

## **Reflections about Globalisation: Viewpoints after the Horasis Global Meeting**

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### **Abstract**

This paper will explore and reflect on the subtle changes in managerial attitudes evolving in all continents as the world faces a natural slow-down in economic growth as nations mature, within the context of the globalised world in which we now live. In passing we have to take into account the ramifications of the emergent IPv6/5G Internet and the Internet of Things (IoT). The overall conclusion is that globalisation is here to stay but will be modified by less greed and greater emphasis on sustainability.

Following the recent Horasis Global Meeting in Cascais, Portugal (May 2018) we highlight how some of these topics are on the cusp of being reappraised by global managers across the spectrum of their work. Horasis describes itself as 'the Global Visions Community' which attempts to enact visions for a sustainable future though offering guidance to corporate leaders based on sustainability, principled leadership and community building. Its meetings, with their panel and plenary discussions, are designed to inspire our future. All managers, no matter their global origin discussed how their business might change to be more egalitarian, equal, and transparent while also grappling with the realities of geo-politics, new FinTech offerings and encrypted block-chains. There were inputs from leading female managers in government and business guiding the discussion on inclusiveness and engaging with a whole raft of other issues that include sustainability, as well as migration

The paper concludes that.... globalisation is here to stay. It must be refined; its reach extended and be managed fairly.

## Introduction

Many discussants at the recent Horasis Global Meeting returned to talk about globalisation no matter what their discussion topic was. In many senses this was inevitable. Horasis gathers thought leaders and decision makers from around the world: they are from governments, the military, major multinational and other large firms as well as managers involved in all aspects of innovation, entrepreneurship and the complex variants of financial services. So, while they were due to discuss a range of topics of interest to CEOs at boardroom levels such as religion, Medicare, diversity or education much of the time these managers home-in to question - 'how this might affect my business?' or 'if [the topic is] globalised, how might it affect me?' Few can escape the minutiae of globalisation or its geo-politics. Thus, we have decided to focus next year on 'Catalysing the benefits of Globalisation' for the 2019 meeting.

The 2018 meeting with its theme of 'Inspiring our Future' had a wide spectrum of panels and plenary topics from FinTech to Sustainability and even noting how religion interacted in the board room and we noted few can live, work and exist in today's world independent of others. We are all a part of some supply chain, even subsistence farmers who might occasionally buy fertilizer for their fields. The meeting's business leaders, service suppliers and civic managers were all acutely aware of the intimate interconnectedness and discussed how to make the world a more sustainable place: a place for our children to grow up in, and to reach their potential.

We have noted over the last year that there is a high degree of volatility – the markets are unsettled. There are many mini- and proxy-wars taking place across the globe that do not seem to have any resolution. Some indices show how corruption is a deepening issue in many nations despite strong

government actions; and negativity is reflected in our decreasing trust in institutions. There is even a Populism Index that maps the growing surge in European elections to oust traditional government parties and replace these with parties apparently more representative of the people.

Currently every third European government comprises of, or depends on, an authoritarian populist party; and that populist parties on average attract approximately twenty percent of European voters. It is a worry to many thought leaders that the populist vote, though somewhat understood as 'people wish to see progress', inevitably promotes charismatic individuals to positions of international power although they have little demonstrable ability to govern – except that derived from their own charisma and their appeal to their audiences in a complex world is by stating convincingly 'I have a simple solution'. Often such leaders, aligned to the far right or the far left of the centrist parties, carry an uncritical population into an election which they win or become a dominant minority, but without any deep extant policy or any understanding of international politics. Presently, Italy is a country to watch – having already founded a populist government. It is likely to hold new elections in the Autumn of 2018 with all populist parties clamouring for recognition. This increases businesses' insecurity due to its fear of diminished future financing which makes managers hesitate to commit capital expenditure on new machinery and the training of operators. Sales falter which stimulates huge financial volatility across Europe.

During the 2018 meeting, several topics resurfaced, among them the need for better education policies with global reach that allow everyone to reach their potential. We accepted the idealistic view, that given full, open, and good education for everyone we

will find some people are rated as brilliant, the mass as 'average', and some poor people deemed uneducable. Following on, the brilliant will be able to multi-task, gaining commensurate compensation packages, the average will receive average compensation, and the poor will be supported. Thus, inequality will be built-in. But we would hope average compensation is not actively depressed by the richer segments of society so increasing the pay gap and perceived inequality. Reality indicates that gap is increasing, fomenting populism.

Stemming from this we need all employers to consider how to adjust their practices – not only concerning gender but also to offer true equality of pay for equal jobs, and to offer to employ all applicants no matter their official level of educational achievement. . This will be difficult as 65% of the current elementary school students will work in professions that don't yet exist so there is no way to define curricula to match future needs. Many suggest we ought to change the curricula. To include a core of critical thinking which will permit individuals to filter the fake and false news of today, and to better visualise their own futures. . We must invest in life-long learning – and generate ways to do this in nations where primary education is lacking, especially for girls. This has been directly addressed by Nobel Peace Prize winner Malala Yousafzai, who having once been shot by the Taliban in Pakistan and air-lifted to be hospitalised in the UK, is now a UN advocate for female rights, especially concerning the education of young girls living on the margins of society.

No matter where in the world, entrepreneurs, innovators and small businesses thrive in both rural and urban environments, but increasingly it is the urban cluster that nurtures the innovators. The UN notes that over half the global population now lives in cities, and the mega-city is rapidly becoming the norm, especially in Asia. Delegates

frequently discussed the engorgement of cities, the developments of the mega-city, and the opportunities presented by the growth of new 'smart city'. We enlarge on their discussions below.

We noted the CEO's vision should result in targeted capital expenditure that provides the best environment for all staff to focus on the provision of quality goods on time for clients across the globe. Clearly the CEOs must be familiar with competing global products and practices that might be of benefit to their firm. And to understand that comparative advantage might demand hard decisions – like using off-shoring to make more of their products or services. Presently, in our tightly globalised world there are many unintended consequences, and all have their natural business cycles that require nurture but often cause disruption. One of the 'unintended consequences' is the backlash against globalisation used by CEOs who decide to use a third party to carry out remotely what his enterprise used to do - be that manufacturing or services. Over the years we have accepted that developing nations have accepted work once done in the developed nations and have thus become expert in 'back office' processing – as seen in India with its huge off-shore work in publishing, accounting and basic legal practices. Or in China with its large capacity to assemble a myriad of products we all use – like smartphones, notably the iPhone. The final impression is that globalisation is here to stay – but must be managed fairly.

Much discussion has been focused upon Intellectual Property Rights and the stealing of knowledge. Yet knowledge exchange is the premise upon which science is built – free exchange in academic papers, in conferences, or over a drink with colleagues: chance encounters can spark new searches, promoting new discoveries. That freedom is at the forefront of science, but at the level of its practical application we need national and

global stability to assure managers that the short-term disruption (while new services are implemented) will lead to future benefits. However, worryingly, it was also noted that science depends on repeatability and verification. How then do we reclaim an alternative set of Big Data to undertake independent analyses to verify results, and to do so in other parts of the globe if the analyses purport to represent a globalised application?

## **Broadening the discussion**

### *The development of globalisation*

'Globalisation' is an over-arching and over-used word carrying little precision – yet it provides a very useful verbal summary of all aspects of getting goods or services to the consumer.

Early cross-border trade has been noted in East Mediterranean trades of obsidian into the Levant. Even earlier trade may be corroborated by Celtic artefacts found across the northern Steppes from the Atlantic to the Pacific coast. Yet the real beginnings of globalisation were the trades in tin, silver and gold from the north eastern regions of Europe and the UK in Roman times into the Arabian Gulf. It was trade unimpeded by border crossings in the stable world of the Roman Empire. It linked to Arabian short-sea inshore traders plying the ports of east Africa, India and China. At the same time the Silk Road opened up pan-continental land routes from China to/from the Roman Empire through Central Asia trading exotic materials like purple silk commanded by Roman nobility, or Scandinavian amber for the Chinese jewellery markets. Greater globalisation intensity was attained after the mid-1500s by European traders as they pioneered oceanic navigation, finding north and South America, the African coast and

new lands beyond its southern Cape reaching on to India and to China.

Pre-modern globalisation was founded by the Industrial Revolution that called for integrated supply and distribution chains across a region, nationally, and even cross-border that was based on increasing standardisation of parts. No matter where it was made a nut would fit a bolt, and a ploughshare would mate with a shaft. However, truly modern globalisation only occurred after World War Two when containerisation was invented, and supply chains became more secure with global reach.

But what is 'globalisation'? As mentioned earlier, it is an aggregation of all the aspects of supply chains linking mineral extraction to refiners, then to fabricators of sub-assemblies, assemblers, and goods finally move onwards to the end consumers. At each stage there are brokers and traders ensuring products are bought and sold priced to market. That is one line of complexity. Other aspects refer to the Laws and Regulations pertaining to quality, verification of ownership, insurance, and so on. And there is the further complexity of the banking and finance industry, often nowadays in this digital age referred to as FinTech, that greases the wheels of trade at each stage and guarantees payments. 'Globalisation' is in effect the total concept: the cycle from consumer demand upon raw materials extraction to the delivery of finished goods to the consumer. This is too much to describe frequently – so 'globalisation' has become the word of the day, no matter if it describes physical goods or services.

'Populism' is a concept-word that has also expanded recently to embrace the unrest perceived by individuals that has become channelled into voter preferences. As we mentioned, twenty percent of European

voters incline towards electing a leader, guided by his or her charisma espousing populism. That is, to stand up for the ordinary citizen 'downtrodden by the richer sections of society' in a battle of the 'haves vs have-nots'. It does not seem to matter if the putative leader is a member of the establishment, it is the words voiced in favour of the alleged downtrodden that matter - dragging them to the voting booths to vent their wrath on those in power, come what may. Once elected into power the leader must find a group of people to fill ministerial posts and senior administrative functions. It is not imaginable that incumbents would be invited to serve, as they represent the 'old guard' who must be discarded in favour of a bright new future. Even 'neutral' national Presidents might be impeached by an unruly populace.

It is unwise to appoint individuals simply as an academic exercise, following the systemic guidance offered by Ross Ashby's Requisite Variety thesis, or Stafford Beer's Viable Systems Model. It is necessary to judge the individuals' personal competence as well as their academic qualifications, together with their social networks that could aid the quests of the new government. Failure so to do would risk a back-lash from the populace fearing a cop-out, or a retreat from reaching towards the future. Such discussions will occupy the 2019 Business meeting as delegates consider how to 'Crystallise the Benefits of Globalisation'. They will look to the frayed European ideals as well as the emergent Asian nations - and all the while having to accept the populism pervading the voting base of the US. Its populace elected Donald Trump and might re-elect him for a second term: business leaders must consider their options. In the 2019 meeting they will synthesise the deconstructed current globalisation into a new-globalisation that few of us can yet imagine in terms of form or function but which will address diversity and

equality to close the gap between the 'haves and have nots'.

Let me introduce a new neologism I&E (to encapsulate the innovation and entrepreneur sector). It comprises those workers whose thoughts lead to new inventions that might be developed later in 'garages' by entrepreneurs. They will hope to attract funding from 'angel' investors or venture capitalists with necessary oversight by the Health & Safety Executive as well as Regulators of many types. Later operations managers who will eventually have to make the goods or embed the software in the goods will offer their design input. And so the objects become those we will crave and then jettison in favour of the next new fashionable 'must have'.

I&E discussions always raises many aspects as people from round the globe understand many of its ramifications, its business opportunities, and its potential speed of disruption. They also understand it is culture bound. Sometimes prevailing local education maintains the old way of 'copying and rote learning' rather than espousing 'critical thinking'; or it is a FinTech that forbids loans for profit making, with laws that might lead to long terms of imprisonment for bankruptcy. Not all nations are the same. And now, joining the list of xxxTech acronyms is RegTech - wherein the relevant authorities attempt to meld laws that have arisen in different nations (or regions like the EU) into a set appropriate to aid, control and police multi-national enterprises operating globally and that are often supported by 'cloud' data-sets under no national jurisdiction. That RegTech has begun late is simply a reflection of the speed of internet service growth and its new specialisations that are not linear developments of traditional sectors - like AgriTech or MediTech - which apply IT to improve services in the relevant fields.

In the land-fills we lose many precious elements like gold (relatively globally abundant) or 'rare earth' elements. According to Friends of the Earth and the Minerals Education Coalition at least 70 of the 83 stable and non-radioactive elements in the periodic table can be found in smartphones. Something like a total of 62 different types of metals go into a handset, with rare earth metals (a specific set of elements in the periodic table) playing an important role. For instance, neodymium, terbium and dysprosium help the phone vibrate; and both terbium and dysprosium are used in tiny quantities in touchscreens to produce their vibrant colours. These elements are not necessarily 'rare' but are often found highly dispersed – they are difficult to extract and energy-intensive to refine. Trashing in land-fill is not at all sustainable.

Finally, I will mention fossil fuels as the Business Meetings often discuss the greening movement and the need to derive as much of our electrical energy as possible from renewable and thus sustainable sources. The traditional uses of fossil fuels continue – with coal predominantly used to generate electricity, oil to fuel transport and gas for space heating. Each fuel is to some extent exchangeable for another and all yield complex hydrocarbons used as feed stocks for diverse end-products from drugs, plastics, fertilizers and pesticides. The fossil fuels are a finite resource that need to be conserved, not simply burned. It is quite odd to note that the International Energy Agency based in Paris that produces annual reports on the demands and uses of fuels once discussed the concept of 'peak oil'. Now that is forgotten due to the potential glut of fuel derived from shale oil/gas deposits, mainly due their low well-head cost in the US. Shales have disrupted markets, but so have technological advances in the motors that reduce the demand for fossil fuels. Even so,

the IEA maintains their forecasts of supply and demand by using a fudging factor noted as 'new technology or sources' to fill the gaps. Thus 'peak oil' is still an important concept to bear in mind as we move to an all-electric world that does not possess, just now, sufficient storage mechanisms for electricity; nor does it have the long distance cabling in place to offer an efficient market for electrical energy.

### **The future: business opportunities**

#### *The development of the 'smart city'*

The migration of rural people to urban life has continued apace – and now is a rapid stream in Asia, especially in China which has planned for this change over the last two decades. The media noted with some derision that China had created many new cities across its lands, always in the interior, that were devoid of people. They asked "why?"

The Chinese authorities had read of these changes in Europe and the US noting those nations had a far lower population than China. Their migrations took place mainly after World War II when the agricultural worker population fell rapidly and urban industrialisation absorbed the migrants from the land. It was still a time of muscle power – today robots provide the muscles, and the historically ill-controlled rural to urban migration and subsequent manual jobs provision would not cope. Earlier Horasis Meetings learned of China's need to provide for 400 million rural migrants into cities within the next decade or so: we find China is managing this task well, and the 'empty' cities are filling with households. Thus, discussions are held about the concept of 'smart' cities – how to provide the services and how to convert older mega cities into a new smart phase. These discussions seem far from globalisation but are in fact well within

the emerging concepts of new-globalisation as noted below.

We will discuss the new Chinese city as a prototypical global model. A high density of housing is to be provided, with adequate living space, good sanitations and within each unit are several bed rooms to allow for the gender separation of children. The high-rise blocks have to be provided with more than adequate provision of incoming clean water, electricity for heating, lighting and powering many appliances (to obviate the need for burning fossil fuels, reducing the 'carbon footprint'), fixed 'phone lines, as well as WiFi for entertainment and communications. Good waste water evacuation is to be provided for grey water (that might go to green space and park irrigation) as well as sewage disposal directed to centralised bio-hazard treatment plants which eventually yield fertilizer material.

These tower blocks will be provided with easy access walk-ways to the modern equivalent of corner shops or mini-markets, to leisure areas permitting communities to converse, and to pre-school centres, doctors, and so on. Slightly further way would be access to secondary-age schools and to mass transit systems to quickly and safely move people to the town centre and its amenities or the bureaucratic offices, train and bus stations and airports; and to the major hospitals and to various work places - with the dirtier factories placed some distance away. It has been noted the new Chinese cities are not placed haphazardly but at nodes along their national high-speed rail systems, new auto-highways and new airports. In fact, for the latter a new globalised mode has arisen for their clean smart factories producing high value-added goods demanding onwards air-freight in their assembly chain.

The emergent smart city is a micro-globalisation in itself as elements depend on each other: and it is recognised by discussants that the city is also an integral part of a larger globalised system worthy of being included in the new-globalisation concepts. In the 2018 Business meeting, delegates explored how the world-wide cooperation of the development of smart cities might also help us grasp and modify our ability to crystallise the benefits of globalisation and to move to a more comprehensively integrated globalisation.

#### *IoT and the need for 5G*

The Internet, a collection of cables having routers at nodes to amplify and to switch traffic to new destinations, has been described by service providers as 'nearly full'. A recent position paper by Cisco describes various measures of the net in "The Zettabyte Era: Trends and analyses" notably growing to an annual IP traffic of 3.30 ZB by 2021 – a threefold increase over the next three years. With smartphone traffic expected to exceed PC traffic by 2021; with wireless and mobile traffic accounting for more than 63 percent of all traffic; with an expectation of there being 27 billion connected devices by 2021. Globally IP video traffic will account for 82 percent of all traffic. The total traffic increase has grown rapidly over the years – in 1992 there was a 100 GB/day, in 2021 the Cisco forecast is 105,000 GB/second.

Some of the increase in traffic is caused by technical developments. Cisco notes "...the effect of video devices on the internet traffic is more pronounced because of the introduction of Ultra-High-Definition (UHD), or 4K, video streaming. This technology has such an effect because the bit rate for 4K video at about 18 Mbps is more than double the High-Definition (HD) video bit rate, and nine times more than the Standard-Definition (SD) video bit rate." Cisco estimates that by 2021 that 56 percent of the

installed flat-panel TV sets will be UHD, up from 15 percent in 2016. Thus there is ample opportunity in the WebTech business to develop new hardware that permits new routers to integrate data and video streaming within an integrated chip device that will boost streaming capacity while using less power thus yielding much greater efficiency. Importantly, for Cloud providers like Google, Amazon, Netflix and the military, their subsequent reduction in electrical power will offer a substantially smaller carbon footprint.

The discussants suggest the net's standardised development issues are global and question who might support its heavy cost. Perhaps, it is suggested, governments might build the central infrastructures, and the service providers, ie the market-place innovators could develop the apps for our use; and for us to pay for. Business opportunities abound globally, but only if the Net is redeveloped to offer more speed, greater peak capacity and importantly, new IP address space.

The latter point is slightly technical as it is a consequence of technological development. Presently the net uses IPv4 with a fixed maximum of unique identifiers which we know as domain addresses. The impending release of the Internet of Things (IoT) demands an identifier for every person, important animal and most inanimate objects – a vast increase in demand for address space that can only be offered by moving to IPv6. There will be little to worry business leaders as their technical support staffs will handle any needed change, but all businesses will be able to offer new digital approaches to their interactions – in government, civic and social services, and in all aspects of globalisation. Yes, jokes have been made of fridges talking to other fridges via their embedded software but their owners will be more fully in charge of their remote home management (including the

fridge re-ordering its stock); cows will communicate with the farm equipment allowing the farmer to aggregate data on milk yields, nurture and so on to offer full digitally supported animal husbandry; and vehicles will communicate with each other notifying on-coming traffic of accidents which might be scanned for damage to the humans involved and with the emergency services called automatically to the precise location. The opportunities are endless, and they will incorporate Big Data analyses as well as artificial intelligence (AI) learning.

At each stage of our technological development since our cave-dwelling stages I suspect we will have felt overwhelmed by progress, resenting its disruption. It is no different presently, and delegates note as human decision makers, we remain to an extent irrational. Yes, they have opined, AI might offer aid, but in the end AI is only software applied to help us. And while AI may appear to take decisions it is the business, civic or government leaders who acquiesce (in one phase) or actually take positive decisions (in the alternative phase). We are still in charge. However as complexity increases and it has great potential to confuse.

*New developments in geo-politics: the likelihood of G6+1?*

Let me offer a fantasy that arose in the last meeting's side-lines following a discussion on NewTech and 5G and somewhat before the recent G7 Heads of States meeting in Canada at which President Macron (of France) has said that the G6 nations (ie excluding the US) have an aggregate GDP equalling that of the US. And if President Trump continues to rant, the other State's heads might place his nation to one side (ie the US to be the +1) without full access to the meeting.



The G7 is structured as an annual summit bringing together Canada, the US, the UK, France, Italy, Japan and Germany, which represent more than 60% of global net worth between them. Economics tops the agenda, although the meetings now always branch off to cover major global issues – such as the current trade disputes.

US Presidential Tweets during March 2018 pre-announced trade sanctions against imported steel and aluminium into the US; and more recently an import ban on automotive parts. All have been under the guise “...of National Security concerns”. Observers can find ‘no security issue’ when considering a bar of steel, but concur automotive parts may be of concern because of their software content as that may carry embedded malware. Delegates were quite cognisant of the international differences of opinion about Chinese hardware provided by ZTE or Huawei. They noted that Alexa, a communications device from Amazon, is accused of listening to human conversations and forwarding these to random third-parties on the Web. Spying is a huge discussion subject - be it accidental or commissioned.

This concern will bubble into the future, into the Internet of Things (IoT) wherein the development to provide IPv6, the so-called 5G network, that will allow all people of the world, animals and all inanimate objects to be given a unique identifier and to carry embedded communications software. But what if the US President Tweets, then bans, all the embedded software due to ‘National Security concerns’?

Such Tweets and the follow-on actions increase business leader’s uncertainty be they in the service industries, manufacturers, distributors or xxxTech firms pursuing globalisation schemes. Their uncertainty will delay the implementation of 5G, lower GDP growth, and ultimately might harm our

global future. It is conceivable that the US might be frozen out of 5G development leaving the rest of the globe to pursue its standardisation and to learn how to use it.

Robert Kaplan, Dallas Federal Reserve President, has stated he is worried the US has not yet addressed policy issues on its demographics. Its population is ageing and needs restructuring by a mix of (probably) controlled immigration, and (certainly) by technological applications. He states further the US is far too low in the OECD Index of Education Achievement which does not bode well for enhancing the I&E sector specifically, and thus the US economy generally in the longer term. Finally he worries that US oil/gas from shales will not be able to keep the global oil price stable: it will become more expensive, threatening growth everywhere.

If US business leaders and innovators fear continuing instability and uncertainty I wonder if they may ‘vote with their feet’ and leave the US. It seems an outrageous idea – to imagine Silicon Valley, the Boston Triangle and other regions becoming bereft of innovators; and the super-giant businesses like Amazon, Google etc who are dependent on the continued development of the Net and its opportunities who might simply re-locate their headquarters away from the US into Europe, India or China. Those are regions that have in the past provided many of the young post-doc researchers in the US, who have been somewhat hindered in recent years as immigration controls have limited their visa provision. Many factors contribute to business uncertainty and to the location of HQs. We know the Web is neural and available globally – management and its HQ location may flow just as easily as data.

Delegates in the 2018 Global meeting knew this discussion was a fantasy. But attitudes are hardening as President Macron has noted. The fantasy is fast becoming a

potential reality and we know massive global shifts do occur. Businesses always look for the best opportunities and globalisation knows no boundaries.

### **The 2019 Business Meeting**

Post-Modernism is deemed *passé* in literature and the plastic arts, but I think the time is ripe for that concept to be applied to today's globalisation. A new form and structure for globalisation is needed, and it will thrive on 5G, the IoT with the aid of AI.

It is in this sense that we will approach the 2019 theme 'Catalysing the Benefits of Globalisation'. In effect, the meeting will explore the Deconstruction and the Synthesising of an emergent form of Globalisation.

#### *The far future*

Research into innovation notes its gestation time into a successfully marketed product might take from 25 to 40 years. The OECD noted in 2007 that many OECD countries have seen little improvement in productivity performance in recent years with multi-factor productivity (MFP) declining over the past decade in many countries, including the larger continental European economies. The Brookings Institute in 2011 noted that without purposeful policies and necessary investments to spur innovation, the United States may not experience the same sort of economic and technological advances in the current century that it enjoyed in the past.

In general terms, economic growth since 1970 has been both outstanding yet too often mediocre. The advances have mostly come in a narrow sphere of human activity involving entertainment, communication and information; but in other aspects there was less progress after 1970. For example, today's cars are much more similar to those

of 1950 than the 1950 models were to the horse and buggy of 1900. Or the appliances in today's kitchens are like the 1950s, whereas the kitchen of 1900 had no electric appliances at all.

Two related examples might illustrate the delay in capitalising innovation. First the photovoltaic effect was first noted by French scientist Edmond Becquerel in 1839; and thin-film PV, a second generation, more flexible invention was seen first in the 1970s, but is only expected to capture about 7 percent of the market by the 2020s. All this, while businesses strive to be more 'green' and use sustainable energy-saving processes and products.

Thus, we should exercise caution when reading the media exclaim "... a breakthrough invention that will disrupt markets". Nevertheless, we also understand that globalisation of materials supplies as well as thoughts can rapidly advance fundamental ideas generation. And applications breakthroughs in the forms of new process models using existing objects (like cars or motor bikes) to offer ride-hailing services (like Uber, Lyft or Taxify) can rapidly escalate into fat verticals creating huge valuations in market capitalisations (eg Go-Jek becoming in only two years Indonesia's first unicorn business by 2018.)

What will succeed is a question that continues to vex the thought leaders in the Horasis Global Meetings. They have noted 3M's accidental invention of the Post-it note and their subsequent comments that most of the future 3M products we will use in a few years' time are not yet invented. We noted above that today's children will be working upon or within systems of which 65% have not yet been invented, so they must be educated to be flexible and be able to utilise 'critical thinking', and to accept that 'lifelong learning' is the future norm.

## Conclusion

The Horasis meetings always provide strong discussions across many topics and the Global Meeting is no exception. With its greater attendance it has more parallelism – of discussions and plenaries – but still with the same fervour.

The Global Meeting begins with a review of events across the world, and in the host nation of Portugal during the last twelve months so crafting scene setting: discussing the world's geo-political frameworks, noting how 'open society' is being changed by populism, how climate change politics might detract from the issue and how the Internet and AI are changing our perceptions of the possible. Thereafter follow discussions on, for instance, the '–isms' that confront us daily 'terrorism, fundamentalism, communism, populism, entrepreneurism' – what are their driving concepts, how do they disrupt our lives and how to redirect their forces to be of benefit for everyone? To some extent the topics in a session may seem to repeat discussions that have already taken place, but the emphasis is different as new discussants take the floor, bringing an ever-richer set of concepts to our notice, stimulating further thought.

In general terms the 2018 Global meeting noted a few points which returned often in discussions even to those that did not have those topics in focus – so the effects of better education supported economic growth in every nation, but more so in the developing nations. In those countries we noted that qualified teachers often, like doctors, opticians or dentists did not wish to practice in the deep countryside as they accepted they might not find a partner to marry – instead, they preferred to practice in towns. That choice is well known across Europe and the US where health officials bemoan the lack of countryside support as vehemently as rural residents. The outcome, recognised in

all panels, was that the lack of education defeated the economic growth of rural families. They did not understand how to create better conditions for themselves – growing more, visiting the markets more frequently and there perhaps being able to buy a bike, possibly with a trailer to carry more to the market. The market town might also support micro-financiers, so the emergent slightly richer farmer could get a loan, buy a bike for his children, and on the renovated rural tracks created by government edict children could more easily attend school. In these ways several discussion panels converged upon better solutions for complex situations, all initiated from micro-developments. The alternative is well documented – little cash, poor schooling, poor food all lead into a downwards spiral that families and communities may not recover.

Thus, infrastructure in all its ramifications can be seen to benefit rural life, but also in new mega towns – just as the one-time 'empty towns of inland China' can be seen to offer support to rural families who are migrating, and to offer support to the professional people who previously resisted being lost in the morass of deeply rural life. These well-designed new towns of China can be seen to be ideals upon which many nations might adhere. But such development depends on governments' policy making. Not only with respect to foreign policy, inwards investment or the development of high-tech hubs but also upon the almost micro-management of migrant flux as the subsistence farmers move to cities in search of more remunerative work. Just as changes in the countryside depend upon individuals lifting their levels of trust in the institutions and in local merchants and the fair application of laws that will develop the future so does the development of towns depend on all sides supporting each other – the providers of work and the providers of infrastructures. When there are good

accords the new and probably 'smart' city will develop – slowly at first, but then will achieve vibrancy from its own pulse.

It has been noted that the most active developments are indeed in Asia and possibly in Africa. Europe and the US are developed already and thus their economic growth is slower than in the developing nations. Europe and the US have a high income per capita and can afford a certain volume of 'blue sky' research that may not yield results. Developing nations need applications that have been tried elsewhere but which are acceptable locally (ie not imposed by an external group). Thus 'culture' is noted in the Horasis meetings as having multiple facets – one is simply as an enriching aspect, but it is a factor that must be perceived and nurtured when asking people of a local region to trust in agencies who purport to advance aid. We have discussed 'trust' in many sessions as a failing concept in developed and developing regions – stating in panels and in plenaries that trust must be better nurtured. Although it is quite acceptable to be a little suspicious of novelty as that increases the questioning and raises critical thinking of the benefits of a new development.

Once as an aside, we had noted that populism was too accepting of the rejection of status quo and the offering of uncertain new benefits by untrusted agencies. Charismatic leaders drag the populace into new voids bereft of benefits. Instead new leadership should present well-argued theses for change and to be able to support rural as well as new township governing with clear aims that are designed to achieve a better future.

Thus the Horasis discussions can embrace apparently different geo-political regions like the Middle East, Central Asia, South America or Russia with equal fervour noting their local problems and solutions are applicable

elsewhere given good-will to support change. We have noted how the Chinese initiative, once called the New Silk Road but now simply called the Belt and Road as well as India's internal infrastructure development are aimed at increasing end-to-end ease of transport, to increase the volume of minerals, part-finished good and consumer products all of which are supported at each stage by an educated work-force as well as every aspect of FinTech. This is also evident in the Japan/India/East Africa trade axis, or the Gulf States being linked by 2,000 km railway from Kuwait to Oman. All these networks demand trust to permit finance to place the infrastructure and then, once in place, users will develop all the services and lift local economies.

Through the many discussions during the Horasis Global meetings (the 3<sup>rd</sup> was in 2018) we have seen, time and again that many factors tie into the concepts of globalisation. Without good education subsistence farmers in developing nations would not gain the small payments they can garner today. With better education their children will be able to join in discussions about better crop management, banking and other aspects of bettering their lives. And, with their betterment the nation's economic processes also benefit – as do the global supply chains for food, fertilizers and other commodities. And finally, with better globalisation the world's economy will prosper.

But it is clear from the agitation of populists, of the gender equality agitators and all who seek to remove inequality and increase diversity that a new form of globalisation must evolve. What exactly that might be is the focus of the 2019 Global meeting "Catalysing the benefits of Globalisation". The panellists will be the ones who can derive the first inklings of the synthesised new-globalisation having deconstructed the current form that has passed its 'use by' date. Will we be able to discern how to rebuild

globalisation and also overcome the Trump effect? We must attempt to include the US in the new globalisation otherwise we might fall into the trap of the 1930s and allow the US to become isolationist and the rest of the nations to biker in a generalised trade war that benefits no one.

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