES _FUTURE DEEP DIVE AND EXPERT



CODEXES:

OUR DEEP Dive Codexes explore the future of individual topics in depth. So now you're the expert.



THE FUTURE OF THE **CONNECTED WORLD**

Explore the future of the technologies and trends that will connect everything and everyone and shape our connected future.



THE FUTURE OF GAMING

Explore the future of gaming and what happens when the simulations become people's new reality.



THE FUTURE OF INSURANCE

Explore the future of insurance, and the dangers of a future where global risk becomes systemic.



THE FUTURE OF SMARTPHONES

Explore the future of smartphones and smartphone formats, and discover what's around the corner.



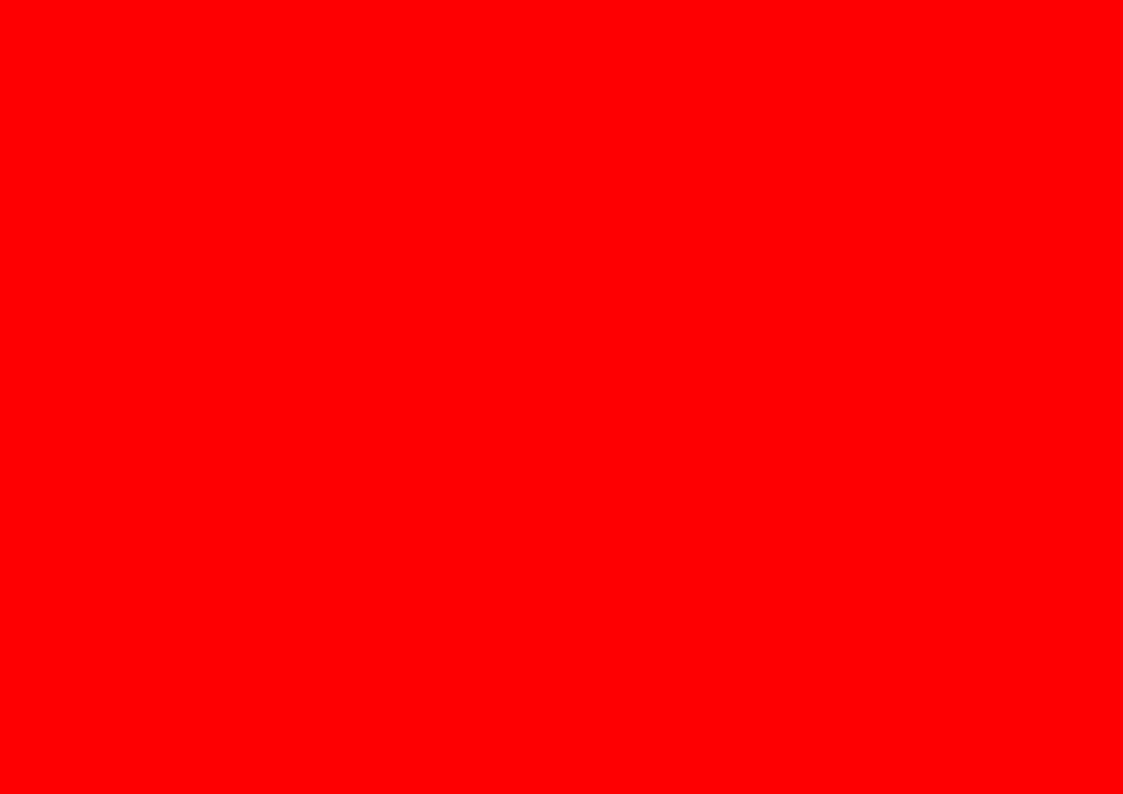
THE FUTURE OF SPORT

Explore the technologies and trends shaping the future of sport and sports performance.



THE FUTURE OF SYNTHETIC CONTENT

Explore the technologies and trends revolutionisning how content is made and consumed.



CODEX

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Third Edition published February 2025. To request this Codex in an alternative language please contact the author.

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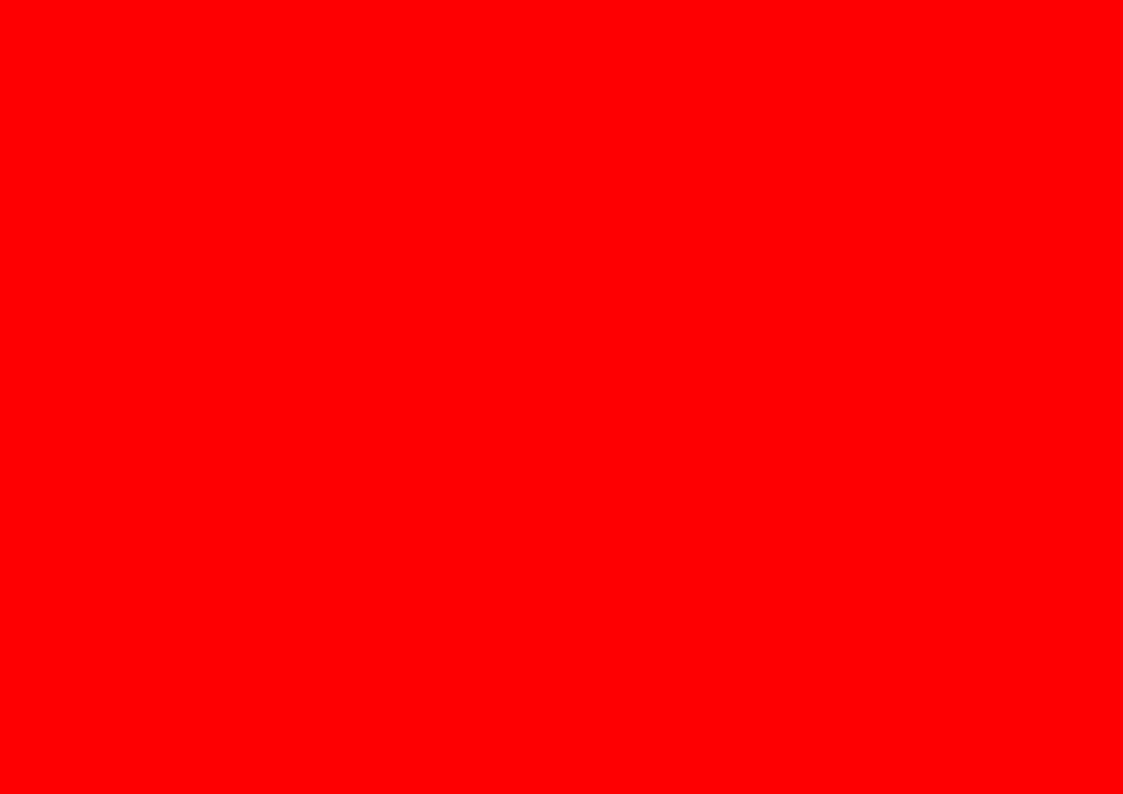
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PEOPLE. PLANET. PURPOSE. PROSPERITY

THE SKELETON COAST . NAMIBIA . 19.9873° S, 13.2605° E

I chose this striking image to represent this section because in many ways it's representative of many of today's realities: The Skeleton Coast is complex and unpredictable, but home to an amazingly adaptable ecosystem, yet it's also representative of the stark contrast between the have and have nots, those with water and other resources and those without, our increasingly polarised society, and even the contrast between our habitable blue planet and the desolation of space. The desert and the sea are also relentless, just like the human spirit, and given the right conditions they can overcome everything in their path, just as humanity can when we work together for the benefit of everyone to create a brighter future for all of us.

Codex contains explicit details about hundreds of trends that affect everything you care about - whether that's you, your business, your industry, your country, our planet, or all the above. Designed to be a one stop shop for everything that's trending it also contains everything you need to run your very own strategic foresight programs, model scenarios, and develop actionable initiatives and strategies to help you rule the future like a Boss.

Furthermore, as the main trends Codex grows exponentially larger I've split each trend category into separate

Minibooks to make it even easier for you zero in and focus on the trends that matter to you.

Most trends are like tides - relentless forces that are hard to control or influence. And, just like tides they can impact a great many things - both directly and indirectly. Having written Codexes that cover the

latest emerging technologies and the latest disruptive business thinking, innovation, and strategy, I felt that creating the trends Codex was a natural next step to compliment them, and ergo provide you with a valuable expert set of resources that contain everything you need to design, debate, create, and shape your own future.

This Codex, like all my others, is a living book, it's always being updated with the latest trends and information so that you always have access to the

latest insights and research, but perhaps its biggest benefit is that you can see every trend for everything in one place. This is important because since everything in our world is connected, as I've shared many times during my keynotes, this convenience allows you to easily stay abreast of changes in individual regions or sectors, technologies or trends - any one of which could impact the things you care about, even if the changes occur in areas that at first you don't think are relevant to you.

A simple but powerful example of this are the changes we see in the Energy sector where new energy generation and distribution technologies and trends are impacting

> everything from the business models and product development in the Transport sector, corporate ESG initiatives and Government policy making, climate change and other environmental trends, as well as the multi-trillion dollar investment portfolios of the global Financial Services sector - and far beyond.

> > No other trends book puts so many trends across so many categories, lines of business, and sectors in one place, or makes them so accessible, and that you might say is this books USP. That is, of course, if tens of thousands of insights and stats aren't enough already!

Explore More,

Matthew Griffin
Founder and Futurist in Chief

molfa





AVAGED BY climate change and geopolitical instability, inequality, pandemics, rapid technological change, Xenophobia, and war it would be easy to say we live in unparalleled times. But that would be a fallacy because a hundred years or so ago the people of the time were living through their own pandemics, their own wars, their own technological transformations, and staring down the barrel of all manner of other challenges.

Look at today's world though from another viewpoint and since those times the world has experienced its longest ever period of peace. Famine, illiteracy, and poverty are at their lowest levels since records began, and our quality of life and lifespans are the best they've ever been.

Even though many of us crave the security of absolute certainty humanity has always lived in turbulent and uncertain times, and as much as uncertainty can seem awful it's also been responsible for helping propel humanity to where it is today. It's forced us to adapt, to think outside of the box, to look at problems from different angles, and it's helped give us the mental tool kit we need to overcome seemingly insurmountable challenges on a near daily basis.

The past and the future have always been strange bedfellows, and then there's us - trying to reconcile the certainty of the past that we can't change with the uncertainty of the future that we can change. Today, every one of us has more power to change the world than ever before, to build and develop products that change the lives of billions of people at a scale and speed unimaginable just twenty years ago.

However, as the global rate of change accelerates we face new challenges, such as the ability to ingest enough information fast enough and have the cognitive ability and agility to develop new winning strategies at speeds that would have amazed older generations.

OUR NEW VUCA-MAX WORLD

No doubt you'll have heard of the term VUCA, an acronym devised by the US military in the 1970's to describe the world of the time which they felt was increasingly Volatile Uncertain Complex and Ambiguous.

Fast forwards to today and we have a new acronym to describe our world, the **VUCA-MAX** world, where in addition to the above the changes that we're witnessing today are increasingly

THE NEW WAY TO EXPLAIN HOW OUR WORLD IS CHANGING

VOLATILE COMPLEX AMBIGUOUS

MASSIVE UNCERTAIN ACCELERATING EXPONENTIAL

Notes:

Massive, Accelerating, and Exponential, the impact of which means that it's harder than ever before for individuals and organisations everywhere to predict the effects of disruption on their lives and business, and to see and capitalise on new opportunities.

THE TWO SIDES OF VUCA-MAX

Look around you and you can see the impact of this new VUCA-MAX world everywhere, for better and worse, as we see leaders struggle and old incumbents fade, and as we see new leaders and incumbents emerge from the metaphorical flames.

For example, as we discuss in more detail in our Future of Exponential Disruption Codex, the rate of global disruption is accelerating, so much so that we can disrupt the status quo in just a single day. Furthermore, the scale of many of the changes we're seeing are global, or what we sometimes refer to as "System Level." And then, of course, the only thing being affected is everything every aspect of global business, culture, and society.

Value Destruction

The first impact of this new world is that today we're seeing technology led disruption especially destroy over \$50 Trillion of global GDP. After all, just look at how technology, let alone other trends, is disrupting every sector, and even the tech sector itself.

CEO Burn Out

Another impact is that CEOs are finding it increasingly difficult to see all of the changes that are taking place and understand how they might play out, and then develop profitable and successful strategies navigate them, with the consequence being that they're burning out faster with the average multinational CEO tenure falling from a global average of 6 years down to 5 in the last five years.

CEOs No Longer In Control

Adding more fuel to the fire McKinsey's global leadership surveys are routinely highlighting the fact that today CEOs only directly influence 45% of what happens to their organisations - such as go to market, hiring and talent development and retention, investment and M&A, R&D, and strategy - with the remaining 55% being more directly

Notes:

influenced by external factors such as changing consumer behaviours, environmental and political trends, market forces, regulations, technological disruption, and so forth.

Take a minute to think about this - at a fundamental level this means that CEOs aren't in control of their companies, the external forces are. That's significant.

Dead In A Decade

And there's more still, with surveys such as the PWC 27th Annual Global CEO Survey which surveyed over 4,700 multinational CEO's from every industry and more than 100 countries finding that a staggering 45% of CEOs interviewed believe their companies won't survive the next ten years without being re-invented.

Now take a minute to think about that as well. Without being re-invented almost half of the world's largest companies could be gone or a shadow of their former selves in a decade.

Everything Up For Grabs

So, if you wanted a wake up call there are four big ones for you. But let's not forget that there are two sides to every

coin, and in this case the upsides are just as wild.

First off, while old value is being destroyed organisations like ARK Invest believe that disruptive technologies will help create over \$200 Trillion of new value and economic opportunity, which is why today more than 65% of big cap organisations are running some form of Creative Destruction programs. And secondly, as old incumbents and industries are torn down new ones are being created with some examples including the rise of AI companies and the switch to Electric Vehicles and renewable energy - all of which have already created new industry behemoths with multi-trillion dollar valuations.

SUMMARY

With great change comes great opportunity, but understanding these changes, navigating and benefiting from them requires new tools and new thinking, and that's why I created the **Codex of the Future Series** - to help you land on the right side of history and provide you with everything you need on your futures journey.

MERCEDES INVENTED THE AUTOMOBILE. BUT TESLA RE-INVENTED IT.

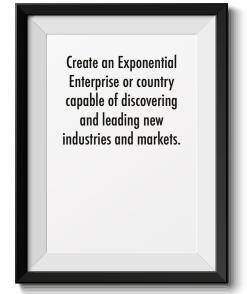
MARKET CAP MARCH 2024: MERCEDES \$79 BILLION. TESLA \$635 BILLION

THE PURPOSE OF THIS CODEX . . .

THIS CODEX is designed to help you and your teams stay ahead of current and emerging trends, and ultimately and help you ...









"ADAPT AND CHANGE BEFORE ANY MAJOR TRENDS OR CHANGES."

- Jack Ma, Alibaba

THIS CODEX HAS BEEN CREATED FOR . . .

IT'S EASY. If you want to change the world or shape the future or if you are just simply curious about the world you live in then this Codex has been created for you.





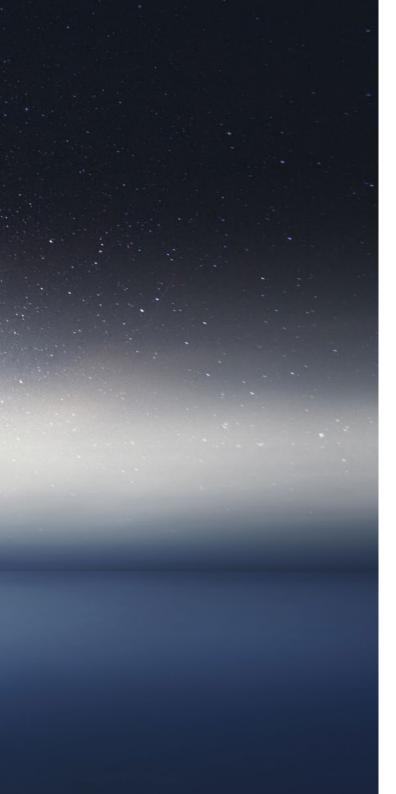




"FOLLOW THE TRENDLINES NOT THE HEADLINES."

- William B. Clinton, 42nd US President





ITH SO many trends and technologies shaping our world and with more emerging all the time it's easy to get overwhelmed and fail to grasp their individual and collective impact on the things you care about. This is why I've done my utmost to make this Codex, and all the others in the Codex of the Future Series, as simple as possible for you to explore and use irrespective of your goals, role, or sector.

Read this section carefully to get as much value from this Codex as possible and explore the trends with impunity then, if you wish to, choose one of our three tailor made **Strategic Foresight Programs** to create your very own Futures Scenarios and initiatives that help you prepare for all the Plausible, Possible, Preferable, Preposterous, and Probable futures that lie ahead of you.

EVERY TREND COVERED

As you can see from the chart on the following page there are a significant number of categories represented in this Codex and they're laid out in categorical order to make finding the trends you care about as easy as possible - so easy in fact you'll wonder why noone else has ever laid it out this way before.

EVERY TREND CROSS LINKED

Since every trend is affected by and also affects other trends I've conveniently highlighted the related trends in **BOLD** to make it easier for you to follow the proverbial breadcrumbs.

UNIVERSAL AND SPECIFIC TRENDS

Some trends such as STEEP (Societal, Technological, Economic, Environmental, and Political) trends and many Line of Business trends are universal in nature - in other words they broadly apply to everyone in very similar ways irrespective of your business, industry, or region. Then other trends, such as Sector Specific Trends, are much more likely to have an over sized impact on some industries and stakeholders than others.

It's also important to remember that each trend can have direct and indirect, and obvious and non-obvious impacts on others, so even though you might not think a trend is relevant to what you care about, it might very well be.

Good examples of this include **Climate Change** in our Environmental Trends
category, the **Net Zero Pledges**trend in our Political Trends category,
the **Diversity and Inclusion** trend in

Notes:

our HR and Training category, and the **Ransomware** trend in the Security Trends category - all of which impact and influence the behaviours, decisions, operations, and policies of almost every company in every industry, as well as many other trends.

Meanwhile, the **Single Stage to Orbit** trend in the Aerospace Industry affects that sector the most - in terms of behaviours, investment, and strategy - but again even this trend has far reaching indirect consequences for many other trend categories including the Communications, Defense, Energy, and even Manufacturing industries as it becomes cheaper and easier to deploy all manner of assets into space.

So, as you can see everything is connected which is why we chose this format to present it all to you.

311 TRENDS EXPLORER. FIND TRENDS FAST.

ECONOMIC TRENDS

ENVIRONMENTAL TRENDS

POLITICAL TRENDS

SOCIETAL TRENDS TECHNOLOGICAL TRENDS

UNIVERSAL TRENDS

BUSINESS MODELS

CONSUMER BEHAVIOURS

CUSTOMER EXPERIENCE

HR AND TRAINING

ICT

MARKETING

OPERATING MODEL

R&D

SECURITY

SUPPLY CHAIN

AEROSPACE

AGRICULTURE

AVIATION

CONSTRUCTION

DEFENCE

EDUCATION

ENERGY

FINANCIAL SERVICES

GAMING

HEALTHCARE

SUSTAINABILITY

WORKFORCE

WORKPLACE

INSURANCE

LOGISTICS

MANUFACTURING

MEDIA & ENTERTAINMENT

RETAIL

SPORTS

TELECOMS

TRANSPORT

SECTOR TRENDS

CALL

CLIMATE CHANGE

3RD YEAR ON THE LIST



QUICK TAKE

Scientists saw it coming in the 1950's. They called it out and made films about it in the 1980's. And now, over forty years later individuals, governments, and organisations are starting to take unilateral global action to tackle Climate Change with many scientist arguing that we are now too late to avoid a "life altering" 1.5C increase in average global temperatures, and that we are within years of crossing a climate tipping point which will see its devastating global effects accelerate and create a run away cascade of Extreme Weather and devastation.

IMPACT

The impact of Climate Change can be seen everywhere - from the changes of the seasons, and the subtle changes in the flora and fauna in peoples gardens, to the tree covered mountain slopes that used to be buried by glaciers and snow, to the expanding deserts of the Sahara, and the deep of the oceans. It impacts every living thing and every natural system on Earth.

From longer frost free growing seasons, to changes in global rain patterns, longer droughts and more intense heat waves, and more extreme weather, to more powerful hurricanes and higher sea levels, the consequences are as varied as they are acute.

If the world warms by 1.5C then the Arctic Ocean will become ice free once every 100 years, with extreme hot days in the mid-latitudes being at least 3C hotter than pre-industrial levels, and sea levels could rise by up to 0.77m, with a further decrease in global bio-diversity of between 5% and 8%. Meanwhile corals could decline by at least 70% with marine fisheries annual productivity declining by at least 1.5 Million tons. And a 2C rise would be exponentially worse for people and planet.

EXAMPLES

Earth is mission critical for humanity and all life on Earth. And as the rate of Climate Change accelerates we continue to see a variety of records being set and smashed with climactic events that used to be once in a century becoming once a decade, and then the norm. And examples of these are plentiful.

Greenland's ice sheet, the world's second largest after Antarctica, is now melting 12 times faster than in the past 12,000 years and loosing over 532 Billion tons of ice a year - and that rate is accelerating. Not only does this melt account for almost 25% of today's sea level rise, but in 2021 the melt rate accelerated even further when, during a time when temperatures in the region were already 18C higher than average, three days worth of rain - where the rain itself was a first for the region - dumped over 7 Billion tons of rain water onto the ice sheet.

And, from the world's biggest, deadliest, and most damaging floods, to the world's biggest, deadliest, and most damaging droughts, heatwaves, hurricanes, and wildfires almost every country on the planet is now feeing the damaging impacts of climate change.

ACT NOW

As we see elsewhere in our universe, from the dust dunes of Mars to the acidic oceans of Venus, our planet will always be able to adapt to new climactic conditions. But life on Earth will find it increasingly difficult as Climate Change accelerates and its effects become more extreme and pronounced. Therefore, ironically, tackling this trend is more about saving humanity's future than the planets.

EXPLORE:



- Carbon Capture and Storage
- Emerging technologies and technology roadmaps
- Future of Agriculture, Energy, Government, Manufacturing, Sustainability, Transportation, and Work
- Net Zero Pledges
- Unilateral global accords and coordinated global action

USING THE TREND SHEETS

IN THIS codex we've gone to great lengths to document the major trends affecting all sectors and line of business operations and simplify them for you. Furthermore, we're always surfacing more trends which is why this codex is regularly updated. As a result each trend contains all manner of action points, details, insights, and stats that you can use to your advantage, whether it's developing scenarios and strategies using the frameworks in this and our **other codexes**, or whether it's just exploring the art of the possible. This is the key to the sheets:

1 / UNITED NATIONS SDG NUMBER

The UN SDG most impacted if you act on the trend.

2 / TREND NAME

The most appropriate name for the trend.

3 / YEARS IN THE CODEX

How many years the trend has been listed in our codex since the first edition.

4 / TREND LONGEVITY

■ LONG ● MEDIUM ● SHORT

The trends longevity and how long it is expected to have an impact for.

5 / TREND PRIORITY

The higher the number the more attention and weight you should give the trend.

6 / TREND MOMENTUM

ASCENDING
 ◆ FLAT
 ◆ DESCENDING

The overall momentum of the trend.

7 / TIMING OF THE TREND

■ HERE NOW ● EMERGING ● DISTANT

When the trend is expected to have a measurable and pronounced impact.

8 / RELATED TRENDS

Other trends that either impact the trend or are impacted by it.

9 / DATA SOURCES

A list of our data sources for the trend.

10 / IMAGE

An image to portray the trend.

11 / ACTION

The action we suggest organisations take now based on the available data.

12 / EXPLORE

Other things you can or should explore to better understand the trend and how to solve or use it to your advantage.

13 / DISCOVER MORE

Click or scan the QR codes to access more resources or arrange an expert call with us.





N A world where data is generally anonymous, aggregated, and ubiquitous, where it's increasingly generated by machines, faked, and unverified, and where it can spun in a multitude of ways to show or promote different opinions, points of view, or even diametrically opposed positions, today more than ever before we all have to ask the question: "Do we trust the data?"

IN DATA WE DON'T TRUST

At the 311 Institute we have a **Zero Trust** approach to all the data we gather and analyse until we can either independently verify it or achieve a high degree of confidence that it's accurate and authentic, because in a world where data forms the basis of almost all human and machine decision making, whether those decisions are ideological, political, professional, societal, or other, trusting the wrong data can have dire consequences.

Ultimately, what our approach means for is that you too can have a high degree of confidence in the data we publish, and while we will never claim that it's one hundred percent accurate you have our word that everything we publish has been cross referenced and reviewed with critical and cynical human eyes.

TRANSPARENCY PLEDGE

Throughout all of our work we also extend a Transparency Pledge.

Firstly, all the data we present is unbiased, and while our authors - including any Artificial Intelligences that we may lean on which we'll come to in a moment - invariably have their own bias or opinions we always ensure we present a balanced and grounded real world view so that you can form your own opinions without having to worry about being subjected to unannounced or unclear bias.

Secondly, while we do our best to ensure the integrity of our data we still urge you to use your own common sense, do your own due diligence, and view it with critical eyes. And, if for whatever reason, there are cases where we are unsure about the datas accuracy or authenticity then we use best endeavours to flag it accordingly.

Thirdly, where possible and practical we always cite our sources. And, as you'll see from our data methodology on the following pages, we always reference primary research and direct observations first, only stepping through the remainder of the steps in our methodology if left with no better alternatives.

Fourthly, in an age where Generative Artificial Intelligence (GAI) is being used by companies large and small to generate or "knock out" content we default to human authors, and we will for a very long time to come because our own experiments with GAI have so far shown it to cite false or inaccurate sources and generate highly inaccurate results or Hallucinations.

As emerging technology experts ourselves though when the time inevitably comes for us to incorporate more GAI content into our work then we will be clear about it, apply our normal rigour, and incorporate a visible GAI Data Confidence Scale on the pages it's used.

OUR METHODOLOGY

All of this then brings us to the methodology we use - the 311 Institute Data Scale - to ensure the data in this Codex is of the highest quality and lives up to your expectations.

As you can see on the following page when it comes to the data we publish we source it from the highest quality sources first and only move down the scale when better alternatives aren't available. We rank the data we publish and our data sources according to a sliding

scale of accuracy, authenticity, bias, business model, confidence, consistency, explainability, integrity, professionalism, purpose, recognition, transparency, and many other factors. Unsurprisingly what we consider to be the gold standard is at the top.

MIND THE DATA GAP

All this said though we are also very aware that especially when it comes to gathering global statistics many datasets, even from the most reputable and far reaching primary research companies and global institutions, are often incomplete with not all countries gathering or sharing data, and we also recognise that the data collection and methodologies can all vary wildly so in these cases we do our best to close the gaps in a balanced, transparent way.

SUMMARY

All in all, not only does this make putting this Codex difficult but now hopefully you can see the lengths we go to to ensure you have quality data you can rely on, and a partner you can trust. 01

PRIMARY DATA SOURCES

DATA COLLECTED VIA DIRECT RESEARCH FROM REPUTABLE SOURCES.

HIGH Clear business model and sources of income

HIGH Data confidence and transparency

HIGH Domestic, international, and peer recognition

HIGH Robust and transparent methodologies

02

SECONDARY DATA SOURCES

DATA AGGREGATORS WITH LIMITED DIRECT RESEARCH.

MEDIUM Clear business model and sources of income

MEDIUM Data confidence and transparency

MEDIUM Domestic, international, and peer recognition

MEDIUM Robust and transparent methodologies

03

TERTIARY DATA SOURCES

DATA AGGREGATORS AND PUBLISHERS WITH NO DIRECT RESEARCH.

LOW Clear business model and sources of income

LOW Data confidence and transparency

LOW Domestic, international, and peer recognition
LOW Robust and transparent methodologies

04

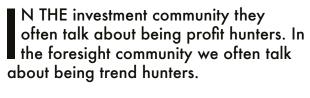
GENERATIVE AI SOURCES

OUR DATA OF LAST RESORT.

While Generative AI has its advantages, especially where there are gaps in the data or where the data is widely dispersed, it's proven to be highly error prone. As a result the lack of accuracy and transparency makes it an unreliable source of information.

TREND HUNTERS





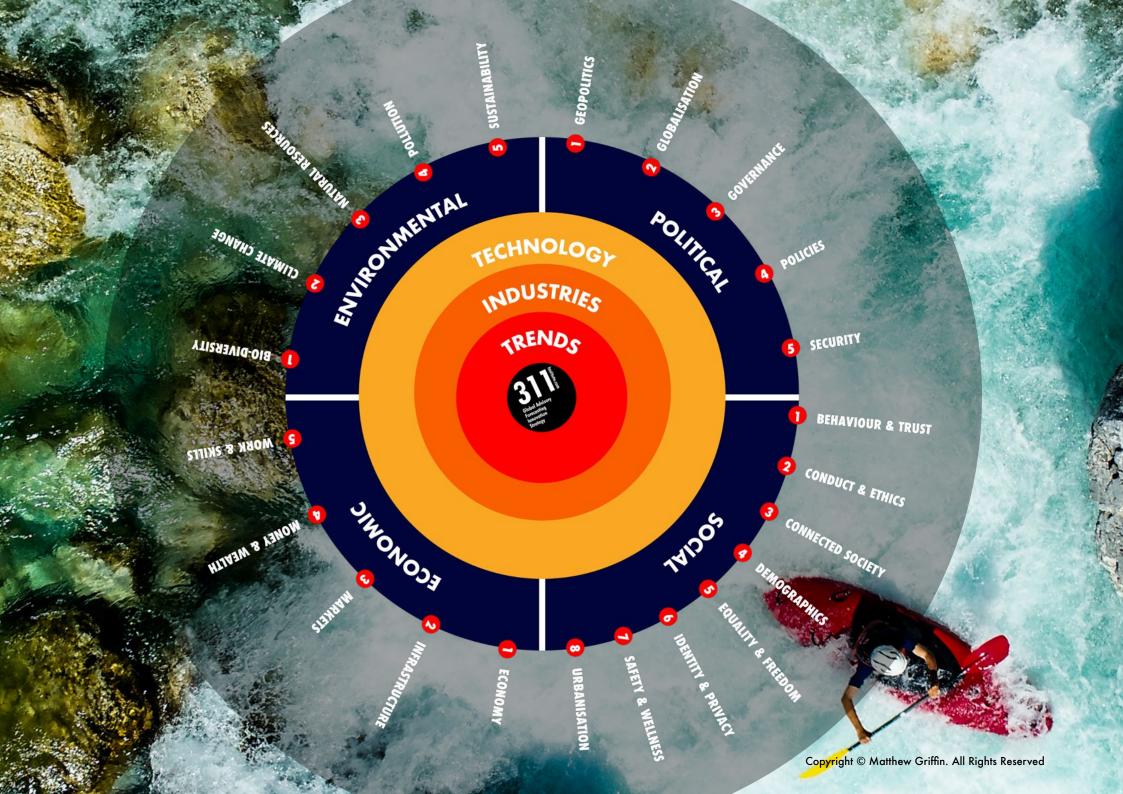
Planning the future of your organisation must always begin with identifying and exploring meaningful signs as you look out towards the horizon and one of the best ways of doing this is identifying emerging trends and understanding their behaviours and implications on each other as well as on the future of global business, culture, and society.

Whether we know it or not see it or not every moment of every day every aspect of our lives are directly and indirectly influenced by all manner of trends that shape our present and future, and identifying and understanding them all as well as their implications requires us to connect the dots and track changes across an incredibly broad range of trend categories.

Today more than ever leaders everywhere should explore the potential that trends have to shape the future of their organisations, factor them into their strategic decision making, and then evolve their business strategies accordingly.

Now more than ever, in a rapidly

changing and increasingly connected and disruptive world failing to track trends in a meaningful way will put you at a competitive disadvantage and put your future prosperity at risk. It is for this reason I created this codex, a literal "trends catalogue" that puts every trend and every titbit of relevant information right at your fingertips.



INTRODUCING MEGATRENDS AND TRENDS.

transformative forces, backed by observable and verifiable data, that have the power to shape the future of global business, culture, and society, and they have been shaping the way we live for centuries - just think about the automobile, electricity, the internet or any number of other everyday items. And they will continue shaping our society until the end of time or human existence - whichever comes sooner.

Exploring megatrends and their implications is an integral part of helping organisations contemplate and envision different versions of the future. They also indicate a general direction of change, and can themselves be comprised of several different trends with the overall direction of their future development often being dictated and influenced by their past - but not always.

They are also often not surprising to us - they are often familiar things, changes that are already happening today and that are highly likely to continue happening into the future.

To use an analogy you can think of megatrends in much the same way as you think about the ocean – a large unstoppable force that seems to have a mind of its own and that only seems to travel in one direction despite some of your best efforts to disrupt or divert it. In this example the ocean is the megatrend, and eventually, like it or not, it's going to sweep you in one overall direction.

Within this ocean though there are other smaller forces, or microtrends, at work – currents, eddies, and vortexes. And, as the megatrend sweeps you in one overall direction it's often these microtrends that snare you and determine your final eventual destination – your future state.

A simplistic example of this is the impact Climate Change, a megatrend, has had directly and indirectly on the global energy sector. Swept along by this then snared by many smaller trends such as bans on the sales of combustion engine vehicles, cultural backlashes, investor fallout, Net Zero policies, and rising emissions and extreme weather events, the sector's been forced to radically alter its path and ditch its reliance on fossil

fuels - whether it wanted to or not.

While these trends and others have all played their role in shaping the future of the sector it's the rise of another trend that's ultimately accelerated the sectors transformation away from its roots - the investment in and development of low cost renewable energy technologies which have irrevocably changed the sector's economics.

Arguably, had any of these trends played out differently this transition may never have happened so, as you can see, we are all at the mercy of trends in one way or another which is why it's crucial we explore them and their possible implications thoroughly.

TREND CATEGORISATION

In this codex I cover as many trends as possible so you have all the information you need and, as I explained earlier on, I've categorised them all according to their STEEP (Social, Technology, Economic, Environmental, and Political), line of business, and sector relevance.





TO PROSPER and thrive in both today's world and in the future organisations must be driven by more than profit and the bottom line. They must have a deep rooted and authentic desire to help improve the lives of all those they share the planet with, to protect our home, and be purpose driven.

In short they should be driven by and take ownership of the phrase: People. Planet. Purpose.

THE FUTURE IS OUR LEGACY

Today, our world and everyone and everything that relies on it face a great number of seemingly insurmountable challenges and it's down to each of us to play our role in finding solutions and solving them so we can leave this world a better place than when we entered it. After all, as I often say: "The future is the legacy we leave behind."

As a result, and with this at the forefront of our minds at the 311 Institute, and our associated companies, we have made it our central purpose to do our utmost to amplify positive voices, highlight solutions to these challenges no matter how implausible they may seem, and empower everyone to play their part.

This is also the reason why woven throughout all the content we publish across all our platforms you will find insights, narratives, and solutions that align with the seventeen United Nations Sustainability Development Goals - the UN SDG.

That said neither we, our clients, or the organisations we partner with and support are under any illusion that the road ahead isn't long, often uncharted, and littered with obstacles. But, we're determined and collectively, as we have already demonstrated many times together, there's no problem we can't solve.

THE 311 FUTURE WORLD SERIES

As a result, and because talk is always often just cheap, when it comes to solving all seventeen UN SDG and other "Grand Challenges" we created the 311 Future World Series - a dedicated space to highlight the impact of these challenges on the world and its inhabitants and highlight the solutions we have in our hands today to solve them, as well as the even greater number and variety of solutions we see emerging on almost a daily basis.

Developing solutions to these challenges





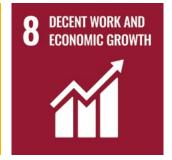


































THE 311 FUTURE WORLD SERIES

While they aren't always obvious we already have the **solutions** we need to solve all 17 UN SDG, from Hunger and Water to Education and Inequality, so we all have reasons to be optimistic. Click the QR code and **explore them all**.



though is just one part of the equation, and often the hardest job is getting them to where they need to be, in time, and into the hands of the people who need them.

It's for this and other reasons therefore why, even though today we have millions of passionate entrepreneurs and organisations all around the world, we need everyone to play their part, and even the smallest contribution makes a difference.

If you would like learn more about the UN SDG, the challenges we face, and the solutions to them then I encourage you to explore our content and website, and to reach out.

Explore More,

MATTHEW Griffin Founder and Futurist in Chief





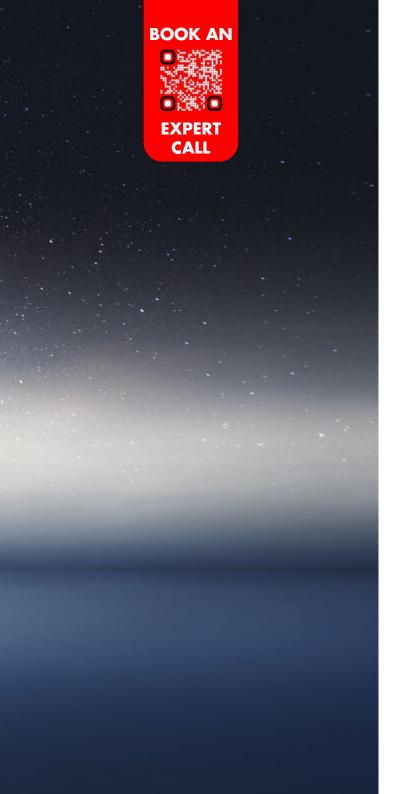
PERHAPS ONE of the main reasons you're reading this codex, and perhaps some of the others in our Codex of the Future Series, is because you're curious about the future and want to understand how different emerging concepts, ideas, signals, technologies, and trends could impact the future of your country, industry, or organisation. Or all of them.

If that's the case then you'll no doubt quickly realise two things. Firstly, there's a huge amount of information to investigate and explore, spanning lots of different topic areas. Secondly, trying to explore the many direct and indirect implications of them all, as well as what happens when they converge, can be complicated, confusing, and frustrating.

As a result it's highly likely that you'll need something that helps you explore, navigate, and design Plausible, Possible, Preferable, Preposterous, and Probable short, medium, and deep futures so you can benefit from them all which is why we've included two of our three tailor made Strategic Foresight Programs in this codex - the Horizon LITE and Horizon Pro Programs, with the third program the Horizon ELITE Program having its own dedicated codex the How to Build Exponential Enterprises Codex - which include all the foresight

frameworks, models, resources, and tools you need to identify and dominate new markets and opportunities, and why we've also included an overview of our first of a kind **Anchoring Constants**Model which has helped our clients, and some of the worlds largest companies extend their leadership positions for more than a decade.





Foresight is about three things, namely saving you precious time, minimising future surprises, and preparing you for what's coming.

WHY YOU SHOULD RUN A PROGRAM

While many organisations run strategic foresight workshops in our increasingly VUCA-MAX world, the effects of which you can see all around you, we believe you should run regular programs. The reason for this is simple - workshops, like scenario workshops, are single events, you start them and finish them, and once they're complete it's easy to loose momentum, see participants go back to being consumed by their day jobs, and shelve the outputs.

By running a program though you maintain consistency, the team, and just as importantly the momentum. It's also much more likely that the results will be turned into valuable actionable initiatives.

THE VALUE OF STRATEGIC FORESIGHT

Strategic foresight acts as a counter balance to our VUCA-MAX world by giving you the opportunity to envision the future, develop scenarios, and explore how they could benefit or harm your organisation within a safe environment.

It also provides you with the critical thinking and valuable insights you need to discuss how the organisation can adapt or react to these futures, make better faster decisions, and design resilient business strategies and visions that maximise the upsides, minimise the downsides, and stand the test of time.

Over simplifying the issue, the vast majority of organisations care about three things: decreasing costs and risks, and increasing revenues. So, love it or not, like any business activity futures thinking and strategic foresight programs all have to be able to demonstrate intangible or tangible returns that align with your organisations goals. And, also, let's face it, nothing prompts organisations to embrace foresight and futures thinking programs like a gigantic hit to the top and bottom lines as markets change and customers vote with their feet and as new competitors and disruptors erode your organisations competitive advantage and value propositions.

As surveys conducted by Deloitte and Aarhus School of Business and Social Sciences have shown organisations with dedicated corporate foresight teams realise a 200% higher market

cap on average than their peers, and organisations who are "Future Prepared" are on average 33% more profitable.

So, whether you measure your future in dividends, dollar amounts, market differentiation, or organisational readiness and resilience, or all of these, there are plenty of rewards to be realised by those who are prepared.

LESSONS FROM HOLLYWOOD

However, while an organisation can hire the best experts and foresight teams its ability to turn strategic foresight into business value ultimately relies on its ability to use the insights wisely to develop strategic advantage. And doing this is much more complicated than most stakeholders imagine, which is perhaps why many organisations stop or 'ratchet down' after running their scenario workshops and fail to use the results to design and inform their future business strategies that they can then, importantly, action and execute.

Hollywood provides us with plenty of time travelling heroes who travel back to the past - with perfect knowledge of their timelines' history and other people's futures - to change and manipulate the future for their own gain. In some cases these characters, like Biff in Back to the Future Part 2, use this perfect knowledge to amass huge fortunes by betting on the right stocks. In Minority Report Tom Cruise uses the precogs to catch future criminals. And then in the Terminator and X-Men franchises the characters try to save humanity with varying degrees of success, and innumerable complications.

And the lesson is this - even with perfect knowledge of the future sometimes these characters win and sometimes they loose in dramatic fashion which then goes to show us one thing - trying to manipulate and shape the future to your advantage is difficult even under the best circumstances and with the best insights.

Putting this in business terms, once you have information about the future you trust, and when it comes to using it to your advantage, execution is everything, and for the organisations that get it right the rewards as we can see today can be game changing, and in some cases world changing.

MOST FORESIGHT PROGRAMS ONLY SHOW YOU 30% OF THE FUTURE.

OURS SHOWS
YOU EVERYTHING.

WHAT ARE YOU MISSING?







E ALL know everything is constantly changing - at the micro and the macro level. Even as you read this the cells in your body are changing you at a physical level, let alone when we think about all of the changes that are happening around us in the wider digital, physical, and virtual worlds. And, as the number of things changing continues to increase almost exponentially as we see with the VUCA-MAX world we discussed previously, this gives us at the 311 Institute, and by extension you, an issue.

That issue namely being the fact that the more things that change the harder it is for us all to envision the Plausible, Possible, Preferred, Probable, and Preposterous futures in the near, medium, and long term.

THE TWO BIG PROBLEMS TO SOLVE

When it comes to strategic foresight programs there are arguably two problems to solve. The first is identifying all the signals, technologies, and trends that have any kind of direct or indirect impact on your programs objectives. And then the second is trying to assess the trajectories of all these changes and their impacts on everything the organisation cares about over the time frame your

organisation cares about.

Suffice to say the first point is incredibly hard, which is why we created our Codex of the Future Series, and the second point is even harder so we devised a way to simplify it and we call it the Anchoring Constants Model which we increasingly see being a crucial lynch pin in our futures and strategic foresight programs and in helping us accurately envision the future.

INTRODUCING ANCHORING CONSTANTS

Anchoring Constants are obvious and everywhere but you probably don't think about them very much.

From a top down perspective they are the "Innate Behaviours Of Different Systems That Are Always True Under Almost All Circumstances That Persist Across Time" that subversively drive and influence how and why almost everything changes in the way that it does. Or, looking at it from the bottom up, they are the lowest common denominators that determine how a system might react to a particular event or stimulus, such as a signal, technology, or trend, and over time influence its trajectory and likelihood of success.

THE 311 INSTITUTE MODEL OF

ANCHORING CONSTANTS

"THE INNATE BEHAVIOURS OF SYSTEMS
THAT ARE ALWAYS TRUE UNDER
ALMOST ALL CIRCUMSTANCES THAT
PERSIST ACROSS TIME."

- Matthew Griffin, Founder, 311 Institute

There are constants everywhere and, as for "Systems," you can think of those as categories or themes, and the more of these anchoring constants that an individual signal, technology, or trend aligns with then the more likely that it is that it will ascend, persist, and possibly dominate in the years to come.

Then, once we've assessed how those individual signals, technologies, and trends align with these anchoring constants then our next step at the 311 Institute is to try to figure out what happens when they start converging and colliding with one another and what futures those results could create.

For example, you could say that the innate behaviour of a sovereign economy is to grow - this is its Anchoring Constant - so in this example we might look for signals, technologies, and trends that support that growth.

Then, as we move through our due diligence process if we discover two similar but competing trends which align with this Anchoring Constant then we will do our utmost to assess which one aligns the best with the Anchoring Constant we care about. And, while it's an imperfect practise in the main it gives us a much better chance of identifying and predicting the winners and,

therefore, improving the accuracy of our Horizon 1, 2, and 3 forecasts.

WHAT'S IN A NAME

So you might wonder why I use this term. Firstly, these innate behaviours often "Anchor" the development of the technologies and trends we monitor because if there is no connection to these innate behaviours then the relevance and usefulness of those technologies and trends to business, culture, and society will be negligible or nil which means that over time they'll likely fade away.

Secondly, these innate behaviours are "Constants" because, very importantly, they hold true across time and don't change - something that is especially important when we're dealing with near to long term futures, even as everything else around them changes. So let's run an example.

Say we're running a strategic foresight program investigating the long term future of company operating models - a random project. Economically we know growing "Revenue Growth" is an Anchoring Constant, but if we're comparing two trends such as "Human Operated Companies" versus "Al Operated Companies" then if the latter

can grow company revenues faster and more sustainably then it's more likely that over time this will become the more dominant trend of the two and could become the status quo.

Hopefully this simple example shows you why, irrespective of the objectives of our strategic foresight program, being able to identify these anchoring constants is vitally important and how they can help us extrapolate out the likely future of an individual technology or trend, or collection thereof. And while there will always be Black Swans and wild cards they are the exception not the rule.

the activities in our strategic forecasting programs.

APPLICABILITY TO ALL CATEGORIES

This method can also be applied to almost every category and topic of your choosing whether it's Cyber, where an anchoring constant might include "Identity," Luxury Holidays, which might include "Enjoyment," and all manner of other things.

In the next few pages I highlight a few of the anchoring constants that we associate with the STEEP (Societal, Technological, Economic, Environmental, and Political) categories and some of the innate behaviours we use to ground our own futures thinking and underpin some of

"CHANGE IS NOT THE ONLY CONSTANT IN LIFE."

- Matthew Griffin, Founder, 311 Institute

ECONOMIC

FIRST ORDER ANCHORING CONSTANTS

BALANCE OF TRADE COMPETITIVE DYNAMICS ECONOMIC GROWTH EFFICIENCY PRICE STABILITY **PRODUCTIVITY** PROFIT MAXIMISATION **RESOURCE ACQUISITION**

ENVIRONMENTAL

FIRST ORDER ANCHORING CONSTANTS

EQUILIBRIUM INTERDEPENDENCE NATURAL SELECTION

POLITICAL

FIRST ORDER ANCHORING CONSTANTS

CONTROL
GDP GROWTH
INTERNATIONAL RELATIONS
NATIONAL SECURITY
NATIONALISM
POLITICAL SURVIVAL
POWER AND INFLUENCE

SOCIETAL

FIRST ORDER ANCHORING CONSTANTS

ADAPTABILITY BASIC NEEDS EMOTIONAL INFLUENCE SELF-ORGANISATION SOCIAL COOPERATION SOCIAL STRATIFICATION TRUST UNITARY SURVIVAL

TECHNOLOGICAL

FIRST ORDER ANCHORING CONSTANTS

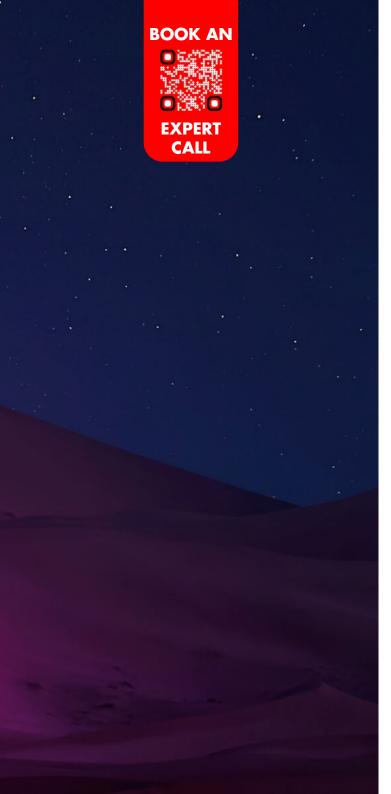
AGENCY
AUTOMATION
IMPROVING COST - PERFORMANCE
IMPROVING UTILITY
MINIATURISATION
PERVASIVENESS
SERVICE ACCESS

VALUE

FIRST ORDER ANCHORING CONSTANTS

DESIRABILITY
TIMING
UNIQUENESS
UTILITY
SUPPLY - DEMAND

OUR DEEP FORESIGHT FRAMEWORK



HEN YOU set out to explore the future there are two aspects - the strategic foresight framework and program you use to plan and guide your journey, and then there's the journey itself, the act of going through the experience and coming out the other side having achieved your objectives. And while almost every futures organisation talks about the value of their frameworks in our estimation you simply cannot have one without the other. In our eyes both - the guide, your companion, and the journey - are both equally important.

This is why at the 311 Institute we've put a huge amount of thought into both and, for the reasons I'll share with you here, developed a brand new Deep Foresight Framework and the three new custom Strategic Foresight Programs that I detailed in the previous chapter.

OUR AMBITION

At the 311 Institute we see ambition as a good thing which is why we support so many wonderful change makers and entrepreneurs around the world.

From our own perspective though from the outset it was our ambition to be the worlds best Futures and Deep Futures advisory, without exception, and to create a company that democratised access to the future and helped people, irrespective of their ability, background, or circumstances easily and accurately determine how different futures could affect the topics they were passionate about.

Today, our breadth and depth of futures expertise and insights gives us agency to work with any stakeholders in any sector in any country at an expert level and identify opportunities and threats many years, and in some cases decades, ahead of time and then help our clients develop the capacity, capabilities, and culture that help them thrive in these Plausible, Preferable, Probable, Possible, and Preposterous futures.

And there's a reason why I mention this ambition.

OLD FRAMEWORKS ARE FLAWED

As the rate of global disruption accelerates, as science fiction becomes science fact, and as the VUCA world becomes increasingly VUCA-MAX where, in addition to VUCA, the changes are increasingly Massive, Accelerating, and eXponential, we noticed very early on that the traditional strategic foresight

tools and frameworks that people were using, most of which were developed decades ago and in a completely different era in time, were increasingly ineffective at helping organisations identify and explore everything that they needed to see today that could help them envision tomorrow, and a future that plays by new rules and which has less and less in common with our past.

Additionally, and somewhat ironically, most of those same frameworks hadn't been updated in decades and had failed to keep pace with the very futures that they were designed to help envision.

Digging deeper into this, and feel free to correct me if you feel I'm wrong because I'm always up for a good chat, not only did the vast majority of them fail to help organisations identify and, dare I say predict, some of the large system level changes we're seeing today, but they also failed miserably at spotting the rise of significant new technologies and trends such as the rise of Generative AI, the latter of which, as we all know now, changed the world and which we spotted and started discussing with our clients over a decade ago.

AVOIDING THE COMPANY GRAVEYARD

From an organisational perspective missing vital insights and signals like these and failing to understand their significance can quite literally end companies.

In the case of Generative AI, for example, its emergence caused many companies in the EdTech sector who were selling Adaptive Education solutions to go bankrupt. Meanwhile, in other examples it caused share prices to dive by up to 90% and then on the other side of the coin in the case of Microsoft, one of our long standing clients, it helped push their market cap to more than \$3 Trillion.

As you can see, in today's world you miss one, albeit world changing signal, and it can make the difference between being the world's biggest company by market cap or closing your doors forever.

From our first hand experience with clients we believe that when it comes to the future today organisations are missing at least 60 percent of the bigger picture, and in a world that's changing as much as it is and as fast as it is that can make all the difference in the markets.

As we saw this point was also hammered home hard in the PWC 27th Global

CEO Survey, in which a mind boggling 45 percent of the 4,702 CEO's of multinational companies surveyed said that and I quote "they didn't believe their companies would be economically viable in 10 years time without significant reinvention." That, by any measure, is a staggering statistic.

Just linger on that for a moment - almost half of the CEO's running today's biggest companies don't think their companies will survive if they don't reinvent themselves.

This then prompts us to ask the question: is this a failure of the strategic foresight programs they're running, data discovery, corporate culture and leadership, or all four?

Admittedly, it'll be a combination of all these. But, if we don't fix all these issues and soon then we could see almost half of companies going to the wall, fading away, or being sold in a fire sale. And none of us want that. And this, in part, is just one of the reasons that compelled us to create the 311 Institute Deep Foresight Framework.

INTRODUCING THE DEEP FORESIGHT FRAMEWORK.

OPEFULLY, BY now you have a clear understanding of why we felt compelled to develop our own Deep Foresight Framework - a new strategic foresight framework built to help organisations envision Horizon 1, 2, and 3 futures, which we then embedded as the center piece of our three custom designed Strategic Foresight programs, the Horizon LITE, Pro, and ELITE Programs that, when combined together give you the ultimate foresight package you need to envision infinite futures and help you build the capabilities and organisational initiatives you need to thrive.

In this section you can read more about why we designed our framework as a Companion not just a guide, and learn more about all the content and materials we've created to help you as you venture forth on your "Futures Journey."

FRAMEWORKS AS COMPANIONS

As with many of the things we do at the 311 Institute when designing our framework we started with a blank sheet of paper - a First Principles approach. We even wondered if we should design a new framework because, frankly, we're not fans of them. In part this is because most frameworks are bloated and complicated, and more often than not they're all the same under the hood just with different logos and marketing layered on top.

However, despite our reticence we also realise the importance of frameworks as conceptual guides. And, when it comes to understanding and navigating the future, we all need guides.

But, for the explorers and travellers among us, we all know there are different calibres of guides. Going back to our earlier analogy at the beginning of this chapter, if we compare your strategic foresight program to a "Futures Journey" then as you'll know there are those 'tourist' guides that simply stand rooted to the spot and point in the direction you need to travel, and then there are those guides who are true Companions on your journey and light the way for you, and who turn your journey from being a chore to a joy, chaperone you and show

you the sights to explore, the dangers to avoid and the short cuts to take. In short, they turn your journey into a rich, unforgettable experience that leaves you changed for the better.

From our first hand experience we felt that the majority of traditional frameworks are mere guides, they just point the way, which is why they fail so often to help teams spot and explore so many of the vitally important signals, technologies, and trends that are crucial in helping them see and understand the bigger "futures picture." And, we also knew from our conversations with our clients, that they too wanted a companion framework, not just a simple guide.

GROUNDING OUR FRAMEWORK

For a framework to be future fit we believe it has to be firmly anchored to helping clients achieve the three things they care about.

Firstly, it has to be able to capture the clients discovery space, namely the

things they want to explore, and also their problem space, the issues they care about solving across a Horizon 1, 2, or 3 timeline. Secondly, it needs to give them everything they need to discover everything that will have a direct or indirect impact on these spaces. And, thirdly, it must provide them with everything they need to develop and explore scenarios and solutions, assess and evaluate them, and turn them into actionable initiatives. So that's precisely what we developed.

YOUR FUTURES JOURNEY

Having created the Deep Foresight framework then there's the actual journey itself - the act of you being a part of the organisations Futures Journey and its strategic foresight program. And, just like journeys, every strategic foresight program is different because of what stakeholders what to achieve, the people that are included, and a million other reasons.

Since our very founding as a company, and asides from our framework, we realised we needed to be able to provide our clients with the journey itself - the insights and sights, the views and points of view of the future, which is why since our inception we've worked so hard

to develop the content and materials you need on this journey, including our wildly successful **Codex of the Future Series**, so that you have all the signals, technology, and trends information, and more, that you need all in one place, and from one company, that will help you envision and explore every future you could possibly imagine.

SUMMARY

As the future becomes increasingly complex, as the rate of change accelerates and as the magnitude of those changes increase exponentially, having a companion guide is one thing, but it's also vital to be able to get as a big a view of the future as possible.

Using a simple example, yes it's wonderful to have a great guide that shows you the desert, but if your actual objectives mean that you would have been better off exploring the jungle then while interesting that particular journey doesn't deliver what you needed it to. So what you need is both, an expert companion, and the right information and insights - or the right environment - to explore. And that's what we were literally born to do.

"FEAR IS THE MOTHER OF FORESIGHT."

- Thomas Hardy





MODELS

SET OBJECTIVES

DEFINE THE OBJECTIVES OF YOUR STRATEGIC FORESIGHT PROGRAM

FRAME Model

FRAME

EXPLORE EVERYTHING

DISCOVER AND EXPLORE SIGNALS . TECH . TRENDS . &

EXPLORE Model
PREDICT Model

EXPLORE

SCENARIOS

GENERATE FUTURES SCENARIOS

IMAGINE Model

IMAGINE

ANALYSE AND SELECT

THE FUTURE MEETS REALITY

ASSESS Model

ASSESS

TIME TO ACT

TURN OUTPUTS INTO ACTIONS

CT Model

ACT

SIGNALS . TECH . TRENDS . JUST A CLICK AWAY

LOOKING FOR FUTURES INFORMATION FOR YOUR PROGRAM? WE'VE GOT YOU



OUR STRATEGIC FORESIGHT MODELS





Framework, and to provide you with all the resources and tools you need to run your own Strategic Foresight programs and workshops, we developed a series of Deep Foresight Models, each of which compliments a specific stage of the framework. And, in our eternal quest to try and make envisioning the future as easy as possible we tried to make everything as simple as possible which means that no matter where you start your futures journey and no matter what your skill level or team size, these are all designed for you.

INTRODUCING THE MODELS

In total we have six models for you, all of which can be used together or individually depending on your goals and objectives. When used all together they will help you run a complete Strategic Foresight program and when used individually they will allow you to run discrete workshops of your choosing.

The models are the 311 Institute FRAME Model, EXPLORE and PREDICT Models, IMAGINE Model, ASSESS Model, and the ACT Model. As you will see in the following pages they each have a specific purpose.

The FRAME Model helps you frame the objectives of your strategic foresight program. The EXPLORE Model helps you discover and explore signals, technologies, and trends that might be relevant to your program, and the PREDICT Model helps you identify uncertainties and unknowns in those information sets. The IMAGINE Model then helps you generate your Futures Scenarios, the ASSESS Model helps you assess and filter your scenarios, and last but not least the ACT Model helps you translate your chosen scenarios into actionable initiatives.

What could be easier than that? Seriously, if you know then let us know, we'd love to hear from you! Now enjoy the models and create your future ...

THE 311 INSTITUTE FRAME MODEL.

FRAME Model. Part of our custom designed 311 Institute

Deep Foresight Framework, and an integral part of all of the 311 Institutes Strategic Foresight programs, the objective of this model is to help individuals and organisations determine what they want their strategic foresight programs to achieve, and the results they want to realise.

In this section I will walk you through the purpose of each step of the model and how to run your own FRAME workshops.

INTRODUCING THE STEPS

1. Foresight Focus

In this first step you and your participants must determine your focus space for the program in terms of identifying the key areas, priorities, and topics that you care the most about, and then should start scoping out the programs overall objectives, which can be tactical or strategic, and quite literally anything

you'd like them to be.

2. Results Definition

Having established the objectives of your program you now need to translate them into the specific results you want to see. These must be clearly aligned, defined, and measurable.

3. Alignment

Alignment, of both your objectives and results, as well as the expectations of the programs participants and stakeholders is crucial to ensure you are all on the same page and working towards common objectives. Effective alignment helps with organisational buy in, collaboration, and support, all of which are crucial.

4. Methodology Mapping

In this step you need to select the appropriate frameworks, methods, and tools that you are going to use during

the different stages of your program. This ensures that the foresight process is rigorous and thorough, and that it's also well matched to the capabilities and skills of those participating.

5. Evaluation Criteria

Another crucial step it's essential that you define how the different stages of the program and the outputs are all going to be evaluated and who by.



FORESIGHT FOCUS

Decide the FOCUS and SCOPE of your Strategic Foresight program, identify key areas, priorities, themes, and topics.



RESULTS DEFINITION

Define the RESULTS you want to see at the end of the program and its OBJECTIVES.



ALIGNMENT

Make sure your objectives align with your organisations MISSION, PURPOSE, and VALUES.



METHODOLOGY MAPPING

Decide which METHODOLOGIES and TOOLS you'll use during the program.



EVALUATION CRITERIA

Decide how you will evaluate the success and effectiveness of the program.

PART OF THE 311 INSTITUTE DEEP FORESIGHT FRAMEWO



THE 311 INSTITUTE EXPLORE MODEL.

ELCOME TO the 311 Institute EXPLORE Model. Part of our custom designed 311 Institute

Deep Foresight Framework, and an integral part of all of the 311 Institutes

Strategic Foresight programs, the objective of this model is to help you discover and contextualise information that's important to your programs objectives, from as wide a variety of data sources as possible, that you can then investigate before using the results to develop your Futures Scenarios in the next stage of the program.

In this section I will walk you through the purpose of each step of the model and how to run your own EXPLORE workshops.

INTRODUCING THE STEPS

1. Explore

In this step you are tasked with gathering together and exploring as much information as possible from as many different sources as possible.

2. Examine

Once you have gathered together this information now you need to forensically examine it piece by piece in order to assess the impact of each data fragment on your programs objectives.

3. Predict Consequences

Based on the insights you derived from the previous step your next task is to take the information fragments that you consider to have the greatest impact on your programs objectives and try to extrapolate out their future consequences and states, and their future trajectories.

4. Leverage Analytics

In the stage you are encouraged to use different analytical methodologies and tools to categorise and group the data fragments that have the most relevance to your program. By starting to group and structure the information in this way you should now be starting to get a much

clearer view of which ones are the most important and have the greatest impact on the objectives your program cares about.

5. Observe Shifts

When it comes to the future almost everything is in constant motion, and the same is true of the insights you've gathered. As a result, in this step, you're encouraged to look for shifts in the behaviours and trajectories of your information fragments because by identifying these early you'll be able to discuss and explore the impact of these shifts on the Futures Scenarios you'll be creating in the next stage of the program.

6. Research Uncertainties

When analysing and exploring any volume of data there are always going to be uncertainties and unknowns, all of which could have unintended consequences for your program so in this step, and using the **311 Institute**

PREDICT Model if needed, you are encouraged to try and identify as many of these uncertainties and unknowns as possible so that you can discuss and explore their impacts on the different things you care about.

6. Explore Intersections

In this final step you are given the opportunity to let loose the proverbial Chaos Monkey and clash together different data fragments - signals, technologies, and trends - and then discuss and explore what happens, or what could happen, when they intersect. By undertaking this very important, but often over looked exercise, not only will you identify new futures and new possibilities, eliminate even more uncertainties and unknowns, but you will also make your existing findings more robust, future proof, and useful.



This EXPLORE MODEL is part of the 311 INSTITUTE DEEP FORESIGHT FRAMEWORK. Use it to discover important signals, technologies, and trends.

E

EXPLORE

Discover and explore important, meaningful, and relevant SIGNALS, TECHNOLOGIES and TRENDS.



EXAMINE

Examine your discoveries and identify the forces driving their BEHAVIOURS, FUTURE TRAJECTORIES, and IMPACTS.



PREDICT CONSEQUENCES

Predict what CONSEQUENCES these signals could have on your program objectives.



LEVERAGE ANALYTICS

Use analytical tools to categorise and group your insights in order of IMPACT and RELEVANCE.



OBSERVE SHIFTS

Look for SHIFTS in the behaviours and trajectories of the signals you care about and evaluate their impacts.



RESEARCH UNCERTAINTIES

In tandem with the 311 Institute PREDICT MODEL research UNCERTAINTIES and UNKNOWNS and their impacts.



EXPLORE INTERSECTIONS

Explore what could happen if the different signals you identified COLLIDE or CONVERGE.

COMPLETED? Move to the **PREDICT MODEL** to discover uncertainties and unknowns, or the **IMAGINE MODEL** to generate your Futures Scenarios ...



THE 311 INSTITUTE PREDICT MODEL.

PREDICT Model. Part of our custom designed 311 Institute

Deep Foresight Framework, and an integral part of all of the 311 Institutes

Strategic Foresight programs, the objective of this model is to help you identify critical uncertainties, that you can then discuss, and unknowns, that then become knowns which you can plan for.

Designed to compliment the information you gathered and explored in the **311 Institute EXPLORE Model** this model plays a key role in helping you minimise future surprises which, if not discovered, could have serious consequences on the future success of your strategic foresight program and all of its outcomes.

In this section I will walk you through the purpose of each step of the model and how to run your own PREDICT workshops.

INTRODUCING THE STEPS

1. Probe

In this initial step your mission is to seek out critical uncertainties and unknowns in the information you gathered during the 311 Institute EXPLORE Model stage. Relying on your investigative skills and using the methods and tools at your disposal dig deeper into the information you gathered, broaden your context and look beyond the obvious, and examine it all from new perspectives.

2. Recognise

Having identified uncertainties and unknowns next you need to establish and recognise the direct and indirect impacts they could potentially have on one another, on the information you've already gathered, and perhaps most importantly on your thinking - the latter of which is now hopefully more expansive than it was before and should make it easier for you to spot new ideas and possibilities.

3. Evaluate

In this step it's time to analyse and evaluate your new insights, rank them in order of impact against your programs objectives, and determine what ripple effects they could create and how those could impact the Futures Scenarios you'll be generating in the next stage of the program.

4. Decide

This step is all about deciding how you're going to address and manage your findings, whether that's finding ways to leverage them for your benefit or minimising their downsides.

5. Intersections

In this step you're given the chance to explore what happens when different uncertainties and unknowns collide and intersect with one another and discuss the threats or opportunities that might emerge as a result.

6. Constants

Even the behaviours and trajectories of uncertainties and unknowns are heavily influenced by Anchoring Constants - the term that we at the 311 Institute give to STEEP behaviours that don't change over time. Using the 311 Institute

Anchoring Constants Model align the uncertainties and unknowns you identified with the anchoring constants that have the greatest affect on them. Then group them together, estimate their future trajectories, and rank them by order of impact on your program objectives.

7. Transform

Finally, this step is about merging all your new insights with your work you did in the **311 Institute EXPLORE Model** stage. Not only will this add a huge amount of extra value to that stage, but it will also help you minimise future surprises and generate even more robust Futures Scenarios in the next stage of the program.



This **PREDICT MODEL** is part of the **311 INSTITUTE DEEP FORESIGHT FRAMEWORK**. Use it to help you discover uncertainties and unknowns.



PROBE

Actively SEARCH FOR and IDENTIFY sources of UNCERTAINTIES and UNKNOWNS in the environment.



RECOGNISE

Recognise and categorise the identified uncertainties and unknowns according to potential IMPACT and RELEVANCE.



EVALUATE

Evaluate the implications of these signals on your programs objectives.



DECIDE

Decide how to address the uncertainties and unknowns you identified.



INTERSECTIONS

Explore how different signals could COLLIDE or CONVERGE in complimentary and unexpected ways.



CONSTANTS

Explore how these intersections align with Constants using the 311 Institute ANCHORING CONSTANTS MODEL.



TRANSFORM

Incorporate your findings into the 311 Institute **EXPLORE MODEL** and evaluate their overall impacts.

PART OF THE 311 INSTITUTE DEEP FORESIGHT FRAMEWOR

THE 311 INSTITUTE IMAGINE MODEL.

ELCOME TO the 311 Institute
IMAGINE Model. Part of our
custom designed 311 Institute
Deep Foresight Framework, and
an integral part of all of the 311
Institutes Strategic Foresight programs,
the objective of this model is to help
you generate your strategic foresight
programs Futures Scenarios.

In this section I will walk you through the purpose of each step of the model and how to run your own IMAGINE workshops.

INTRODUCING THE STEPS

1. Investigate

In this first step you will thoroughly investigate all of the different signals, technologies, and trends that you identified during the EXPLORE Stage of the program and then you'll categorise them all by their impacts, and then rank them by the level of impact they have on your programs objectives.

2. Map Scenarios

In this step you start mapping out and developing your draft Futures Scenarios. You also get the opportunity to story board them and to really start thinking about how you would explain them to others and what it might be like to experience them.

3. Assess Opportunities and Risks

In this step the draft scenarios are scrutinised to assess their potential opportunities and risks. An important step this helps ensure you minimise any future surprises and, if necessary, have a way to manage the downsides of any risks that might manifest themselves in the future. Once you've completed your assessment you should then rank your scenarios according to the level of opportunity and risk they present.

4. Generate Scenarios

In this step you take everything you have

created so far and generate your final Futures Scenarios.

5. Investigate Emerging Signals

Now that you have generated your final futures scenarios it's important to do due diligence on them to ensure that no emerging signals which could have an impact on them later on have been missed. This step is crucial to minimise future surprises and to capture any last minute signals, technologies, or trends that could have over looked.

6. Navigate Uncertainties

Having created your final scenarios this step is optional, but none the less we strongly advise you use 311 Institute PREDICT Model to conduct one final check of your scenarios to try and identify any uncertainties and unknowns which, again, like the step above will help you minimise future surprises.

7. Evaluate Impacts

In this, the final step of this stage you conduct a quick evaluation of the direct and indirect impacts that each of the scenarios you've generated could have on your programs objectives. This will then lay the foundations for the enxt stage, the ASSESS Stage, where you'll be doing a more thorough analysis of them all before selecting the final few to take through to the ACT Stage.

This IMAGINE MODEL is part of the 311 INSTITUTE DEEP FORESIGHT FRAMEWORK. Use it to help you generate your Futures Scenarios.



INVESTIGATE

Investigate the signals you identified and categorise them by IMPACT and PRIORITY against your objectives.



MAP SCENARIOS

Start mapping out your Futures Scenarios.



ASSESS OPPORTUNITIES AND RISKS

Assess your draft scenarios OPPORTUNITIES and RISKS, in line with your program objectives, and rank by IMPACT.



GENERATE SCENARIOS

Generate your final Futures Scenarios by bringing everything you have discovered together.



INVESTIGATE EMERGING SIGNALS

Do a final sweep of your Futures Scenarios to try and identify any EMERGING SIGNALS you may have missed.



NAVIGATE UNCERTAINTIES

If desired use the 311 Institute PREDICT MODEL to SCAN your Futures Scenarios for uncertainties and unknowns.



EVALUATE IMPACTS

Evaluate the DIRECT and INDIRECT impacts of your final scenarios on your programs objectives.

COMPLETED? Move to the **ASSESS MODEL** to help you assess and analyse the Futures Scenarios you just generated ...



THE 311 INSTITUTE ASSESS MODEL.

ASSESS Model. Part of our custom designed 311 Institute

Deep Foresight Framework, and an integral part of all of the 311 Institutes

Strategic Foresight programs, the objective of this model is to help you assess the credibility and viability of the Futures Scenarios you generated in the previous IMAGINE Stage before proceeding to select the final scenario or scenarios - that you want to translate into actionable initiatives in the final stage of the program, the ACT Stage.

In this section I will walk you through the purpose of each step of the model and how to run your own ASSESS workshops.

INTRODUCING THE STEPS

1. Align With Objectives

This first step is about doing due diligence to assess whether or not each of the Futures Scenarios you generated in the previous stage align with your programs overall objectives and your organisations strategic direction. A crucial step this step ensures that you understand how well, or not as the case may be, your scenarios align with your with your desired outcomes, your key objectives, and your priorities, and ensures that your scenarios are relevant and can contribute meaningfully to your organisations future.

2. Scrutinise Assumptions

In this step you critically examine the underlying assumptions of each of your scenarios - assumptions which if not found and examined could influence their future behaviours, trajectories, and success for better or worse. An important activity this is where you get the opportunity to hunt for subconscious bias, among other things, and assess your scenarios overall credibility and viability to make sure they are built on realistic and solid foundations.

3. Synthesise Insights

In this step the aim is to synthesise the

insights from the analysis you've done so far and identify common patterns, themes, and trends. These insights are invaluable as they'll help shape your future strategic decision making and guide many of your future actions.

4. Evaluate Impact

Having completed a significant amount of analysis already it's now time to evaluate the impact that each of your scenarios could have on the different parts of your organisation and its activities including, but not limited to, brand reputation, finance, marketing, operations, product development, sales, stakeholders, and more. A key step this will help you assess the likelihood and magnitude of different outcomes associated with each scenario, and will help you to start prioritising them based on their potential positive impact to the business.

5. Stakeholder Engagement

Open and honest engagement with key

stakeholders is crucial for the proper analysis and dissection of your scenarios. This step involves engaging a diverse range of stakeholders from inside and outside of your organisation to get the necessary feedback from a diverse range of opinions and perspectives. Not only can this feedback be used to help you improve the relevance of your scenarios to your organisation, but it can also be crucial in helping you secure the right stakeholder buy in and support as you move to the next stage of the program, the ACT Stage, where you will finally translate your chosen scenarios into actionable initiatives.

6. Sensitivity Analysis

This final step involves conducting a sensitivity analysis to test the resilience of each scenario to different critical uncertainties or variables that could influence their outcomes. It helps identify which parts of a scenario are most susceptible to change and which are more robust, and gives you a better understanding of the scenarios ultimate survivability and viability.



This ASSESS MODEL is part of the 311 INSTITUTE DEEP FORESIGHT FRAMEWORK. Use it to help you assess and analyse your Futures Scenarios.

A

ALIGN WITH OBJECTIVES

Ensure that each Futures Scenario you generated aligns with your program objectives.

S

SCRUTINISE ASSUMPTIONS

Scrutinise the underlying assumptions of each scenario to assess their CREDIBILITY and VIABILITY.

S

SYNTHESISE INSIGHTS

Identify COMMON THEMES in your Futures Scenarios and explore how they affect future decision making and actions.

E

EVALUATE IMPACT

Evaluate the IMPACT of each Futures Scenario on all aspects of the organisation and rank them by positive impact.

S

STAKEHOLDER ENGAGEMENT

Solicit FEEDBACK and insights from key stakeholders from inside and outside of your organisation.

S

SENSITIVITY ANALYSIS

TEST your scenarios resilience to different critical uncertainties, shocks, or variables that could influence their outcomes.

RT OF THE 311 INSTITUTE DEEP FORESIGHT FRAMEWO



THE 311 INSTITUTE ACT MODEL.

ACT Model. Part of our custom designed 311 Institute Deep Foresight Framework, and an integral part of all of the 311 Institutes Strategic Foresight programs, the objective of this model is to help you finally translate the Futures Scenarios that you generated in the IMAGINE Stage of the program into actionable initiatives that can, depending on your programs goals, be anything from the creation of a new company strategy or vision to the creation of new products or programs, and anything else you desire.

In this section I will walk you through the purpose of each step of the model and how to run your own ACT workshops.

INTRODUCING THE STEPS

1.Align Vision and Objectives

This first step is about ensuring that there is a strong alignment between the Future Scenarios that you generated and the overarching objectives of your strategic

foresight program. It's critical that the vision for the future is consistent with the goals and objectives that have been set out.

2. Collaborative Workshops

In this step everyone who has a vested interest in the program and all the relevant key stakeholders must take part in one or more collaborative workshops with the exclusive goal of transforming the insights gained from the foresight program into actionable strategies. These workshops are designed to be hands on sessions where stakeholders can engage with the material and each other to craft practical steps forward.

3. Translate Into Action Plans

In this, the ultimate final step of your entire strategic foresight program, you get to translate the outputs from the previous steps into concrete action plans that have the appropriate levels of funding and support, clearly defined goals, measurement metrics, and milestones, and suitable senior level ownership.





This **ACT MODEL** is part of the **311 INSTITUTE DEEP FORESIGHT FRAMEWORK**. Use it to create actionable initiatives and strategies.

A

ALIGN VISION AND OBJECTIVES

Ensure alignment between your final Futures Scenario(s) and your foresight programs objectives.



COLLABORATIVE WORKSHOPS

Facilitate collaborative key stakeholder workshops to create actionable initiatives from the foresight programs insights.



TRANSLATE INTO ACTION PLANS

Translate your strategies into actionable, measurable, and well resourced initiatives with clear timelines and ownership.

PART OF THE 311 INSTITUTE DEEP FORESIGHT FRAMEWOR





PERHAPS THE main reasons you're reading this codex, and perhaps some of the others in our Codex of the Future Series, is because you're curious about the future and want to understand how different emerging concepts, ideas, signals, technologies, and trends could impact the future of your country, industry, or organisation. Or all of them.

If that's the case then you'll no doubt quickly realise two things: firstly, there's a huge amount of information to explore spanning thousands of different topic areas, and secondly trying to explore the literally infinite number of ways they can all interact with one another, directly and indirectly, to create and shape what we refer to as "the Future" can be daunting.

Ultimately, the upshot of this is that if you want to be able to explore all this and turn your discoveries and insights into actionable initiatives which help you prepare for these Plausible, Possible, Preferred, Probable, or Preposterous futures then you need Strategic Foresight.

And this is where we come in, not with one or two strategic foresight programs, but three.

OUR THREE FORESIGHT PROGRAMS

Why three you might ask, and the answer is simple. Like the rest of us you likely only have a certain amount of resources and time that you can dedicate to a program, a certain number of people, and it's also likely that everyone participating will have different abilities, backgrounds, objectives, and strengths.

Some of you, for example, might want to run a quick, discrete strategic foresight session with just a few people during a break, some might want to run a fully fledged program that shapes the future of the organisation, and some might want to build companies that disrupt and dominate new and existing markets.

This is why, as your companion and guide through your journey into the future I developed three programs that anyone, irrespective of their ability, background, or circumstances can use.

They are the 311 Institute Deep Foresight Horizon LITE, PRO, and ELITE programs, and as the names imply they go from light touch and lightning fast to being fully comprehensive and requiring enduring commitment.

Horizon LITE

This is my lightest and fastest strategic

foresight program. It's a one hour workshop that anyone can run with minimal facilitation, preparation time, and resources, with just a few participants. It was specifically developed for those of you who are incredibly time poor, and for executives and organisers who might want to run a foresight workshop during lunch, at a company event, or any other time.

Horizon PRO

The 311 Institute's dedicated Strategic Foresight Program meanwhile is a **multi-week program** that you can run yourselves in the comfort of your own offices and with your own teams at your own pace. As one of the worlds few end to end strategic foresight programs it has been specifically developed to take you from a blank page to a fully actionable company strategy or set of actionable initiatives - whichever you prefer.

In it I provide you with everything you need including the resources, tools, and even the mindset and skills, to run your own strategic foresight program, as well as giving you the opportunity to run your own discrete individual Framing, Research, Scenario, and Futures Design workshops if you so wish.

Horizon ELITE

Last, but certainly not least, is our Horizon Elite program, a literal first of a kind program that is so comprehensive it has its own separate codex, the **How to Build Exponential Enterprises Codex**.

Unlike the Horizon Pro program this program takes you from a blank sheet of paper to a fully launched and scaled disruptive "Exponential Enterprise" that has everything it needs to dominate new and existing market opportunities.

Based on our conversations with some of the world's largest companies, including Shell whose teams literally invented scenario planning back in the 1970's, it was specifically designed to help companies, of all sizes, in their own terminology "Cross the Chasm" and help them envision the companies and markets of tomorrow and then give them everything then needed to transition from where they are today, their current operating model, to where they want to be tomorrow, their future operating model. Hence the crossing the chasm analogy.

Called the 311 Institute ExPLORER

Program this is a six month program
that is considered by many Fortune

100 companies as the Gold Standard of disruptive innovation and strategic foresight programs, with many of our clients using it to try to develop what they call "Centennial Companies" - companies who survive and thrive long enough to see in their first century of business - and the even, in the case of the UAE and other governments, develop the countries of the future.

311 INSTITUTE CORIZON ELITE

START WITH A BLANK PAGE BUILD A DISRUPTIVE COMPANY LAUNCH AND SCALE IT

S PREVIOUSLY explained this program is so comprehensive we gave it its own book - the How to Build Exponential Enterprises
Codex which you can download for free from our website or by using the QR code in the index at the start of this Codex.

The objective of this first of a kind program is straight forwards - to give you all the resources, tools, and mindset you need to build, launch, and scale a disruptive company - or country as in the case of many of our clients in the Middle East - that can dominate new or existing market opportunities from scratch.

That said, obviously, doing this is difficult not only requiring a paradigm shift in corporate and government culture, but also requiring

simultaneous
changes to the way
that leadership
teams evaluate
opportunity and
risk, and how they
build capability,
products, and visions,
and then launch them
into the markets they
care about.

Born out of conversations with the leaders of some of the worlds largest companies on the one hand this program is for entrepreneurs and intrapreneurs who have nothing more than a blank piece of paper in front of them, and on the other hand it's for executives who in their own terminology talk about the problem of "Crossing the Chasm," or in other words those executives who don't have a clear picture of how their future companies would operate in what markets and what products they would sell in the future, whether that's the near, medium, or long term future.

As more executives worry about the future and their company's ability to survive and thrive in it, with PWC's latest Annual Global CEO Survey finding that 45% of 4,702 respondents across 105 countries don't believe their companies will be viable in a decade without reinvention, today you can see that today it's more vital than ever that people have access to the experts and tools they need to re-imagine and reinvent their companies. And this is precisely what the 311 Institute ExPLORER Program, a seven step program that puts everything you need right at your fingertips, becomes invaluable.

The seven stages are as follows:

The **ExPLORE** and **PREPARE** stages are all about establishing the right culture and mindset within your organisation, securing sponsorship and resources, recruiting the Core Team who will lead your program, and recruiting the PATHFINDER and PIONEER TEAMS who will assume the central role during the program's **LAUNCH** phase, with the Pathfinder Team helping to create disruptive innovations that align with Horizon 3 thinking, and the Pioneer Team finding new ways to extend the competitiveness of your company's existing products in line with Horizon 1 and 2 thinking.

The LAUNCH phase is then all about discovering new disruptive ideas, technologies, and trends and developing new product and product concepts that will help your organisation dominate existing markets while at the same time opening up new market opportunities.

The last four stages which are ORGANISE, REVIEW, EXECUTE, and REPEAT then give you everything you need to develop your new go to market strategies, raise capital and create new company vehicle structures if desired, and sell and promote these new products into the market. And then, of course, starting all over and repeating everything again.

311 INSTITUTE HORIZON HILLE

RUN A 60 MINUTE FORESIGHT SPRINT

et's FACE it in today's fast paced unforgiving world we can all play the "I'm too busy" card - even too busy to run a strategic foresight program that could save the company from future bankruptcy and ruin. Burn.

Alright, I know you get the point otherwise you wouldn't be reading this codex, and I'm just playing with you there. But, on a more serious note, if you only have an hour or so to spare in your hectic day, week, or month then I still don't think you should have to miss out on running your own strategic foresight program, so that's why I've developed this special one hour sprint that you and your colleagues can do in your lunch time - assuming your busy schedule allows you a lunch time that is.

To keep things simple this sprint focuses solely on exploring alternative futures and ideating new products so you can realise the benefits of those futures and or minimise their downsides in a very fast way. And, while it's true that it's impossible to boil the ocean as they say

in an hour these fast sprints are purely designed to let anyone, with minimal commitment, resources, and skills, generate impressive results that inform your future thinking and help you generate new product ideas that have future potential and market impact.

So get going.

112

WELCOME & INTRODUCTION

10 MINS

Clearly outline the workshops objectives and time horizon, the topics you're interested in and the their importance, then give participants a brief introduction to Foresight and Horizon thinking.

9

IMAGINEERING. THINK WHAT THE FUTURE COULD LOOK LIKE.

15 MINS

Participants contemplate and discuss the impact the future could have on the chosen topics. They can be given help and access to research materials and can use the **Solution Board Worksheet** as an companion aide. Once discussions are concluded their output - the opportunities or problems - should be entered onto the **H123 Assumptions Worksheet**.

3

SOLUTIONEERING. IDEATE INITIATIVES AND SOLUTIONS.

15 MINS

Participants now have the opportunity to think about what new initiatives or solutions the organisation could create to address these opportunities or problems. Use Reverse Brainstorming if they get stuck. When complete both the problem and the accompanying initiative or solution should be summarised and entered onto the **Idea Feasibility Map Worksheet**.

4

10 MINS

VOTING TIME. VOTE ON THE TOP INITIATIVES AND SOLUTIONS.

Ask the participants to quickly debate and vote on the initiatives or solutions they would like to see being taken forwards and actioned by the organisation.

5

SUMMARY & NEXT STEPS

10 MINS

Summarise and close.

H123 ASSUMPTIONS 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FORESIGHT SPRINT WORKSHOP



Use this sheet to map out the key assumptions you have made for the time horizons you care about, place each assumption in the appropriate Horizon, these being Horizon 1 for near term, Horizon 2 for medium term, and Horizon 3 for longer term assumptions.

this resource and other innovation resources.

HORIZON 2 HORIZON 3 HORIZON 1 WHAT WE CARE ABOUT: Click or scan to download

DEA FEASIBILITY MAP 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FORESIGHT SPRINT WORKSHOP



Use this sheet to map out your ideas by how easy or hard they are to do where this includes everything from developing to implementing and marketing the ideas.

HARDER FEASIBILITY EASIER



SOLUTION BOARD 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FORESIGHT SPRINT WORKSHOP



Use this sheet to explore the assumptions you've made about the future, the problems those assumptions create for your customers, and how you would solve those problems for the customer groups you've identified.

TEAM NAME AND NOTES:

ASSUMPTIONS

The assumptions you are making about the future as it relates to your chosen topic.

SO WHAT?

What problem or problems do these assumptions create for your customers, and why would they really care?

THE STAKEHOLDERS

Who are the real stakeholders with these problems? Describe them.

2

PROMPT

Any facilitator prompts or suggestions.

THE SOLUTIONS

Ideate solutions to these problems.



TPATIENCE AND FORESIGHT ARETHE TWO MOST IMPORTANT QUALITIES IN BUSINESS."

- Henry Ford , Founder , Ford Motor Company

311 INSTITUTE CORIZON PRO

START WITH A BLANK PAGE RUN A FORESIGHT PROGRAM CREATE YOUR NEW STRATEGY

THE SOLE purpose of the Horizon Pro program is to give you everything you need - all the resources, tools, and mindset - to take you from a blank piece of paper to a fully developed actionable company strategy that you can execute - with this latter component setting this program apart from all its peers.

As always, our objective at the 311 Institute is to provide you with everything you need to help you become future fit, future ready, and dare we say future proof. Okay, maybe not future proof but in our heads that's our ultimate objective. The result of which means you now have

access to an easy four stage strategic foresight program that you can run in its entirety, or just cherry pick the parts of it that you're most interested in.

The four stages are as follows:

1. FUTURE FRAMING

The first and arguably most crucial stage is the ability to clearly frame and articulate your programs objectives and scope and the kinds of detailed or broad brush Horizon 1, 2, or 3 futures you want to explore during it.

2. FUTURES RESEARCH

The next stage in your quest to envision and explore the Plausible, Possible, Preferable, Preposterous, and Probable short, medium, and deep futures, is to gather lots of relevant qualitative and quantitative research - which can include any kind of information from any source - that you can analyse and use to develop your futures scenarios with.

3. FUTURE SCENARIOS

Next, the development of different future scenarios and the ability of different stakeholders to empathise, explore, and experience them and their many intricate implications is another crucial part of the program whose importance must not be underestimated.

4. FUTURE STRATEGY

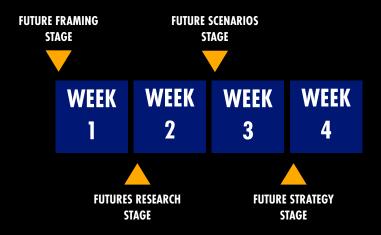
Then last, but not least, in the future strategy stage of your program your mission is to select a small number of preferable scenarios from the previous stage, assess and filter them, and translate the winning scenario into an actionable company strategy that you can execute.

HORIZON PRO PROGRAM TIMINGS

During the course of this program you will learn how to frame and create futures scenarios that align with your organisations core mission and future objectives then translate them into actionable organisational strategies and visions.

SCHEDULE

You have FOUR WEEKS to complete this program. However, if you need more time or less then that's your call.





HETHER YOU'RE running the entire 311 Institute Strategic Foresight Program or just a few discrete workshops that focus on one or more of the four stages - Future Framing, Futures Research, Future Scenarios, or Future Strategy - you'll need to be prepared, so in this section I'll be giving you everything you need to prepare and run anything or everything that you want.

GET READY

You'll find that preparing and running your workshops is an involving process that requires a deep understanding of both the theoretical underpinnings of futures studies and the practical considerations of workshop facilitation, so here I've synthesised a brief overview of what I consider to be the key topics you'll need to be aware of to help you through the process.

1. Understand Futures Foresight

Before diving into the practicalities of running your own workshops it's crucial that you have a firm grasp of the principles of Futures Studies. This discipline is not about predicting the future, but about exploring multiple future scenarios and understanding the

dynamics that might lead to them.

2. Define Clear Objectives

As with anything you set out to do you're always going to achieve more and be more likely to succeed if your program and workshops have clear objectives - this is just one reason why the first stage, Future Framing, is so important.

These objectives can be anything you like, and once formed they will guide and influence every aspect of your program, from participant selection and the location you run out of, to the methods and tools you use, and everything in between.

3. Select the Right Participants

Programs thrive when the participants are a diverse group of individuals comprised of divergent - rather than convergent - thinkers that are fully engaged with the process. This is why the most successful programs and workshops always include people with a broad range of backgrounds and experiences. Therefore, keeping this at the fore front of your mind, be sure to recruit participants from different backgrounds and industries as well as with different

experiences and seniorities.

4. Choose your Methods and Tools

There are many methods and tools that you can use in your workshops and each of our program stages include details of the ones we use and recommend as well as any additional resources we think you'll find helpful.

That said though ultimately the ones you choose will depend on your objectives, your participants, and what you're comfortable with, so if you aren't a fan of our recommendations then just go ahead and substitute them.

5. Design an Engaging Agenda

To get the best from the program it's important that you have a good agenda with a good flow that can keep the energy and momentum of the program going from start to end, so be sure to craft an agenda that builds gradually, builds bonds between participants, and that builds a common understanding of futures thinking, as well as one that appropriately balances discussions, interactive activities, participatory exercises, and other tasks with the experience and expertise of your

participants and your objectives.

6. Facilitate Effectively

The facilitators role is to guide the discussions during the workshops without dominating them. We recommend that your facilitator or facilitators, depending on the size of your program, should be knowledgeable of the process, be proactive and well respected, understand that they are in control of the sessions and are responsible for their smooth running, and that they should be capable of managing divergent viewpoints constructively while keeping all of the participants engaged and focused.

7. Incorporate Real World Context

Throughout your program it's important that your scenarios and discussions are grounded in a real world context. Not only will this make the exercises more actionable and relatable for the participants, but it will also help ensure that technological advancements, trends, and other factors are incorporated into your scenarios.

8. Document and Follow Up

As with any activity it's important that you maintain good documentation through and that you meticulously document the outcomes of your workshops. This includes documenting all key insights and outputs, the range of scenarios developed and resulting potential strategies, as well as all manner of other information - all of which should then be shared with the participants and relevant stakeholders. Additionally, you should also plan for follow up sessions to revisit the scenarios and refine strategies as needed.

and perspectives you should now be able to facilitate workshops that not only explore possible futures but also inspires innovative thinking and strategic planning within your organisation.

9. Continuously Learn and Adapt

Finally, the field of futures studies is continually evolving, and nothing stays still so you should do your best to stay abreast of new case studies, methods, and theories. You should also reflect on each workshop and seek feedback to continuously improve your approach.

SUMMARY

Running a successful futures foresight program demands a blend of continuous learning, practical skills, and theoretical knowledge, all of which we provide at the 311 Institute. By following these guidelines and staying open to new ideas



BEFORE YOU even think about beginning your foresight program you first have to clearly define and communicate your objectives and scope, and your conduct and performance during this stage can determine the success or failure of your entire program.

While there are many methods you can use to frame your program in my opinion this one I'll walk you through is the simplest and yields the best results for organisations who want to create compelling futures scenarios that can be converted into real world actionable strategies and visions.

Framing, which includes both the creation of a single clear "Mission Sentence" that will become your program's North Star, as well as planning the details of how you're going to run your program is made up of three distinct components: **Domain Description, Assessment**, and **Logistics**, and I'll get to those soon.

CRAFTING A MISSION SENTENCE

Your first objective during this stage is to craft your all important mission sentence which involves conducting as many interviews as possible with all manner of different stakeholders - both within and external to your organisation - with

the aim of gathering together all the information described in the following domain description section.

While your final sentence can arguably have any structure and contain all manner of "things of interest" such as activities, behaviours, industries, target groups, time horizons, topics, and many others I'd strongly encourage you to be wary of crafting sentences that are too broad or too detailed since both these could impact your teams ability to discover meaningful insights and affect the overall value of your program.

Some Examples

While there are no limits on the final sentence you construct there are obviously good examples and bad ones so here are two good ones to get you off to a flying start.

The first way is to craft a straight forwards "Future of [Something] in [Year]" sentence that you can explore with an example of being "The future of Mobility in 2040" which, unsurprisingly, means that the futures scenarios you create in the next stage will explore the future of mobility in the year 2040. The second way is to structure your sentence as a question such as "How

SOME EXAMPLES.

"OUR FUTURES SCENARIOS WILL EXPLORE THE ...

- ... FUTURE OF ENERGY IN 2040."
- ... FUTURE OF ENERGY BUYING IN 2040."
- ... FUTURE OF ENERGY BUYING IN JAPAN IN 2040."
- ... IMPACT OF RENEWABLES ON OUR ENERGY PORTFOLIO IN 2040."
- ... AND MANY MORE."

SO MANY EXAMPLES. SO MANY POSSIBILITIES.

will [Target Community] [Do Something] in [Year] and how will that affect [Something]?" with a simple example being "How will families buy electricity in 2040 and how will that affect our future product development?"

As you can see when it comes to crafting your own sentence it's not particularly hard to do, but that said it's absolutely crucial that you fully understand your organisations objectives, misunderstand them or get them wrong and your entire program will be focusing on the wrong goal and end up failing to deliver the expected value.

It's also important to note that the sentence you craft invites open ended responses rather than Yes No ones which help to reinforce your programs objectives - namely to create futures scenarios and not predictions.

Finally, the sentence type you choose should be dictated by your organisations operational concerns and objectives, which is something you can determine as you conduct your pre-program interviews.

DOMAIN DESCRIPTION

Now I've walked you through the basics

of a good mission sentence it's time to gather together all the information you'll need to create it, and this is where the domain description component comes into play.

The first component of framing, domain description, involves deciding what kind of future scenarios you want to create and focus on so, unsurprisingly, it forms the bulk of this stage.

It has four steps: Focal Issue, Geographies, Time Horizon, and Stakeholders, and working through each of these steps will help you zero in on the things that matter most to your organisation so you can craft that perfect sentence.

Focal Issue

This step describes the central issue - the focal issue - that your organisation wants to explore, and determining this will arguably be your greatest challenge as all the stakeholders you interview during this step will likely all have their own politically skewed objectives and competing agendas. It is important, therefore, that you have a plan, remain unbiased, and that your program is led and supported by people who are able to see the big picture and render

all these agendas and objectives into a format you can use.

Geographies

In this step you constrain your programs geographical boundaries because, let's face it, when it comes to researching your focal issue there will be some countries or territories you'll be interested in and some it won't, so it's important that your team knows what these boundaries are.

For instance, on the one hand futures scenarios with the focal issue "The future of Mobility in 2040" might well prefer to take a global viewpoint, while on the other scenarios such as "How will [People] in [Territory] buy [Products] in [Year]?" could take more of a local viewpoint.

Needless to say adding these geographic constraints into your mission sentence will have a significant impact on your entire program and its outcomes.

Time Horizon

In this step you must decide how many years into the future the scenarios your teams create are going to cover. For most organisations the bare minimum is five years, below which a forecasting rather than foresight approach would probably be best, but needless to say futures scenarios can go as far into the future as you like and, for example, we have plenty of clients who want to be able to celebrate their hundredth year in business so look ahead fifty years or more.

When thinking about what your ideal time horizon is it's also advisable to consider the impact that various Social, Technological, Economic, Environmental, and Political (STEEP) trends, as well as others such as industry and market specific ones, could have on your focal issue and align with them appropriately.

These trends can literally include anything and everything but ones such as the rate of technological change as well as the social and political trends at play within your geographies and markets of interest should always be at the forefront of your mind.

For example, I when it comes to technological change it should be fairly easy for you to figure out which technologies you should be paying attention to by looking at your focal issue and determining which technologies are embedded into it. Then, the faster the rate of change of such technologies,

as I've discussed elsewhere many times before, the shorter your time horizon should be.

For instance, scenarios with a focal issue that includes "DeepFakes" or even more broadly "Entertainment" could have a relatively short time horizon, while scenarios with a focal issue that includes "Climate Change" could have a much longer one. Fundamentally this difference is because of the different rates of technological change embedded within those focal issues and the ones you care about.

Meanwhile, when it comes to political and social trends you might more closely align your time horizon with election cycles or important social issues of the time.

As you should be able to tell from just these few examples selecting the right time horizon for your program can be trickier than you might at first think, but nonetheless it's important everyone agrees on it and makes an informed choice.

Stakeholders

This final step refers to all the different stakeholders of interest to you - both

external and internal to the organisation - who can add value to your program and who could be directly or indirectly impacted by your focal issue and your futures scenarios.

Stakeholders can literally include anyone who you think will be relevant including but not limited to advisors, customers, executives, experts, partners, and even competitors, as well as advocacy groups, communities of interest, policy makers, and many others.

If there's a key take away here then it's leave no stone unturned, and making sure you include and interview everyone you need to, while maintaining cultural and political neutrality, will be crucial when it comes to helping you craft and explore your future scenarios and their impact on each of the different stakeholder communities you care about.

ASSESSMENT

Now you have completed the first component assessment involves deciding the purpose of your futures scenarios. For instance, what are they going to be used for.

Unlike domain description which focuses simply on your organisations objectives

for the program this component focuses more on the desired overall outcomes for your program and how they will all be measured. It has two steps: Expected Outcomes and Measurement.

Expected Outcomes

These are your organisations desired outcomes for the program, and they can be tangible and non-tangible.

They can also have an impact at the organisational level, for example to influence future investments and inform innovation, recruiting, and training initiatives, as well as at the individual level, such as building awareness, creativity, and engagement.

Once you've chosen the outcomes that matter to you and that you want to realise then you'll then need a way to measure them.

Measurement

This step refers to all the different methods and tools you have at your disposal to assess at the end of the program whether or not it's achieved your expected outcomes. While this step can include simple activities such as conducting interviews and surveys it can also include more advanced methods such as Case Study Analysis, Grounded Theory Analysis, Regression Analysis, and many other methods. Ultimately, the method you choose will be based on your own organisations goals and objectives and the level of resources you have at your disposal.

LOGISTICS

Finally, the third and last component of this stage, logistics, involves planning all of the technical particulars of the program itself, and needless to say there's a lot to think about and do during this component to make sure you have everything and everyone you need to give the program the best chance of success.

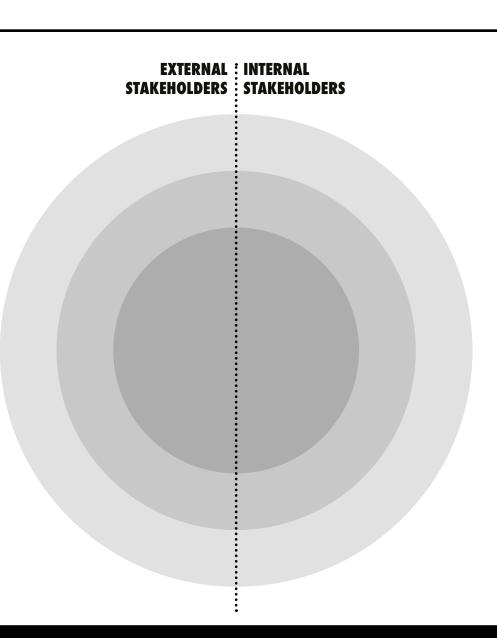
From selecting your program's Scenario Team, facilitators, and other necessary stakeholders, to determining the duration of the program and the right location and facilities, as well as ensuring you have all the resources and support you need there's a whole host of things you need to be on top of.

STAKEHOLDER MAP 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FRAMING STAGE



Use this sheet to map out the external and internal stakeholders who are most relevant to your program and its objectives. Place the more relevant ones nearer to the center of the circle and the less relevant ones towards the edges, and remember to include senior stakeholders.

TEAM NAME AND NOTES:





"THE FUTURE ISN'T WHAT IT USED TO BE."



HEN IT comes to trying to craft futures scenarios or decode, envision, and predict the future the "'What' [happens next?]" is equally as important as the "How?" and "When?" it, whatever it is, happens.

However, in order to answer these and other pertinent questions, and to find what we call the "Driving Forces" of change that will shape the future, you'll need to be disciplined about how you conduct your futures research, and focus on its breadth, depth, and quality.

BEWARE THE FUTURE PARADOX

Ironically, when it comes to forecasting the future one of the odd things you'll need to get your head around is that there's a paradox to contend with that if left unmentioned could lead to teams being over confident in the accuracy of their predictions and have unintended consequences down the line.

On the one hand we are often regularly told even by many Futurists - just explore YouTube or your favourite information source - that you can't predict the future. But, on the other all of us know with certainty that in the future Artificial Intelligence (AI) will be more capable and powerful, battery

and computer storage densities will be greater, cameras and imaging systems will be higher resolution, computers and networks will be faster, and that cars will be autonomous and electric - just for example.

Which then leads us to wonder how is it that almost anyone - even Joe public off the street - can know any of these things with any kind of certainty? And the answer is simple. It's because we can all see these things happening with our own eyes, and analyse, assess, and extrapolate out thousands of complimentary data points and indicators.

For example, in the case of Electric Vehicles (EV) we can - dare I say - be certain that future vehicles will be battery based - vehicles that people refer to as Battery Electric Vehicles or "BEV" for short.

The reason for this is because we can see them in the showrooms and on our roads, we can see sticker prices falling and numbers and ranges increasing, we can see more investments being made and more infrastructure being built, and we can read about the new government policies which ban the sale of internal combustion engines from 2035 onwards. Gather together these and lots of

137

other relatively easily observable data points and it doesn't take a highly paid professional foresight team to figure out that the future of vehicles, and ergo mobility and transportation in general, will be electric and battery based.

Making a "prediction" like this is only possible because in some cases we have enough experience, expertise, and insights, to let us see beyond the horizon with almost abject unabated confidence. Yet, even though at times it seems like we can be absolutely certain with our predictions there are always "Wild Cards" that can creep in and change things.

I call this the future paradox, and sometimes these wild cards might mean we have to modify our predictions mid flight, and in others they can quickly render what seem even our most confident predictions obsolete.

In the case of BEV's for example these wild cards can include the sudden reversal of government policies and favourable tax incentives - as we saw happen with the Trump administration in the early 20's. Then there's also the potential emergence of new breakthrough innovations and technologies, such as the ability to distribute Hydrogen through the existing

gas networks, and the development of fuel cells - the combination of which could suddenly make Hydrogen Fuel Cell Electric Vehicles (FCEV) an increasingly viable alternative, and many other examples.

It's for these and other reasons therefore why we must always prepare our forecasts and futures scenarios carefully, be able to adapt them quickly, and only ever present the future in terms of Plausible, Possible, Probable, Preferable, and even Preposterous futures - setting the right expectations is everything.

RESEARCH AREAS

When it comes to crafting and exploring all these potential futures and researching information that is pertinent to your program there are many sources of information you can explore to gather together the information and insights you'll need to create and inform your futures scenarios in the next stage. Below are just a few.

Alternative Industries

The vast majority of organisations all too often limit their research to what their competitors and peers in the space

are doing, but as organisations become increasingly digital and global, and as the boundaries between many previously distinct and siloed industries continue to erode the things and trends that could influence and shape your own future are just as likely to come from another alternative industry as from your own.

Alternative Languages

When doing your research searching in alternative languages can also yield a valuable amount of information, with the added bonus that this particular approach can also provide you with a new perspective on things.

Centers of Gravity

Part of being a good foresight expert or futurist is being able to detect intangible signals that could easily be missed or overlooked by others that could have material consequences on what the future ends up being. One of the methods we use to identify these intangibles is to look out for what we call Centers of Gravity. Just as we can see new stars in spiral galaxies being formed by spotting the tell tale signs of inter stellar gasses coming together around a center of gravity we can use this same principle to identify

signals that look they are coalescing and then assess the likelihood that they'll create a new trend, technology, or futurescape.

Disruptive Startups And Upstarts

Today starting a business is cheaper and easier than ever before and with net new company registrations soaring above 100 million in just the past few years there are more entrepreneurs than ever before looking for chinks in established industry value chains and developing new products and services that help them craft the future in the image of their choosing rather than cow towing to the status quo. As a consequence while there is a huge amount of noise in this space there are also many inspirational things and trends for you to discover and explore.

Explore Far And Wide

Many people often limit their foresight programs to the confines of their own country, industry, or language, but by exploring wider and further than these artificial boundaries you will be amazed at the sheer volume and variety of new insights you'll discover.

Exponential Investors

The global investment community is often an area that most people overlook when it comes to researching new things and trends, but they like you are trying to predict and shape the future for their own advantage so in some ways they're your kindred spirits in this program - all of which makes them and their portfolios good candidates to research.

Exponential Problem Hunters

There are a great number of mass market exponential problems worth solving and exploring, so take time to research the challenges the world is facing and take time to explore the things and trends that they're fuelling.

Exponential Technologies

The 311 Institute Codex of the Future Series of books includes details on hundreds of emerging and exponential technologies that are all blank slates waiting for explorers like you to discover, these technologies are also often the driving force behind many of the new products and services, as well as things and trends we see, so your aim should be to explore as many of them as possible

in order to understand how they could influence and shape the future.

Keyword Combinations

Almost like a game of chance where sometimes you hit the jackpot and other times you don't, keyword combinations can be a great and simple way to help you find new information and sources of information as well as surface unknown unknowns. Furthermore, the combinations can be anything you like so my advice would be to create a reference dictionary of keywords and phrases that you can combine that align with the objectives of your program, with an example being "Nanotech + Breakthrough" which could help you find the latest Nanotech breakthroughs, and so forth.

Trend Hunters

The 311 Institute Codex of the Future Series also includes details on hundreds of powerful emerging trends that you can explore and research, all of which in their own way will influence and shape the future. By exploring them all you'll quickly discover that many of them influence many of the research areas I've highlighted here, and the scenarios and themes you care about.

"THE BEST WAY TO PREDICT THE FUTURE IS TO CREATE IT."

- Abraham Lincoln, 16th US President

DRIVING FORCE PROFILE 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: RESEARCH STAGE



Use this sheet to dive into a particular driving force - an insight, technology, or trend - in more detail, examine its potential applications within your business, and then plot the overall market impact and ease of adoption of those applications.

TEAM NAME AND NOTES:

DRIVING FORCE DESCRIPTION

Describe this driving force in detail including its origin and estimated future trajectory.

DRIVING FORCE IMPACT
What impact will this driving force have on our business and the markets we care about?

POTENTIAL APPLICATIONS

Provide examples or illustrations of its potential applications in your business and then plot their Market Impact and Ease of Adoption on the adjacent chart.

HIGH - EASY HIGH - HARD + **APPLICATIONS MARKET IMPACT LOW - EASY LOW - HARD EASE OF ADOPTION**



IT2 IMPACT MATRIX 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: RESEARCH STAGE



Use this sheet to categorise all the insights, technologies, and trends (IT2) you identified during your research according to their likely impact on your organisation and your programs scope.

TEAM NAME AND NOTES:

+	CAL		
	CRITICAL		
CT	OR		
IMPACT	MAJOR		
	æ		
	MINOR		
	REMOTE	POSSIBLE	LIKELY
- LIKELIHOOD +			

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that gives organisations the prime opportunity to combat the bias, misguided confidence, and tunnel vision that all too often affects and paralyses day to day business decision making by first identifying trends and uncertainties and then using them, along with other futures research, to create all manner of scenarios that stakeholders can debate, discuss, and explore which can then be used to enrich and inform your organisations near, mid, and long term strategy, thinking, and visions.

Among other things good futures scenarios not only help organisations create compelling shared visions of their preferred futures, but they also help foresight teams and stakeholders compensate for two common errors in futures related decision making and forecasting - namely the under prediction and over prediction of future change.

While most organisations are guilty of making the first error, even though it's evident for everyone to see that the global rate of change and disruption is accelerating, ironically many futurists – even the likes of Isaac Asimov and Alvin Toffler – are guilty of making the second error. All of which, if not properly addressed, could leave your organisation in a guandary, because on the one hand

you could have a group of stakeholders who are predisposed to under predict the future and on the other you could have others who might over predict it and expect levels of science fiction like change that, in the case of Asimov and Toffler, for example, many decades later still haven't materialised, such as Artificial Intelligence (AI) where robots don't yet outsmart us, medicine where we are still losing the war against Cancer, and space travel where we are still mostly Earth bound.

This stage is therefore a critical part of your program that allows you to chart a middle ground between these two opposing groups and create views of the future that are more reasonable and more likely to happen.

As an additional benefit the scenarios you craft can also be used to enhance the robustness of your organisations strategic thinking by helping you identify and challenge stakeholders underlying assumptions, as well as its conventional or established wisdom. It can do this in several ways. For example, by helping improve stakeholders awareness of change by shedding light on the complex interplay of underlying trends and uncertainties, by enhancing your organisations sensitivity to early and weak signals of the changes that lie

ahead and, most importantly, by giving everyone an open platform that lets them think through possible futures and explore and rehearse appropriate responses to them with impunity.

FUTURES SCENARIOS BASIC PRIMER

Now I've detailed the benefits of creating future scenarios let's level set quickly and walk through what futures scenarios actually are.

Scenarios are an important forecasting technique that organisations can use to create narratives about the future that they can use to debate, discuss, explore, and visualise that future.

While there is no creative limit on the methods or tools you can use to create your scenarios or how you present them to stakeholders there are obviously some that are more popular than others.

For instance, you can present your final scenarios to other stakeholders using imagery, presentations, story boards, videos, or even role play. You can even, if you choose to as some organisations are now doing, present them as Virtual Reality (VR) constructs. Unsurprisingly though the format you choose to use will depend on the time and resources

you have available so it shouldn't come as much of a surprise that the majority of organisations choose to create text based narratives that can take the form of everything from news articles to short form stories.

Irrespective of the format you choose to use though your futures scenarios must be able to clearly convey to your stakeholders the behaviours and impacts they will have on your organisations objectives as well as, if desired, business, culture, and society.

CREATING YOUR SCENARIOS

When it comes to the methods you can use to develop your futures scenarios there are, again unsurprisingly, more than you can shake a stick at so I've chosen the two that in my estimation are the easiest to follow and yield the best results.

The 6 Future Archetypes

This, the first method, helps you understand the characteristics of all the different driving forces you identified in the Research stage of this program which will all, in one way or another, influence and help shape your futures scenarios. It

has three steps.

First, explore your driving forces behaviours and categorise them according to the following six archetypes namely Baseline, Chaos, Collapse, Expansion, Regression, and Transformation - each of which describe their overall expected future behaviour.

Diving into what each of these terms mean Baseline is the continuation of the present status quo as it exists today that, importantly, doesn't change at all in the future. In short you can also think of this archetype as being a never changing "Stable State" hence the term Baseline.

Chaos is just as it sounds, where patterns and trajectories are no longer identifiable and everything becomes chaotic and unpredictable. It's also important to note here that you should not confuse unpredictable for uncertain as these are two very different terminologies.

Collapse is the worst case scenario and represents a future where the driving force or forces you're interested in reach their limits and collapse. In other words they cease to be.

Expansion is the continuation and enhancement of the current trajectory of a driving force. In other words an

expansion, or cautiously an evolution, of the present. While this might at first appear similar to the Baseline archetype it's important to note that they are indeed different since this is a continuation of the presents trajectory rather than an unchanging continuation of its current status quo.

Regression is when a present day driving force reverses and returns to a previous state - whether that state is recent or in the deep past.

Transformation represents a radical departure from the present due to a disruptive or transformative event and represents a time of new normals.

Now, having categorised all of your driving forces, secondly you need to give them all weightings according to their overall expected impact on your programs pre-determined objectives within the time horizon you care about.

Thirdly, it's now time to create your futures scenarios using the above categorisations to guide your thinking, and it's important to note that they can't be completely produced by your imagination - you'll need to able to support each of your narratives with quantitative and qualitative information. When we create scenarios using this

method there are, however, a couple of things you need to pay attention to.

First, you need to take into account all the driving forces you identified in your Research stage, even if their behaviour is counter-intuitive, stretch your imagination to think of alternative counter intuitive futures, and then support such arguments with references. Needless to say though this can be a quite laborious research task.

Secondly, you must remember that the scenario archetypes are generic. They're not necessarily positive or negative, good or bad, so they should be interpreted in both ways, and ideally include both positive and negative elements in order to make your futures scenario more plausible. Indeed, reality is never either completely Utopian or Dystopian it's a mix of both, and the same applies to scenarios.

The Uncertainty Matrix

The next method I'm going to talk about, which has its roots in the popular 2x2 Matrix, pairs the two driving forces of highest importance and greatest uncertainty that you identified during your Research stage with one another to help you craft your futures scenarios. It

consists of four steps.

First, taking the top driving forces you identified during the Research stage cluster together the ones that have a high mutual impact on each other. And what I mean by impact, just to be clear, is the degree they alter and influence one another's future behaviours and trajectories.

Second, using a line - a single Y axis - with the labels Plus or Minus determine what the extreme behaviours of these clusters could look like. We call these extreme behaviours "Factors" and once you've come to a conclusion about what these factors could look like give each of them a suitably descriptive name or tag line.

Third, plot these factors against two axes - an X and Y axis - one labelled "Impact" and the other "Uncertainty."

Forth, once you've completed your chart select the level of Impact and Uncertainty you want to base your scenarios on and craft your narratives based on the factors in those areas.

When creating scenarios using this method it's important to remember not to forget all of the other driving forces you identified during your research but

chose not to include in your chart. In other words, for each scenario you craft you'll still have to take into account the behaviour of the factors both inside and outside of your chart.

SCENARIO BUILDER 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: SCENARIOS STAGE



Use this sheet to examine different driving forces and craft futures scenarios that you can discuss and explore in more detail.

TEAM NAME AND NOTES:

List OF DRIVING FORCES List the driving forces you care about ranked by importance below then use the adjacent chart to compare them to one another and develop scenarios.	
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2	
3	
4	
56	
6	
7	
8	

SCENARIO 1 HIGH - LOW
Write a description of this scenario

WRITE NAME OF DRIVING FORCE HERE

+

SCENARIO 3 LOW - LOW
Write a description of this scenario

SCENARIO 2 HIGH - HIGH Write a description of this scenario **SCENARIO 4 LOW - HIGH** Write a description of this scenario

WRITE NAME OF DRIVING FORCE HERE



SCENARIO IMPACT MATRIX 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: SCENARIOS STAGE



Use this sheet to categorise all the futures scenarios you developed according to their likely probable impact on your organisation and your programs objectives and scope.

TEAM NAME AND NOTES:

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	CR						
IMPACT	MAJOR						
W	W						
	MINOR						
٠	W						
	REMOTE	POSSIBLE	LIKELY				
- LIKELIHOOD +							

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RANSLATING YOUR future scenarios from the previous stage into actionable future business strategies is an important but often over looked step. Indeed, a lot of organisational foresight work often stops after the creation of the scenarios in the previous stage while in reality they should always be used to help stakeholders create more robust and resilient future business strategies and visions.

Organisations can find the link between these two stages problematic for all manner of reasons. For example, it can be because of the lack of effective communication between the Scenario Team and other stakeholders, the unexpected withdrawal of funding or resources, time constraints, and many other reasons - most of which you'll find are avoidable with proper program management and planning.

You should also not underestimate the importance of having a structured and rigorous methodology you can use that enables your scenarios to be fruitfully used for decision making, and that ultimately helps you translate them into effective business strategies.

That's what I'll be covering in this section, and as I've mentioned previously while I'm going to walk you through some of

the most effective methods ultimately the ones you choose should be based on your organisations culture, objectives, and resources.

SCENARIO IMMERSION

The first method we'll take a look at is called Scenario Immersion. Developed by Ralston and Wilson of the Stanford Research Institute in their book "Scenario Planning Handbook" this method involves performing structured mindstorming about the implications of a different futures will have on the organisation.

In scenario immersion, the scenarios are presented to as many organisational stakeholders as possible in a workshop format. Then, for each scenario, each individual in the group is asked to identify as many threats and opportunities that that scenario presents for the organisation without any concern for their probability, and to write them down on sticky notes.

This could take several rounds and should be done until saturation, for instance when no new threats or opportunities are found. The facilitators then cluster the sticky notes into similar categories or groupings.

Finally, these stickies are placed where everyone can see them in the workshop room, and every member of the group is asked to act like decision maker and identify strategic responses to those threats and opportunities - these responses will be the basis of a strategic plan.

The strength of this method is that it allows an organisation to deepen the scenarios by quickly generating rich feedback to the scenario planning exercise, and the resulting full spectrum of ideas presented in dozens of sticky notes can be useful for decision making.

The downside of this method is that the strategies contained in those stickies might not be implementable because they're not created by the management, but by organisational members who might not be fully aware of the sunk costs and previous plans that are inherently constraining the organisation.

In other words, a limitation of this method is that it is disconnected to the company's strategic past. This limitation is what may lead us to use the next method.

WIND TUNNELLING

Wind tunnelling which is a form of policy

stress testing takes its name from wind tunnels - the systems that are used in vehicle engineering to test whether or not new vehicle concepts can withstand all manner of different erratic weather conditions.

In the corresponding foresight method, these erratic environmental conditions stand for the different conditions in the external environment presented in each scenario, while the vehicle stands for the pre-existing strategies of the organisation.

Unlike the previous method this one takes into account your organisations pre-existing strategies before a scenario evaluation exercise because it uses a so called wind tunnelling matrix to stress test all of your pre-existing strategies, such as marketing and research strategies, which are listed as rows, along with any others you wish to include, against each of your futures scenario which are listed in the columns.

More precisely, as with actual wind tunnels your organisations pre-existing strategies can then be evaluated against all of the different "strong conditions" of each one of your scenarios. Then, if they can resist them they are robust and can be retained, and if not then they either have to be redesigned or done away with.

The strength of this method is that it allows an organisation to pinpoint which pre-existing strategies are not going to be compatible or viable in the future, and thus, helps focus the executives attention on those strategies that prove robust under all scenarios.

Moreover, this method is very flexible, as not only can it be used to test an organisation's pre-existing culture and strategies against different scenarios, but it can also be used to investigate your competitors strategies as well as new "theoretical" strategies such as new business concepts and business models, and other core organisational capabilities.

The major limitation of this method is that whenever we are using it to judge whether strategies are robust under future scenarios, the evaluation of their performance is implicitly carried out in view of a set of organisational objectives in an arbitrary manner. For instance, if an organisation is considering more than one alternative strategy and needs to decide which one to keep and which ones to do away with, the evaluation can be approximate and therefore, misleading.

This limitation may lead us to use the

variation of this method discussed as follows.

Wind Tunnelling Variation

In this method, which you can think of as an evolution of the Wind Tunnelling method competing strategies are tested against each of your different futures scenarios against a set of specific organisational objectives inn order to determine the best strategy.

For instance, let's consider a simplified case where an organisation has two scenarios: Scenario 1 and 2; two objectives: Market Share and Customer Satisfaction; and three competing strategies: Differentiate, Expand, and Partner Up. In this example the organisation has to decide which strategy to pursue and which to eliminate.

This method then consists of 3 steps:

In the first step, for each objective we rank each of our strategies against the two scenarios we created from best to worst. This effectively compares, with scores, the performance of each strategy against each scenario.

For instance in our example the "Differentiate" and "Expand" strategies

might perform better in Scenario 2 rather than in Scenario 1, but the "Partner Up" strategy might perform better in Scenario 1.

In the second step, for each objective we rank all of the Strategy-Scenario combinations from best to worst. This effectively compares the performance of all of our strategies across all of our scenarios.

For instance, in our example for the "Market Share" objective "Expand" in Scenario 1 might have the best performance, then the "Partner Up" strategy in Scenario 2 might have the second best. And so on.

Finally, in the third step, for each strategy, we then look at the scores obtained in the previous steps for all of our objectives, and we can even sum them up, to determine which strategy has the greatest chance of succeeding.

By using this quantified method we now have a way to discuss and calculate which strategies are the best ones, and we now have information that we can use to adapt and inform our organisations official future strategies and visions.

A limitation of this method though is that it overlooks the qualitative elements of

strategy development, as well as the relative importance of each objective, and while you could arguably assign these qualitative factors numerical weightings ultimately you could end up in somewhat of a confusing tangle.

"FORESIGHT IS LESS ABOUT PREDICTING THE FUTURE & MORE ABOUT MINIMISING SURPRISE.

CONTINUOUS STRATEGY IMPROVEMENT.

S THE world, and the future, continues to change around you you'll know by know that even when you think you've reached the end of your program that that's just the beginning of the next program, and you have to start it all over again, that is if you want to remain as aligned as possible with the future as it unfurls. After all, as we witness in all of the world's most valuable and visionary companies not only is Strategic Foresight a continuous initiative but it is deeply embedded into their corporate cultures.

As such, when it comes to the continuous development and evolution of your strategy I recommend you follow these stages which, while they're based on a firm foundation of proper execution and governance, are crucial to ensuring you remain on track and achieve your goals.

The five stages are as follows:

1. STRATEGY DEVELOPMENT

Having run your program you should by this point have created and selected your future strategy, but as everyone knows the best strategy is one that is always evolving with future market conditions which, therefore, means that it is a dynamic strategy not one that is set in stone forever.

2. IMPLEMENT YOUR STRATEGY

Having created your final strategy it's imperative you implement it. You can do this by making sure that you create and fund the appropriate organisational initiatives.

3. MONITOR EVENTS

Once implemented make sure you have the appropriate processes and systems in place that let you monitor your organisations progress against your goals.

4. EVALUATE IMPACT

Next, it is imperative that you are able to evaluate and test the impact that

each of your initiatives is having against achieving your goals and correct and short falls.

5. MODIFY OBJECTIVES

Then, last but certainly not least, if you have run another strategic foresight program and have determined you need to alter your strategy and its goals then you must be able to do this as quickly and with as little friction as possible.



SCENARIO IMMERSION 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FITURE DESIGN STAGE



TEAM NAME AND NOTES:

SCENARIO NAME AND BRIEF DESCRIPTION

This is the name and a brief description of the futures scenario you are going to be exploring.

THREATS

List all the threats that this scenario presents to your business and the markets you care about.

OPPORTUNITIES

List all the opportunities that this scenario presents to your business and the markets you care about.



SCENARIO SUMMARISER 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FUTURE DESIGN STAGE



Use this sheet to help you explore the futures scenarios you created in more depth, baseline your thinking, and start thinking about what responses you could or should take to them all.

TEAM NAME AND NOTES:

	SCENARIO 1	2 SCENARIO 2	3 SCENARIO 3	SCENARIO 4
IMPACT OF SCENARIO What happens after the scenario occurs?				
UNCERTAINTIES What is unknown about the scenario?				
QUESTIONS What questions might you have about the scenario?				
COMMENTS What comments do you have about the scenario?				
RESPONSES What responses and actions should you take as the scenario occurs?				
ALTERNATIVE RESPONSES What other alternative responses are there if your scenario occurs?				



STRATEGY SUMMARISER



Use this sheet to help you figure out what capabilities you need to develop, and what actions you need to take in order to benefit from the trends you identified.

TEAM NAME AND NOTES:

DISCOVER

What are the opportunities and threats when our scenarios occur? How could these scenarios benefit or jeopardise our business in the future? MINDSTORM

What capabilities do we need to develop, drop, or enhance to profit from these?

CAPABILITY BUILDING

What concrete actions must we take to ensure we have these capabilities? How do our stakeholders understand these scenarios and trends? What are their expectations of us?

STRATEGY DEVELOPMENT

How do our scenarios support or challenge our strategic plans and thinking?



STRATEGY WIND TUNNEL 311 INSTITUTE: 311 TRENDS AND FORESIGHT CODEX: FUTURE DESIGN STAGE



Use this sheet to evaluate the impact of each of the futures scenarios you created on the strategy of your choosing and then use the output to help you create more robust and resilient future business strategies and visions.

TEAM NAME AND NOTES:

	SCENARIO 1	2 SCENARIO 2	SCENARIO 3	SCENARIO 4
STRATEGY 1				
STRATEGY 2				
STRATEGY 3				
STRATEGY 4				
STRATEGY 5				
STRATEGY 6				





PEOPLE SAY change is a constant, but in today's technology fuelled world this simple phrase is a deceiving, and often comforting, misnomer because change isn't constant, it's exponential, and the only boundaries to what we can achieve as individuals and as a global society are the ones that we invent for ourselves.

As researchers and scientists increasingly prove that nothing is impossible, that yesterdays science fiction is simply the future generations status quo, and as we all continue to bear witness to an increasingly rapid rate of change that's affecting and transforming every corner of global business, culture, and society the future belongs to all of us equally, and we should never loose sight of that.

As you race into your own future I wish you well, and never forget you have all the friends and support you need around you as we all voyage through time and space together on this fragile living spacecraft we call Earth.

Explore More

Matthew Griffin Founder, 311 Institute

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