The future of talent in Singapore 2030
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Research report

Contents

Forewords 2
Introduction 4
1 What is ‘talent’? 6
2 The drivers shaping the context of talent 13
3 Scenarios 19
4 Implications 31
Conclusion 39
Appendices 42
References 47

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The CIPD is proud to be in Singapore working collaboratively to support the growth of the HR profession, and to help develop business leaders who are strategic, critical thinkers able to navigate the complex and ever uncertain world of work. We are delighted to partner with HCLI, and in particular on this important research report exploring the future of talent and human capital management.

The report explores the future skills and talent needs, and the management and development practices, in Singapore in to 2030, by systematically testing possible future scenarios arising from the current approaches to human capital management. They allow the comparison of our current assumptions about what works in talent management and development set against the context of the future. By revealing biases and potential blindspots when we make decisions, the research hopes to stimulate individuals, organisations, the state and society to reflect on their current paradigms, the quality of strategic choices, and their preparedness for what the future might hold.

This report is for thinkers, decision-makers, the next generation of leaders, and all those who feel it is their responsibility to build a better future, not just for themselves, but for others, and ultimately for society as a whole. While the purpose of this research was to describe the future of talent in Singapore, it also reminds us how our choices today are inextricably connected to the wider changing world. In our interconnected, inter-dependent economies and societies, most decisions will have longer-term, sometimes unanticipated, consequences for our communities, the environment, and the generations to come. Too many see profit or short-term advantage as the prize, but we now have to be able to take the longer-term view, to build sustainable and responsible businesses, and to help build for a better future.

The findings crucially provide a space to learn and reflect on what could be, rather than restating solutions that were effective in the past. I hope its insights illuminate and provoke fresh conversations about the future of talent and the future of Singapore more broadly.

Peter Cheese, Chief Executive, CIPD
Foreword from HCLI

During the World Economic Forum (WEF) at Davos at the start of this year, much was discussed and debated about the Fourth Industrial Revolution. It was said that developments in artificial intelligence, robotics, nanotechnology, 3D printing, genetics and biotechnology are converging towards a new world. Concurrent to this technological revolution are a set of broader socioeconomic, geopolitical and demographic developments. A statistic now commonly quoted: 7.1 million jobs – mainly Office and administrative roles – will be lost between 2015 and 2020. In contrast, only 2 million jobs – in computer, mathematical, architecture and engineering related fields – will be created in the same time period. To stir thinking around one extreme, the WEF even featured a panel with the discussion topic, ‘A World without Work?’

Such a future may be appealing to one but appalling to another. With Singapore having celebrated SG50 last year, it is perhaps timely to pause and consider the different scenarios that just could be in store for us in the years ahead. As a country, society, organisation or individual, how can we respond?

The Human Capital Leadership Institute (HCLI) sees itself as an aggregator in Asia’s human capital ecosystem, offering insights on understanding the world and Asia and what this means for business and human capital strategies for the region. Based in Singapore, it made perfect sense for us to begin our ruminations of the future with our home base.

This research suggests four thought-provoking scenarios that could happen. Personally, what stood out for me is that across these scenarios, we need to constantly cultivate our learning agility, adaptability and resilience. Such traits will stand us in good stead even as jobs will be made obsolete. To add to that, we must continue to be open and inclusive. In a worst-case scenario of the future, we may be gripped by fear and become more ‘tribal’, putting up walls – even a fortress – against outsiders. What we have to recognise is that this will only stifle our ability to innovate and, ultimately, be the creators of the future.

Together with our partner the CIPD and on behalf of HCLI, I wish you an enjoyable read. We hope this report stirs your thinking and positions you well as you chart your course of action for the years ahead.

Wong Su-Yen, Chief Executive Officer, HCLI
Singapore has enjoyed a period of impressive economic development. The success of its economic and strategic policies is reflected in the consistent gross domestic product (GDP) growth over the past few decades, the low unemployment rate and many other positive indicators (Ministry of Manpower (MOM) 2016a).

Looking to the future, Singapore’s sustained success increasingly depends on how well all players – the state, organisations and individuals themselves – are able to grow the human capital engaged in value-creation within the economy. As a small city-state, Singapore has already built capability to attract and deploy talent, but it also has the opportunity to reflect on its identities, its values and the kind of nation it wishes to be, and to ‘cultivate’ the breadth, depth and quality of its people to shape that future.

The use of futures methodologies to shape the future of nations is not new. South Africa, in navigating the transition from apartheid to democracy, used scenario planning, a technique famously devised by Royal Dutch Shell to start a national conversation around the Mont Fleur scenarios: ‘Ostrich’ – a white minority government that refused to talk to the opposition and lived in denial; ‘Lame Duck’ – where all parties arrive at a negotiated settlement that left the new democratic government castrated; ‘Icarus’ – an unconstrained democratic government that succumbed to the temptation of fiscal recklessness, leading to the economy crashing; and ‘Flight of the Flamingos’ – where society comes together to painfully and painstakingly develop society and the economy (see Kahane 2012).

There scenario planning met with strategic planning, drawing on the lessons of the past, the narratives of the present and the possibilities of alternative futures. The participants were asked to consider what could happen, not what will or should, which opened up new conversations. More significantly, these were conversations that led to scenarios that sought to transform the situation, not just describe it. We hope, like the iconic Mont Fleur scenarios, ours will prompt readers to do just that.

Lao Tzu’s wise exhortation to reflect deeply on our first step was reflected in the Mont Fleur project. In seeking to use the scenarios to shape the course of the future, all the participants realised that they had to start with transforming their thoughts, slaughtering sacred cows, having long-held mind-sets challenged, examining the prejudice and small-mindedness in relationships with others (for example the idea of the white politicians working with black opposition leaders). All of this is necessary before the first step, otherwise the next thousand miles may be regretted.

The next question is, why another study on talent? There are numerous reports on talent providing country rankings, ideas on future skills, sources of talent, talent management, developing potential, locating talent, innovation systems and so on. All of these are predicated on an assumption that talent is a term with a common (if broad) meaning. As ‘talent’ is an important concern in Singapore, we wanted to start by asking a more fundamental question: what do we understand by the term ‘talent’ and how do you know that someone is talented? It was important we didn’t start our journey with assumptions about the understanding of ‘talent’ in Singapore.

We drew on our panel of Singaporean and Singapore-based experts, who generously shared their views. Using the Delphi technique (see Appendix 1), we hosted an iterative conversation among the experts, testing, challenging and ultimately distilling what’s understood as ‘talent’ in Singapore (shamelessly using the opinion of the 30 Delphi experts from business and academia as a proxy for the intelligentsia). We present the results of those conversations in section 1.

The more orthodox use of the Delphi technique is the second set of questions on what the experts thought would shape the nature and understanding of talent in the period to 2030. In the iterative conversations, our experts highlighted a range of such drivers, including unpredictable events (‘wild cards’), as well as the planned interventions of policy-makers and organisations, to attract, deploy and develop talent.
In section 2, we synthesise and report on these trends and drivers. We also discuss the links with the understanding of ‘talent’ reported in section 1.

Next we used the drivers and trends to explore alternative futures. First, we ran a scenario-building exercise with senior HR professionals in Singapore in December 2015. Then we assembled the drivers and trends into one base-line and three distinct synthesised futures for Singapore: Steady as she goes; No one is an island; Fortress Singapore; and Bless thy neighbour. These are synthetic scenarios and do not follow the classic 2x2 scenario planning approach famously developed by Royal Dutch Shell. What is similar is the discipline of internal consistency within each scenario. In these scenarios, we apply the paradigm underpinning the understanding of talent in Singapore 2015. Those frames of reference – revealed in the manner talent is constructed – offer a range of responses to the issues raised in each scenario.

In section 4, we re-examine those implications and explore the choices one makes in reaction to the various situations. Being a report about talent, we wanted to see if there is a way of reflecting on the quality of response. Is there a means of contrasting a response that adapts to the situation and another that reframes the situation so the issue is perceived differently? It’s trying to see if there is a way of examining one’s choices, as Lao Tzu may have suggested, in seeking stillness and self-examination before that first small step.

We introduce a maturity framework onto which the list of implications from each of the scenarios is revisited to see if there are other ways of responding to the situation. It looks at the choices the state, society, organisations and individuals could make, rather than should or would make. You not only look at alternative futures, but alternative responses to those futures. It’s a scaffold to remind you that everyone – a child, a seasoned professional, a parent or a citizen – has choices; whether you see these as valid or not.

In closing, we return to reflect on the journey so far and to pose some further questions. This report isn’t a manual or a list of to-dos in response to a set of ‘what ifs’. This report is an invitation to reflect on the assumptions we make about talent, to stretch our worldview by reflecting on a series of scenarios where our reactions to the situation may say more about us than any assessment for the talented. It’s an invitation to stop, be still and listen to oneself before making the first step into the future.

Dr Wilson Wong, Head of Insight and Futures, CIPD
March 2016

‘If you don’t know where you want to go, then it doesn’t matter which path you take.’
Lewis Carroll, Alice in Wonderland
1 What is ‘talent’?

In the Delphi exercise, the experts explored the term ‘talent’ – how it’s used and understood, and what they would regard as signals or indicators of ‘talent’. This section summarises the broad consensus reached by the experts and discusses the literature on the subject. Not surprisingly, what constitutes talent and the signals of talent are often inextricably linked and overlap. In this section, we have tried to distinguish these for the purposes of discussion.

What is ‘talent’?

In response to the question, broad themes emerged: the ability to learn, evolve and adapt; and the ability to create and innovate, sometimes also described as ‘potential’. In addition, individual talent has to be high-performing, that is, stand out against their peers.

**Ability to learn, evolve and adapt**

The ability to learn, evolve and adapt is a recurring theme. The ability and drive to stay up to date, adapting to changing environments and keeping an eye on what’s over the horizon, is key to understanding and responding to complexity.

Below are some quotes from the expert panel:

‘Performance today is a must; the differentiator is the ability to deliver in the future, hence the need to learn, evolve and adapt as the future unfolds.’

‘The trouble with the bottom 10% [underperformers] is that they don’t learn well or efficiently and so cannot adapt to the changing demands of the workplace and general economy.’

These quotes are consistent with the ‘growth mindset’ theory (Dweck 2014), originally focused on adaptive and maladaptive motivational patterns (Dweck 1986). An adaptive pattern results in ‘mastery-oriented’ responses and is displayed by individuals who seek challenges and remain resilient in the face of adversity. Indeed, the ability to survive (and thrive) in a crisis and/or setbacks is deemed an important attribute of ‘true’ talent. ‘True’ talent, therefore, is not fixed but is constantly scanning, learning and adapting.

In describing what talent is, the majority of our panel rejected the binary of talent versus non-talent, arguing that it is relative, contextual and heavily dependent on opportunity to demonstrate one’s potential:

‘While one is not a talent in one particular area or field, one can be a talent in another.’

‘I do not think that some people are not talent. There are individuals who haven’t found the area in which their particular skills would be valuable.’

The ability to respond to changes or novel circumstances or to see an opportunity where others don’t is the subject of the next facet of talent.

**Ability to create and innovate**

Creativity and innovation emerged as key elements of ‘talent’, expressed in the ability to come up with and actualise new ideas, processes and products that add value to an organisation or society in general.

‘I consider “talent” as someone who has the potential to break new ground in their claimed area of expertise; otherwise, one is simply doing what one is trained to do.’

‘Talent is not about the ability to just deliver. It’s more about the capacity and capability to create value. Hence, innovativeness and strategic thinking are more important.’
‘Talented people are continuously innovating and go through numerous failures or learning and yet don’t give up until they are able to create new value for customers.’

Most literature regards creativity as an individual quality, with little attention to the social process that might be responsible for its expression (Zhou and Hoever 2014, Amabile and Pillemer 2012). An experiment on creative behaviour and management style at Rice University’s Department of Asian Management Research suggests that in a creative group, even low-creative personalities – when subject to a managerial style that was less controlling – increased their creative outputs (Zhou 2003). Another finding was that those with high-creative personalities were less dependent on socio-environmental factors such as managerial style.

According to Professor Florida, there are three pre-requisites for economic growth: technology, talent and tolerance (2014). He argued that talent is mobile and flows to places which are most welcoming (Florida 2014; see also Florida 2002, 2006). This is an argument for a celebration of difference, not just for the right policy incentives: ‘if gays feel comfortable in a place, then immigrants, ethnic minorities, and creative people with eccentric personal styles will too’ (Florida and Mellander 2010, in Florida 2014, p198).

For creativity to flourish, Professor Amabile at Harvard University (Amabile and Pillermer 2012) argues that there are four determining forces: (1) domain expertise; (2) creative thinking (for example personality traits, flexible cognitive style); (3) intrinsic motivation; and (4) socio-environmental influences. These present opportunities for policy interventions, for example, encouraging the cultivation of deep domain expertise by redesigning the education system for future innovation (Ong 2015). This and other changes raised by the expert panel to encourage creative thinking, and stronger motivation to innovate/take risks, will be discussed in section 2.

While the panelists agreed that the ability to innovate and create is an essential dimension of talent, they also highlighted that Singapore’s culture rewards conformism and discourages risk-taking behaviour. Failure is regarded negatively, which affects the attractiveness of pursuing higher-risk career choices.

Delivery of results effectively and efficiently: high-performing individuals
The majority of our experts agree ‘talent’ is not about having special abilities and skills per se. It is the delivery of outstanding results and the outperforming of peers that matter:

‘A talent is only a talent when they are deployed and contribute to a specific purpose.’

‘It is the ability and aptness of an individual to perform and excel in a particular task or a number of tasks, thereby contributing to the betterment of the society and nation.’

In all the panel quotes above, the focus is on the individual. But there are different views about what constitutes high performance, or whether the focus should be on the individual, the team or the organisation (Kirby 2005). In determining what’s high performance, the quality of peers (team) and the support provided by an organisation all matter. In other words, performance is relative to the definition of success adopted by the business.

The instability of what constitutes high performance over time can be illustrated by the case of a Netflix employee (McCord 2014). She was a bright bookkeeper who had innovated the royalty system, but when the company became public, her skills were no longer needed. The company needed experienced and certified accountants. Essentially, Netflix changed their business model, rendering a high-performing employee with a prized skillset a low-performer.
What constitutes high performance is also susceptible to the criteria chosen to assign workers to different categories. For instance, some authors refer to the ability to deliver (Aguinis and O’Boyle 2014, Ready et al 2010), while others distinguish workers on the basis of their personality traits/temperament (Amabile and Pillemer 2012, Delong and Vijayaraghavan 2003).

In 2012, O’Boyle and Aguinis conducted five studies involving 198 samples, including 633,263 researchers, entertainers, politicians and amateur and professional athletes. The results, consistent across sample groups, showed that performance does not follow the classic bell curve, where there is an equivalent number of people above and below average. Instead, in 94% of the sample groups, it followed a Pareto distribution (see Figure 1). Such distribution has unstable means, infinite variance and a greater proportion of extreme events. Thus, it accounts for a much higher variance in employees’ performance. The concept of ‘average’, central in the normal distribution, becomes meaningless because there are more outliers. The findings of this research are in stark contrast with the assumptions of many large organisations that assume normal distribution. The empirical evidence in O’Boyle and Aguinis’s study raises questions about the veracity of the metrics applied in the majority of performance management systems.

### Potential

This is perhaps the broadest characteristic of talent and one understood in a variety of ways:

‘The world is experiencing an accelerating pace of change. To be a talent, you have to be superior in adapting to change and have potential.’

‘Current performance alone is insufficient. … Talent needs to demonstrate potential for growth.’

‘The potential is critical in assessing where the talent can develop. Without performance, potential cannot be exhibited.’

In the panel quotes above, there is clearly a relationship between potential and performance. It may be delivering success in the future, having the nascent skill to recognise something of value that others may have missed, and/or the ability to learn and to adapt/adjust.

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**Figure 1: Normal distribution overlaying a power law distribution**

Source: Aguinis and O’Boyle (2014, p318)
The above description also clearly refers to ‘late-stage high-potentials’ (Snipes 2005) but does not apply to ‘early-stage high-potentials’ – in other words, early career professionals, often young people, who don’t have a solid track record. Moreover, performance and potential appear extremely related, but they also differ on one strategic aspect. High-performers are defined by the excellent results delivered in their current role, while high-potentials have the qualities to succeed in future roles (Amabile and Pillemer 2012, Silzer and Church 2009). The two do not always co-exist. Moreover, it might be observed that most assessments of potential are tied to forecasts of skills and job requirements that the organisation will need in the future. If such prediction is wrong, the assessment would be inaccurate and of concern.

Universal definitions of ‘potential’ normally revolve around a few key qualities such as learning agility (Ready et al 2010), and this emerged in our findings as well. However, it is important to augment these with context-specific definitions (Adams 2011, Fernández-Aráoz et al 2011). After all, potential is a situational concept often related to specific job requirements or organisational objectives; from a talent management perspective, individuals need to have potential for something.

Besides having the right qualities, high-potential individuals need a nurturing environment, as highlighted by our experts:

‘Challenges often bring out people’s talents, but nurturing environments are also important. Besides identifying talents that already reveal themselves in various domains, it is also important to provide a nurturing environment for potential talents in an organisation and the opportunities for any potential talent to emerge.’

‘Objectively, they must also be given sufficient resources, room to innovate and experiment, and challenges to take them to higher levels of achievement.’

What are the signals of ‘talent’?

**Motivation**

A clear majority of our panel of experts stated that motivation is one of the main indicators of talent – a prerequisite for learning, developing and succeeding. A diverse range of answers have been categorised under this theme, but they have in common an emphasis on human agency.

In some instances, they describe what the literature labels ‘intrinsic motivation’, a drive for behaviours that are intrinsically rewarding (Ryan and Deci 2000). In other cases the source of motivation is unclear, and it could be either internal or external (for example, pay rise, benefits).

Essentially, talented individuals need to seize or create learning opportunities and be willing to learn and evolve, and they are driven by passion and a strong motivation to succeed and update their knowledge and skills:

‘Individual talents often come with strong personal motivations that ensure growth.’

‘The talent should have the willingness to top up or deepen their knowledge, skills, and experience.’

‘They have a passion for what they do.’

According to the literature, passion is ‘a strong inclination toward an activity that one finds important, invests time in, and likes’ (Vallerand et al 2003, p757). This may link with the construct of intrinsic motivation (Amabile and Pillemer 2012), but according to theoretical streams (Gardner 2013), it is different from the construct of ‘talent’ which typically presumes being good or excelling at something.

**Personal intelligence**

Self-awareness, empathy, ability to engage others and understand problems from multiple perspectives emerged as key signals of talent. In particular, the ability to understand cultural sensitivities emerged as a vital requirement and proxy of talent.
‘Ability to communicate ideas to people of a different cultural and educational background, to “read people” from a diversity of backgrounds.’

‘Ability to recognise and adapt to cultures globally and “suit the palates” of the audience across a region becomes key.’

The panel considerations referred to both self-awareness and the capacity to understand another person’s feelings and motivations. The conflation of inner and outer focus is consistent with the theoretical definition of ‘personal intelligence’ (Gardner 1999). ‘Emotional intelligence’ is a similar theoretical concept specifically referred to as ‘the capacity to reason about emotions, and of emotions to enhance thinking’ (Mayer et al 2004, p197). It includes the ability to perceive, access, generate and control emotion to promote emotional and intellectual growth (Mayer et al 2004, p197).

The possession of such intelligence signals talent, but it does not equate with it, according to our panel. Personal intelligence might facilitate the achievement of excellent results, but talented individuals can be labelled as such if they are high-performers with potential for future roles/achievements and if they are agile learners able to create and innovate.

In addition, the ability to understand and engage others needs to have clear boundaries. Some panellists highlighted that individuals who are able to manage upwards and please their superiors are easily misidentified as ‘talent’, while brilliant minds often lack conformism, and this might result in disapproval from colleagues and superiors.

‘The conformist, who is good at placing himself forward based on an ability to read bosses and their weaknesses.’

‘Awards and career progression can sometimes be the results of cunning and ambitious people who are good at playing the “game”.’

Uniqueness

The majority of our panellists agreed that talented individuals stand out from the crowd because of ‘something unique’ that cannot be codified:

‘Experience and education can be codified, but uniqueness by definition cannot. It is the “special something”, of the intangible, that gives one a competitive edge.’

‘What is most important to stand out is “uniqueness” of the individual. … Uniqueness is often accompanied by a disdain for the ordinary….’

‘Simply two ways of identifying talent: you have unique personalities needed in some contexts, and you need functionaries in other contexts.’

A unique individual is, by definition, highly distinctive in the context where they operate or live. Many will have invested in developing their particular talent or knowledge domain to such a level that they can be considered so ‘unique’ as to be distinct in that particular population. However, at a certain point, this unique individual, in order to realise their potential, will tend to gravitate to places or sectors where they can find like-minded individuals and are welcomed, resulting in high levels of creativity and innovation (Florida 2014).

Psychologists (Snyder and Fromkin 1980) conceptualised a facet of personality known as the ‘need for uniqueness’, which is the individual pursuit of distinctiveness relative to others. We all differ in the strength of such need and we are also motivated by the opposite need for social validation. The latter is associated with conformism, the counterpart of uniqueness. Essentially, we simultaneously pursue assimilation and differentiation goals in our identity construction.

In the literature, people who score high on uniqueness scales exhibit greater creative behaviour, greater cultural estrangement and less concern about social acceptance (Lopez and Snyder 2009). These observations clearly link with the definition of talent that emerged in our findings.
Although our experts mainly focused on the individual, the concept of distinctiveness operates at other units of analysis in the enterprise space, where it is functional to identity construction and sense-making (Navis and Glynn 2011).

**Past experience/track record**

Past experience emerged as one of the main proxy indicators of ‘talent’. In this category, we included references to previous job roles, work portfolio and accomplishments other than academic:

‘Find that a more accurate test might be what the person can do (or has done) and can accomplish (or has accomplished).’

‘They have proven successful in similar tasks in the past and thus have the ability and motivation to be successful again.’

Panellists criticised the education system for stifling creativity, but the main issue lies in the over-reliance on paper qualifications, as outlined below:

‘Some President’s scholars are identified as “talent” based simply on academic credentials, not results.’

‘I strongly believe that talent should not be identified from educational attainment, because this only covers one very small aspect of an individual.’

In a little more detail, they criticised the equation of talent with top academic achievements because there is a wider range of talents, in a wider range of sectors. Moreover, in Singapore top academic achievements might be associated with conformism and lack of creative thinking rather than talent. Brilliant academics are perceived to have safer career paths and this encourages complacency.

Below we present some remarks made by our panel in reference to situations in which ‘talent’ is misidentified or mislabelled:

‘When the quality of the institution where the person studied is confused with quality of the person.’

‘Someone who can talk really well and write good papers, but who cannot actually execute when the occasion calls for it.’

‘Education is sometimes used as an indicator of talent. That seems to be an indicator only during school. Results matter.’

**Conclusion**

‘Talent’ as a construct is problematic, but it materially shapes practices in people management – from employer brand and recruitment to whom you let go. From the panel, we engaged in a discussion of their construction and identification of talent.

The high-level conceptual definition proposed by our panel of experts revolves around these themes:

- ability to learn, evolve and adapt
- ability to create and innovate
- high performance – delivery of excellent results in the present and potential for future performance.

In terms of proxies of ‘talent’, there was consensus around the indicators listed below:

- motivation
- personal intelligence
- uniqueness
- past experience/track record.

As is evident from the list, the construct is broad. The talent management literature we reviewed in order to reflect on the answers shows the conceptual ambiguity of the construct ‘talent’: talent as capital, talent as individual difference, as giftedness, as identity and individual strength (Dries 2013). In the literature, there is also tension between definitions of ‘talent’ as high potential versus high performance (Tansley 2011).
As such, there are no sharp differences between the understandings of the construct ‘talent’ by our panel when compared with existing theoretical or business perspectives.

Regarding the Delphi findings unique to Singapore, these are related to the political, cultural and social landscape where the concept of ‘talent’ is set. Our panel pointed out the impact of culture, labour market and the stage of economic development of a country on the definition of ‘talent’.

While both experts and the literature refer to talent as potential, a gift or some kind of uniqueness, both narratives, despite the ambiguities, have a strong thread of instrumentality. That is, while talent can be potential, giftedness or uniqueness, it matters not if that potential, gift or uniqueness does not translate into a recognisable value. High performance and a track record of success were highlighted by the panel and, not surprisingly, this is also located in the literature. So it seems that one feature of talent stands out – whatever ‘talent’ may be, ‘it’ has to be applied and ‘it’ has to be useful.
2 The drivers shaping the context of talent

This section synthesises and elaborates on the drivers and trends identified by the Delphi experts.

The Delphi drivers

This section provides a synthesis of the expert inputs on what they considered principal drivers shaping the construct of talent. We also briefly report on some of the ‘wild cards’ raised by the experts.

The areas highlighted by the panellists are:

• culture
• labour market
• economic development
• policy interventions.

The influence of culture

Although there are differences, our experts agree that the cultural environment is a big influence on the understanding of talent. According to the panel, the cultural status quo in Singapore is characterised by complacency and a sense of entitlement by home-grown talent; a lower threshold to risk-taking; the high (social) cost of failure; the keen focus on academic excellence; and the highly competitive/self-interested drive in individuals.

The relationship between these cultural characteristics is complex and uncertain. It is beyond the purpose of this section to resolve inconsistencies or establish cause and effect. We merely set out to report the outputs from the Delphi exercise. For instance, complacency and risk-aversion might result from the benign environment (for example low unemployment rate); however, they can also act as ‘drivers’ for maintaining the status quo, and contributing to a deteriorating quality of ‘talent’ in the future.

Culture – impact of a benign environment

According to our experts, the benign environment in Singapore – low unemployment and easy access to decent jobs – may lead to complacency and a preference for security and conventionalism in individuals. A number of panellists argued that the social and economic system does not encourage talented individuals to take the road less travelled. Choices are calculated to be safe(r) and validated by measures of success. An expert highlighted how the focus on following established direction results in ‘calibrated talent’.

A minority argued that in an environment of plentiful jobs and good salaries, individuals are spoiled for choice rather than complacent. Rationally, there is no reason to take higher risks when there are many decent options:

‘There is widespread belief that benign economic conditions will always be present. There are unrealistic job expectations and a misplaced sense of entitlement.’

‘Compared with other recently developed economies such as Hong Kong, Korea and Taiwan, we have not developed “indigenous capacities” for innovation. And it is clear that one “push factor” is what all describe as the conformist thought environment in Singapore.’

‘With the “benign environment”, risk-aversion is simply a practice of the maxim: “Do the minimum and keep your head down.”’

Culture – high cost of failure

Increased acceptance of failure and celebration of innovation are additional factors that may change the status quo.

‘For sustainability, SG has to find its own ways to promote, celebrate and reward the spirit
The future of talent in Singapore 2030

The future of talent in Singapore 2030

of innovation and enterprise, experimentation, and entrepreneurship (both successes and failures).'

The experts pointed out the high cost of failure in Singapore:

‘It’s perfectly rational to eschew risk-taking when you see people who take risks failing or being punished, while those who are conservative “succeed”.

Culture – education and calibration for the conventional

The emphasis on academic excellence as a marker of talent in the education system and in entry into the civil service was seen as limiting the creativity and diversity in critical thinking approaches by home-grown talent:

‘The mind-set change for Singaporeans has to start right in school. This will of course require “lesser” government directives in the educational system.’

‘The education system don’t [sic] teach us how to think. We do, we conform, we scored As. If you [sic] parents are rich, the child don’t [sic] know poverty.’

‘The most dominant driver is: (1) meritocracy in narrow standards-based exams ... is a significant contributor to the risk-averse mind-set of Singaporeans. These exams practically determine the future of Singaporeans with regard to educational and career opportunities. Creativity, innovation and taking risks are often given perfunctory emphasis.’

In some of the inputs, the highly competitive behaviour of individuals – always striving to be the first, best and most qualified – is perceived negatively because it prevents co-operation and collaboration. Such competitiveness can be a barrier to innovation when individuals are so focused on narrow measures of success that they are blind to opportunities that do not yet exist. This was, however, not universally shared, with many experts arguing for complacency rather than hyper-competitiveness.

Rather quietly, a small minority of experts raised the idea that academic achievements may decline in significance as a signal of ‘talent’ in Singapore. No drivers of this marked shift were offered throughout the iterations, so we may conclude that this is seen as improbable in the 2030 timeframe.

Labour market trends

The panellists highlighted the following factors as impacting home-grown talent: low unemployment rate of only 1.9% for 2015 (Ministry of Manpower (MOM) 2016a); labour/skill shortages; reduced inward migration – non-resident growth has fallen from 7.2% in 2012 to 2.1% in 2015 (Department of Statistics Singapore (DOS) 2015); and dips in productivity – annual growth in value added per worker fell 0.8% for 2014 (DOS 2016). To varying degrees, panellists felt that these would increase the sense of entitlement and complacency of citizens, negatively affecting talent quality in the long run.

‘In a way, the restrictions on foreign employees will provide locals with more of a reason to feel they will make it without working too hard.’

‘Obviously Singaporeans become followers rather than leaders and we can remain competitive only by importing foreign talent raised in more challenging or stimulating environments, for example Malaysians.’

‘People who are really quite mediocre are remarkably well paid. Everybody continues to wring hands fruitlessly over the unwillingness of rising executives...
to take overseas assignments in
difficult places. Then the young
Singaporeans complain loudly
that MNCs [multinational
corporations] discriminate against
them when the real problem is they
don’t know any system beyond the
very insulated one here.’

There was, however, no consensus about tighter policies on foreign labour impacting the quality of home-grown talent. As immigration and emigration are relevant to the talent ecosystem in Singapore, this is explored in our scenarios.

Economic development
Many in the panel felt that complacency and a lower risk appetite could mean Singapore not seizing growth opportunities in services, manufacturing, research and development (R&D), art and culture sectors and in technology:

‘Singapore needs to remain innovative and entrepreneurial. Singapore has to continue to exploit its geographical location as a base for manufacturing and trade. It also has the ability to become a popular business destination with excellent corporate governance.’

‘R&D is not seen as an attractive job. And the tendency to follow instructions makes it harder to become leaders in global companies.’

According to a recent report (World Economic Forum (WEF) 2016a) covering 15 major developed and emerging countries, 7.1 million jobs could be lost by 2020. Two-thirds of these are concentrated in white collar roles, while 2 million jobs are predicted to be created in sectors related to/requiring computers and mathematics, and architecture and engineering. The concerns of the panel may be overplayed, but the willingness to lead or manage some of these changes in the job market may be an issue.

Policy interventions
The majority of our experts referred to the dominant role played by policy intervention by the state.

Examples cited of effective state intervention involve policies regulating inward migration, guidance on pay awards (we note the tripartite committees and initiatives, specifically the National Wage Council), the education system and schemes to attract top talent to the civil service (and possibly diverting that talent away from the private sector):

‘Strong presence of paternalistic government which encourages dependency and obedience, and also monopolises talent/diverts it from the private sector. In a recent informal discussion with Singaporean undergrads, including many “scholars”, all expressed concern about the future of the economy, but all also looked to the Government to solve the problem.’

‘I think it’s the Government’s fault. The civil service pays well at the apex, and even for those who do not make it in the civil service, there are many GLCs [government-linked companies]. … It’s not altogether a bad thing because it has ensured over the years that the Government has access to talent.’

‘The key to advance is to loosen the grip of the state, to allow freedom of expression and then also to release these energies through the system.’

The experts acknowledge the effectiveness of state intervention. We note the recent innovations such as the Applied Study in Polytechnics and ITE Review (ASPIRE) programme to enhance the future employability of students, and SkillsFuture, an intervention to inculcate and encourage continuing
education and training (CET). Policies have resulted, to date, in full employment, a highly educated workforce, an attractive destination for global talent, a rising standard of living and security (broadly defined). It is argued by some experts that the downside is a sense of entitlement, complacency, risk-aversion and an over-reliance on the state to provide the solutions every time. Unsurprisingly, many will favour the comfortable security of the status quo and the fallout of changing the social compact in Singapore may have consequences:

‘Government interventions provide a safety net for many and reducing them will help make Singaporeans more self-reliant and take more calculated risks. This will not be popular and the Government could lose votes over this.’

In the scenarios, we explore an alternative direction, where individuals take greater ownership of the issues, reducing reliance on the intervention of the state.

Wild cards
As part of the Delphi rounds, we also sought the view of our panel on things that can create a discontinuity, something that disrupts our assumption that the future is a continuation of the present. These are ‘wild cards’, events that if they came to pass would have high impact with consequences far more than the shape and availability of future ‘talent’. Some elements are incorporated into the scenarios that follow. These are summarised below:

- **Conflict and instability in the ASEAN region/Singapore** – examples offered include: a coup d’état in Malaysia; loss of power by the People’s Action Party (PAP) in Singapore; major terrorist attacks; cyber-attacks.

- **Environmental drivers including climate change** – although the science suggests this is going to happen because of human activity, the precise nature of the consequences of climate change for the region is the focus.

- **Pandemics** – the emergence of global and regional pandemics was considered a wild card severely impacting Singapore as a major logistics hub.

- **A global financial crisis** – this is seen post-2008 as probable and imminent by some (for example Edwards 2016), so possibly no longer a classic ‘wild card’.

Other trends and drivers
In this section, we examine trends identified by our panellists in greater detail as well as some of the trends we consider in the synthetic scenarios in the next section.

Demographics
Singapore’s population stands at 5.54 million people (DOS 2015). In 2015, the growth rate was the smallest in the last 15 years (1.2%), due to the slowing growth in non-resident population, which comprises 1.63 million people.

Indeed, government policies have calibrated immigration. In particular, foreign workers are supposed to address skills shortages and to balance the ageing population (National Population and Talent Division (NPTD) 2013).

The latter is a key challenge, with people aged 65 and over making up 11.8% of the resident population (DOS 2015). The fertility rate has increased from 1.19 in 2013 to 1.25 in 2015, while life expectancy is now 82.8 years (DOS 2015). The age-standardised death rate per 1,000 residents was 3.2% for 2014, falling from 9.1% in 1970 (DOS 2016, NPTD 2015).

In terms of ethnicity, 74.3% of the resident population are Chinese, 13.3% are Malay and 9.1% are Indian (DOS 2015). However, the boundaries between Singaporean citizens and non-citizens are porous, as inter-ethnic marriages have almost doubled in the past ten years, and a third of marriages are transnational (NPTD 2015).

These trends raise potential issues around extended working lives, career progression, social, health and welfare support for an ageing population, and economic growth. For instance, to mediate the low fertility and an ageing population, Singapore will have to retain its attraction as a destination for talent while sensitively managing its policies on inward migration.

Economic
Household wealth per adult has plateaued in domestic currency units since 2012, but average wealth remains high at US$269,400 (Credit Suisse 2015). Indeed, the median gross monthly income from work of full-time employed residents increased 5.3% (real) between 2014 and 2015, reaching SG$3,949 (MOM 2016a). Despite this positive outlook, Singapore’s Gini coefficient is 0.393, after government transfers and taxes (DOS 2014), suggesting a high level of inequality. The latest OECD
median is 0.302 (OECD 2012). It is worth highlighting, though, that an international comparison of Gini coefficients might be unfair because the comparison is between a country and a small city-state. Cities such as London, Hong Kong and New York all have high Gini coefficients (The Economist 2015).

The employment situation in Singapore is positive. The resident labour force participation rate has grown steadily in recent years, to reach 68.3% in 2015, while the employment rate peaked at 80.5% (MOM 2016a). The employment is distributed across services (71.5%), manufacturing (14%) and construction (13.7%). Manufacturing is shrinking. There were 14,000 redundancies in 2015 (MOM 2016a). Nonetheless, the unemployment rate is only 1.9% and the number of vacancies outnumber job-seekers (116 vacancies per 100 job-seekers).

Singapore has positive GDP growth projections for 2016, standing at approximately 2.2% (Monetary Authority of Singapore (MAS) 2015), which reflect the overall positive outlook for the Asian region. The International Monetary Fund (IMF) predicted steady growth of 5.4% in 2015–16 (IMF 2015).

Singapore is a member of the Association of Southeast Asian Nations (ASEAN), an influential regional block comprising Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam.

In 2014, the ASEAN economy was the third largest economy in Asia, and the seventh largest economy in the world (ASEAN 2015). ASEAN GDP peaked from US$1.33 trillion in 2007 to US$ 2.57 trillion in 2014, and average GDP per capita grew from US$2,343 in 2007 to US$4,135. Intra-regional trade is strong, and foreign investments have increased (ASEAN 2015).

ASEAN is still vulnerable to extra-regional dynamics, as its trade is tied to extra-regional economies (Kabir and Salim 2014). For instance, China is the major export destination for Indonesia, Malaysia, the Philippines, Singapore and Thailand (ASEAN-5) but its growth is expected to slowdown in the next few years (World Bank 2015). China’s investment growth will moderate because of tighter credit and property sector conditions (World Bank 2015).

Among the ASEAN countries, the Philippines seem to have the best outlook. According to the World Bank (2015), its economy will have a near-term 6.4% growth in 2016. Vietnam shares a positive growth too. Indonesia and Malaysia might be negatively affected by weaker global commodity market conditions. In Malaysia, growth will stabilise at around 4.5–5%, while the outlook seems uncertain for Thailand, which is forecasted to have a weak growth at 2–2.5% by 2017.

Indeed there are significant differences between member states. The standard deviation in average incomes among them is more than seven times that of EU member states (McKinsey 2014). Their collaboration to resolve such disparities could be the key to strengthening the ASEAN global position.

We explore the uncertainties in the region in Scenario 3.

**Technology**

Information and communication technologies (ICTs) remain a potent driver of change, providing both risks to the status quo and opportunities. Gartner’s Top 10 Strategic Technology Trends for 2016 include: sensors on a variety of devices and instruments meshed together to collect data about their users; 3D printing moving on to organic material, including food; the information of everything; advanced machine learning; autonomous agents and things; adaptive security architectures that learn from cyber-attacks and adapt responses and agreement on the architecture standards to enable different systems to work together (Forbes 2016).

Singapore seems well positioned for the coming digital innovations. It ranks first out of 143 countries on the World Economic Forum Networked Readiness Index (WEF 2015), with a score of 6.0/7.0. Finland shares the same score, and it is followed by Sweden, the Netherlands, and Norway (5.8). Singapore topped three out of ten pillars of the index: business and innovation environment, government usage and social impact for ICT. It also scores well on the ICT-readiness of its workforce (second to Finland) and has 53% of the population employed in knowledge-intensive jobs (second to Luxembourg). These reflect Singapore’s ambition and Smart Nation 2025 vision (Infocomm Development Authority of Singapore (IDA) 2016).

The enablers for Singapore to take a lead in applying many of the emerging technologies (skilled workforce, proactive policies, advanced ICT infrastructure, and so on) are already in place. The challenge will be to maintain the quality and motivation of its highly skilled workforce, and continued investment in education (Kielstra 2014, Goy 2015). As a highly networked city-state, another challenge might be related to the ever-present threat from cyber-attack, with implications for the skills base required to maintain credible cyber defences (Rosenquist 2015).
**Environment**

According to recent statistics (NASA 2016), the earth’s temperature has risen by 0.87 degrees Celsius since 1884, while 2015 was the warmest year on record. Carbon dioxide (CO2) levels have reached the highest historical levels in 400,000 years at 402.56 parts per million (ppm). Sea levels are rising by 3.39mm per year, and Arctic sea ice is decreasing by 13.4% per decade.

In 2016, failure of climate change mitigation and adaptation is perceived as the most impactful risk for the future (WEF 2016b).

Singapore’s green efforts brought measurable results (National Climate Change Secretariat (NCCS) 2015). In the last decade, its emissions grew at an average annual rate of 2.0%, compared with 2.2% globally; from 2000 to 2010, the carbon intensity decreased by 30%, compared with the global average decrease of 0.12% (NCCS 2015). Nonetheless, its ecological footprint is the seventh largest in the world (Worldwide Fund for Nature (WWF) 2014).

Annual mean temperature, mean sea-level rates, and annual average rainfall have all increased in Singapore, confirming the global and tangible implications of climate change (NCCS 2016). Moreover, the city-state is highly vulnerable to disasters in neighbouring countries, such as the annual burning of land in Indonesia. In this regard, the MOM has devised haze guidelines and advisory for work, with a particular focus on outdoor work when air quality is hazardous (MOM 2015).

In the future, climate change in Singapore and the Asian/Pacific region could lead to extreme natural events (Mrsnik 2015). Possible consequences are disruptions in food and water production, displaced people, conflict, poverty and illnesses (Intergovernmental Panel on Climate Change (IPCC) 2014). What is challenging to anticipate is the kind of skills required to manage these climate change consequences.

**Political**

One of the successes of ASEAN is that it provides a mechanism upon which member states can manage disagreement. Regional stability, however, depends on historical tensions in East Asia (for example North and South Korea; China and Japan/Vietnam) and the United States. In addition to the AEC, Singapore is party to the Trans Pacific Partnership (TPP) and the USA/Singapore Defence Cooperation Agreement.

Another source of tension is the potential for increased terrorist activity in the region (Rand 2009). While Singapore is vigilant to external threats, the statistics suggest that these are relatively small threats in terms of danger to Singaporeans on home soil. Terrorist activity was found to be highly concentrated in five countries, accounting for 78% of all deaths – Iraq, Nigeria, Afghanistan, Pakistan and Syria. Since 2000, only 2.6% of deaths, including 9/11, occurred in the West. People are 13 times more likely to die from homicide than terrorism (Institute for Economics and Peace 2015), even with a nine-fold increase in terrorism fatalities from 2000 to 2014.

Globalisation – the increased interconnectedness and interdependence of peoples and countries – which encompass flows of people, goods, services, finance and ideas across borders (WHO 2016) is likely to continue apace but with resistences at local, national and regional levels (eg Bhatia et al 2015).

**Social**

Overall, Singapore remains a socially conservative society, and this is reflected in its social attitude towards LGBT (lesbian, gay, bisexual and transgender), pregnancy outside marriage or living together without getting married (Institute of Policy Studies (IPS) 2014). The Human Rights Watch Report 2015 discusses various limitations to human rights in Singapore, including those pertaining to: freedom of expression; peaceful assembly and association; the criminal justice system; sexual orientation and gender identity; the treatment of human rights defenders; and the treatment of migrant workers and labour exploitation (Human Rights Watch 2015).

Singaporeans value families, they want to get married, have children and express filial piety (IPS 2014, Our Singapore Conversation 2012). In 2013, the Survey on Social Attitudes (Channel News Asia 2015) found that 55% of respondents stated that work prevents them from spending the amount of time they would like with their family, an increase from 47% in 2009.

The Our Singapore Conversation Survey (2012) highlighted job security, healthcare and housing as the top priorities for respondents in 2012. Values relating to sense of community, nationhood and security were strongest. A key finding was that when Singaporeans had to choose between career advancement and pace of life, they chose pace of life. In terms of education, it was found that respondents preferred a more holistic and less competitive education system. These findings are aligned with most themes that emerged in our Delphi exercise and will be explored further in the scenarios in section 3.
In this section, we present four scenarios set in 2030 Singapore.

Scenarios are vignettes, short stories designed to include plausible but potentially extreme developments in order to stimulate discussions on current assumptions of the future, and to provide alternative trajectories to the standard, linear three-to-five-year strategic planning approach. A scenario is not a prediction and no one scenario is likely to play out in its entirety.

Here, we present four scenarios set in 2030 Singapore. We have selected some drivers, established their direction or underpinning assumptions, investigated trend data to support (or test) our chosen drivers and the underpinning assumptions about them and synthesised several mini-scenarios for which three were selected in addition to the one representing the status quo. Following each scenario, we raise some of the implications arising from each scenario.

In Steady as she goes, we have created a baseline scenario where 2030 is recognisably a projection of the present. There are no nasty surprises or assumptions, and current trends – the focus on academic achievement as a proxy for talent; full employment; reliance on foreign talent, and so on – are played out.

No one is an island explores a future where technology has removed the middle person in many relationships. For example, lenders and borrowers don’t need the bank as an intermediary when they use peer-to-peer, crowdsourcing platforms and individuals and groups disintermediate traditional broadcasters by creating their own content and selectively sharing updates to their networks. This is reflected in the demise of older industries as new business models use new technologies to disintermediate them. These changes are also reflected in the political and social arenas.

The third scenario, Fortress Singapore, is driven by threats to security. It explores what it means for Singapore to conscientiously strengthen its defensive capabilities to protect itself against physical, cyber, civil, political, economic and psychological attacks.

In the final scenario, Bless thy neighbour, Singapore has a vision of a stable, prosperous region and draws on its financial and human capital to lead the transformation of the region.
This baseline scenario assumes no major disruptions. The future in 2030 Singapore is recognisably a continuation of the present.

Economic drivers and trends
Globally, economic growth in the last 20 years has been uneven but generally sluggish. Southeast Asia and East Asia have proven to be resilient with higher than average growth. The principal focus of government is to sustain economic growth by ensuring that Singapore is an attractive investment destination and one of the best places for start-ups and business generally. While the costs of doing business in Singapore are high, its competitiveness is maintained by a highly skilled, industrial-action-free workforce, stable rule of law, world-class infrastructure, efficient logistics and joined-up policies.

The Government maintains a pragmatic approach, adjusting policy in response to or in anticipation of macro-economic signals. Inward migration policies are sympathetic to the needs of businesses but also linked to higher requirements for the up-skilling of the available labour. Singapore is even more of a service economy and has invested heavily in new technologies to increase the per capital value added of its workforce. The healthcare sector, for example, is increasingly driven by technology with virtual physician consultations, automated dispensaries and fewer nurses because of global demand, as most developed countries face ageing populations.

While nimble policies and a stable region have ensured a generally steady growth rate in Singapore, the workforce continues to age, work long hours (for a developed economy) and, more and more, productivity gains are a result of technological investments, innovation and a steady supply of foreign talent. Following established trends in other developed nations, a national minimum/living wage is about to be implemented in 2030. The steady exodus of baby boomers has been managed by government initiatives to raise the retirement age and by incentives that keep citizens active in the workforce for longer. With inflation and unemployment generally low, the local workforce continues to enjoy real improvements in their material standard of living. The rapidly ageing workforce, however, remains a risk to further sustained economic growth in the years ahead.

Scenario 1
Steady as she goes

- Steady state with no discontinuities. Recognisably like 2015
- Economic growth and the market are primary drivers
- Educational accomplishments the gold standard signal of ‘talent’
- Population ageing, with managed migration
- Higher standard of living as projected but future growth constrained by demographics
- Traditional sectors dominate: finance; logistics; professions, knowledge sectors

‘Progress is the nice word we like to use. But change is its motivator. And change has its enemies’
Robert Kennedy
**Political drivers and trends**
The region, despite occasional crises in governance, remains politically calm. Tensions between ASEAN and East Asian neighbours are managed diplomatically. The two Koreas, despite occasional spats, have remained relatively calm. In Singapore, the People’s Action Party (PAP) retains its dominant majority. Singapore is celebrating 65 years as an independent nation, all of that time under the PAP. It continues to maintain a sophisticated future and foresight capability to guide long-term strategic choices – in the economy, in security and in international relations. It has continued to encourage more networks and partnerships across the region via scholarships and awards for young talent as well as mid-career professionals. These have forged a cadre of up-and-coming Asian leaders who share Singapore’s belief in good governance, open markets and strong, principled leadership, mostly.

**Social drivers and trends**
Singaporeans remain socially conservative and self-reliant. The small families and rapid ageing have increased the care responsibilities of those of working age. This coupled with the continued widening of income inequality has meant greater state support for adult care services and enhanced social welfare support.

Compared with 2015, the citizenry is far more vocal about what they consider ‘unfair’ policies. Better educated and with rising expectations of the state, they are more critical users of public services. The older population are now a political force, organising to lobby for ‘fair’ policies for those who have contributed over a lifetime of work but are no longer economically active.

The social demands for higher standards of fairness that befits a developed economy has resulted in a new Employment Act. This ensures enhanced benefits (maternity, paternity, paid sick leave), greater flexibility in work arrangements and clearer employer obligations to ensure the health and well-being of their employees and contractors. These have resulted in higher labour force participation by women and older workers, as both groups are better able to balance work and personal commitments.

**Implications**

**State**
- The state remains responsible for ensuring economic growth in Singapore.
- The state is responsible for policy interventions to improve the quality and relevance of skills in the workforce.
- With stability and economic growth, citizenry expectations of the good life continue to rise.
- Pressure to provide a stronger social safety net as care responsibilities in a rapidly ageing, low fertility population puts intergenerational care pressures on those in the workplace.

**Society**
- The question of fairness is growing with rising income inequality and intergenerational responsibilities.
- The discussions on fairness raise debates about attitudes towards diversity and difference. The issues around xenophobia, ageism and gender equality are regularly aired.

**Organisations**
- Managing employee perceptions of (un)fairnesses is a growing management issue.
- The workforce expects their employers to provide better and better conditions.
- One area of notable difference is greater provision and use of flexible work arrangements.
- The management and development of talent is also recalibrated to reflect rising expectations of the workforce.
- Productivity and people development remain big concerns in organisations as competition in the region increases.

**Individuals**
- Individuals must accept that learning is, more than ever, a lifelong pursuit.
- Academic attainments and professional accreditation remain essential proxy measures of ability.
Scenario 2

No one is an island

• Technologies encourage disintermediation in traditional sectors
• In finance, transactions without banks; Driverless technologies; algorithms cannibalising professional practice; Transactions via Block-chain technologies
• More entrepreneurialism. New business models
• More diverse population with more challenging demands
• More socially-oriented solutions rather than market-driven ones
• Shift in the social compact

Disintermediation ˌdɪsɪntəmi:diˈɛʃ(ə)n/ Noun Economics

1. reduction in the use of intermediaries (the middle person/agent) between producers and consumers, for example by involvement in the securities market directly rather than through a bank.

Concise Oxford Dictionary (10th edition)

This scenario examines how technology, politics and social shifts contribute to a citizenry that takes greater personal ownership of their lives and life choices in 2030.

Political drivers and trends
Singapore now has a small but growing entrepreneur class. Many of the new immigrants in 2015 – faced with higher thresholds for skilled workers, accelerated localisation of executive positions and a very favourable environment for start-ups – have used their global networks to build new businesses in low-tax, high-skills Singapore. These emergent businesses are thriving, encouraged by a more experimental policy environment, working with these entrepreneurs to adjust and create policies, or simply accept that these new organisations should be allowed the space to try things out without policy guidance – at least while both sides learn what works best.

This ‘crowdsourcing’ policy approach works so well that this is applied to other areas where fresh ideas are needed, such as in adult care. With an ageing population, small families and ever-higher expectations of what the state can deliver, policy experimentation has resulted in a number of non-profit initiatives led and delivered by the community. Another reason for encouraging a variety of approaches to managing social issues is the diversity of the citizenry. Many immigrants of 15–20 years ago have settled in Singapore. While they appreciate the prosperity and security of this city-state, they want more say in policies that impact them, such as education and civil liberties.

The Government recognises that the social compact is shifting. The price for innovation – a more diverse professional class and greater community ownership of social issues – is a need for more transparent, co-created policy. While this has been a success in adult care, the decentralised delivery of education, greater freedom of expression and equality of sexual minorities will raise more tensions in a largely conservative population, one happy to turn to the state for every solution. Nevertheless, the benefits of a more mature relationship are clear: a more trusting
relationship between citizen and state; higher awareness and ownership of the issues of the day; and the injection of new thinking and solutions.

**Social drivers and trends**
The success of the new migrants and their visibility as entrepreneurs in emerging sectors have brought new business models and ways of working which contrast sharply with the conventional preference for a secure, lower-risk professional career. This is rapidly changing. These emergent sectors are looking for skilled, highly motivated employees who may not have gone to the best universities. These emergent businesses, while not secure, offer an exciting alternative to those not immediately looking for a career but a developmental opportunity where their ideas and energies can be channelled to the creation of something new and novel.

For those who do want to take paths less travelled, Singapore now has thriving start-ups (mainly in technology) and numerous grassroots organisations providing experimental solutions to social issues. A greater shared ownership of issues – a result of a policy-light approach – has also brought other advantages. The sharing economy is beginning to emerge. Car ownership, long seen as an essential signal of success, is now seen as unsustainable and has been largely replaced by car-sharing schemes.

Even established institutions are responding to the shift to crowdsourced, co-created solutions. Many colleges and universities have redesigned their evening enrichment classes to reflect the demand of lifelong learning in the heartlands. The range of topics have been eclectic, reflecting the fact that not all the tutors are academics. Many are talented amateurs who have worked with the universities to deliver ten-week programmes. Programmes are subsidised and usually over-subscribed. A spin-off of these programmes is that they have built trust in the universities, many of which have set up pilots that identify and study areas of concern to communities and to then experiment with different solutions to these. Sometimes it’s a technology solution, sometimes an education solution and oftentimes one of just joining the dots to enable a local solution to be delivered.

**Technology drivers and trends**
Singapore, keen to adopt technologies that increase efficient use of scarce resources, has adopted driverless vehicles. As the technology matured, Singapore set about putting in place the legal framework and the procedures and infrastructure to enable driverless vehicles.

On the whole, most citizens are pleased with the innovation. Shoppers are able to book vehicles for pick up on average ten minutes before they require transport. They are no longer held hostage to shift patterns and drivers who only pick-up passengers if they are “on their way”. This has revolutionised the internal logistics system when coupled with road-pricing systems so the road infrastructure is optimally used – a consideration in a land-scarce nation. The logistics industry has worked closely with the Government to integrate goods transportation with systems at the ports and at the airport. The cost savings, relative predictability and security of these systems mean that Singapore has persuaded exporters in Malaysia to sign up to the standard.

In the financial sector, several innovations are impacting business. Peer-to-peer lending is now more than a curiosity. Although still small, peer-to-peer transactions now amount to some S$50 million per year and is growing as trust grows. The big draw is that the return is about 200 basis points above that offered by the best fixed-deposit accounts with similar tenures, reflecting the risk profile. There is also the sheer convenience of payment systems that disintermediate banks using any mobile ICT device. Crowd-funding is also growing, with entrepreneurs, inventors, film and the performing arts using this route to fund some of their projects.

Block-chain technology is now a mature technology allowing a clear logging of every transaction, providing a straightforward evidentiary trail. This has reduced the number of disputes on the evidence. The Singapore Stock Exchange (SGX) moved their equities clearing and settlements system onto the block-chain five years ago. There is greater use of smart contracts – automated protocols that facilitate, verify or enforce a contractual clause – providing more security than traditional contract law. This has impacted on the demand for legal and judiciary services. While there are still complex cases requiring technologically savvy lawyers who can understand smart contracts, which can fail, by and large the caseload because of block-chain technology is far smaller in 2030.

**Implications**

**State**
- The loss of jobs in the traditional sectors and the transition to new sectors and new technologies must be managed. Possible call to provide social safety nets for more people.
- The drive to encourage higher engagement of the citizenry in policy co-creation (via crowdsourcing platforms?) requires different skills in the civil
service. It is more time-consuming, but the clear objective is building trust in the process and ownership of the issues.

- There is a demand for more voice by new immigrants, especially if they become visible leaders in the ‘new’ economy.

- Disintermediation of official sources of information by a variety of formal and informal providers reflects a growing call for less censorship and more civil liberties.

**Society**

- Changing attitudes to what constitutes success – it is more acceptable to not focus on the academic excellence route and try other approaches, for example being an inventor, setting up a business.

- The sharing economy emerges in response to changes in the measures of success. For example, individual ownership of a car is no longer ‘cool’. Instead, there are car clubs and car-sharing initiatives.

- There is a higher risk threshold as more and more try alternative paths to academic qualifications as a route to success.

- There is a small shift away from dependency on the state to provide all the solutions and to take the blame when things don’t go well. Increasing numbers take ownership of issues that affect everyone. It’s a maturing social contract where voice and responsibility go hand in hand.

- Support is needed for those transitioning from work to being in between work due to the decline of traditional sectors such as manufacturing and constant innovation in the services sectors. State reliance on families and social networks to support the resultant unemployment of some puts strain on some families and individuals.

- Where some quarters demand to be heard, there are simmering tensions around diversity and difference.

**Organisations**

- New business models and technologies cannibalise some traditional sectors, changing the demand-side for skills. New economy sectors will find the talent they need difficult to find, while others face unemployment.

- The workforce’s higher expectations of their employment manifests itself with demands for greater say in job design, workplace flexibility and so on. This will require change in management skills and leadership approaches. Engendering trust into the employment relationship will be important. Employers need to trust their employees more by delegating the appropriate-level decision-making responsibility and authority to their employees based on job scope.

- Those who may not want the traditional career deal will pose a challenge to some employers as they grapple with providing diverse deals to attract and retain talent.

- Organisations may have to deal with higher risks and tolerance for failure in this world of disintermediation.

**Individuals**

- Individuals face greater uncertainty with the creative destruction of traditional sectors. There is a question of how to maintain employability: acquiring new skills; going into another sector; emigrating?

- Disintermediation requires individuals to take ownership of issues, to proactively solve problems and propose solutions to potential issues. Employees, in general, need to feel more comfortable in taking charge of their work and, most importantly, be willing to bear personal responsibility for actions. This is a fair expectation of employers and it is this culture of task ownership and constructive voice that will be valued as part of talent.

- More individuals will have a higher appetite for risk and trying new pathways to success.
Scenario 3

**Fortress Singapore**

- Failure of national governance in Southeast Asia
- Region experiencing fiscal crises, capital flight, forced migration, sectarian violence, disasters due to human omission/commission
- Singapore remains intact with a functioning economy
- Focus is on building defensive capability
- Domestic surveillance and intelligence gathering intensified
- Areas of concern: sovereign borders; cyber-security; economic stability; terrorism

This scenario explores threats to security as drivers, whether real or perceived, and how that affects the construction of reality in 2030.

**Political drivers and trends**

The failure or inadequacy of national governance is widespread in Southeast Asia. There have been several high-profile reports of politicians and corporations involved in bribery and fraud. Singapore businesses have been implicated in some of these investigations. Corruption is the norm in many parts of the region. Weak or immature institutions and a lack of investigative freedom in the media mean there’s little accountability.

While a handful have tentative ‘democratic’ rule, most are autocracies. A few are embroiled in fiscal crises. As these states border on failing, there are flows of migrants and refugees to neighbouring states. Singapore is steadfast in refusing entry to all irregular migrants, despite calls by the international community to demonstrate humanity to refugees. There is increased capital flight, mainly to the security of Singapore and beyond.

With regional governments focused on economic and financial crises, sectarian interests rise to the surface. Separatist groups in Indonesia, Malaysia, Laos, Thailand, Cambodia, Vietnam, Myanmar and the Philippines are emboldened and maintain a steady stream of guerrilla activity. These form fertile ground for more fundamentalist belief systems to thrive – some based on ethnic lines, some on nationalism and some religious. Considerable resources are spent by governments on surveillance, domestic intelligence and equipping of internal security forces. In Singapore, security agencies have thwarted some attacks, but several cyber-attacks in the form of ‘denial of service’ have occurred.

The South China Sea is also tense with territorial disputes, and historical animosities between countries surface every so often. Singapore, mindful of its dependence on open international shipping lanes, has formed a clear and firm alliance with the United States, providing not just logistical and servicing support for US vessels and planes and joint military exercises, but intelligence and financial contributions. In the region there is a fine balancing act between the two largest economies – China and Japan.

‘Fear of a name increases fear of the thing itself.’

J.K. Rowling, *Harry Potter and the Philosopher’s Stone*
The focus on economic integration, while maintaining a very light touch on social and political maturity, means that ASEAN remains a region of mixed fortunes, developing at very different rates. The percentage in ASEAN who’ve reached the middle classes have risen slightly in 15 years. The notable increases have been in Vietnam, the Philippines, Cambodia and Myanmar, while in Malaysia and Thailand the numbers have plateaued – but of course with vastly different levels of disposable income.

**Social drivers and trends**

The threat to Singapore’s security, prosperity and way of life by instability in the region has fanned xenophobia. There is considerable resentment against professionals in the region relocating to Singapore, placing strain on Singapore’s open-door policy to talent. While businesses are crying out for more skilled migration, they are far less able to deal with the hostility to talent from some countries and the sometimes blatant racism.

The activation of Total Defence in the face of real and virtual security incursions has united Singaporeans tribally – those born in Singapore (the ‘us’) and the non-locals (the ‘them’), who are seen as freeloaders in the good life, not subject to the demands of military service and defence call-ups.

Xenophobia is further legitimised in the rise of fringe groups who advocate a closed-door policy, discriminatory policies and even social segregation. These attitudes damage Singapore’s open-for-business brand and discourage the flow of top talent to Singapore. Some good people decide to move to more welcoming markets, such as the Gulf States.

**Technological drivers and trends**

Singapore’s Smart Nation 2025 programme has been a huge success and it has derived huge benefits from being the most networked country in the world for the past decade. This has enabled better and more intrusive state surveillance to match counter-surveillance technologies and techniques which are easily accessible. This is necessary as Singapore’s highly interconnected systems make it particularly vulnerable to cyber-attacks. In the past year alone, nearly a hundred companies have been targeted and several dozen have had their communications suspended for several hours. Data theft is a growing problem. The Singapore Government has denied, unconvincingly, that any attacks have been successful. Anecdotally, there are more cyber-security consultants working in Singapore, many from Singapore ally Israel. Another sign that cyber-security is an issue is a couple of high-profile international investigations involving transactions through Singapore involving bribery and breaches of US anti-money-laundering arrangements.

With Singapore’s position as the first ‘smart nation’, privacy – ‘freedom from unauthorised intrusion’ (Merriam-Webster 2016) – has become a divisive social issue. Drone technology, video analytics of CCTV, social media and big data analytics have placed personal privacy front and central in the debate. Singapore, like other highly developed nations, saw government surveillance continue well into the mid-2020s. However, a backlash emerged when whistle-blowers revealed the full extent of surveillance. With increases in social media uptake, there have been moderate gains in freedom of speech and civil liberties. However, government continues to control media freedoms within Singapore.

Singapore faces unprecedented challenges in the area of cyber-terrorism as data analytics and data protection are fundamental to its survival. Cyber-terrorists have threatened private citizens, governments and organisations during this time.

**Implications**

**State**

- Maintaining trust in a high-security situation is a core responsibility and challenge – trust that the state is doing the right thing and building trust in society. As the state focuses on central planning and mobilising defensive resources with strong leadership, there will be challenges to its need to maintain censorship, restrict civil liberties and maintain surveillance of its own citizens.

- The focus on security affects all stages of development of a nation’s human capital, from school, co-curricular activities, and military service to a strong steer towards science, technology, engineering and mathematics (STEM), likely at the expense of the arts and other less ‘useful’ pursuits. Many citizens will not be comfortable or accepting of the firm direction provided by the state in so many areas of their lives.

**Society**

- The drivers encourage a very tribal society and this does not bode well for diversity. Managing social cohesion will be a challenge. This is a conservative, fearful and closed society suspicious of difference and otherness.

- Xenophobia, playing especially to certain stereotypes on nationalities and race, will deter some talent from moving to Singapore.
Organisation

- There is a focus on cyber-security and data security for many organisations. Much will be invested in systems to provide secure ‘walls’, but these attacks are commonplace and on occasion successful – usually due to human error or negligence.

- Risk assessments of doing business in the region are the norm. With security issues multiplying, organisations will find it even more difficult to deploy home-grown talent to these countries, especially with strict bribery and corruption rules governing Singapore companies and their executives and agents.

- Attracting foreign talent to Singapore could also be more difficult as it is seen to be less welcoming to certain migrants.

- There is surveillance and monitoring of employees. Sometimes this is done openly and sometimes without the knowledge of the workforce.

Individual

- The steer on the kind of skills that Singapore will need is clearer. There will be a lot of emphasis on talent to support Singapore’s sophisticated defensive capabilities. But these will be augmented by expertise and skill in negotiation, leadership and developing capability in good governance.

- There remain many opportunities in traditional professions and sectors and fewer opportunities in areas such as media and the arts as resources are focused on defence. Singapore may be less attractive for those who wish to pursue alternative careers.

- The constant surveillance and monitoring plus the uncertainty over how these data will be used is an issue that more and more are willing to voice.
Singapore recognises that it is, in the longer term, mutually beneficial for it to build the capability of ASEAN to deliver better lives to their millions.

**Environmental drivers and trends**

In 2020, five years after COP21 on stabilising global warming was signed, the region continued to struggle to diversify from a carbon economy. Energy security concerns in Singapore have prompted a more ambitious decarbonisation target of 40% for 2030. Deforestation and habitat destruction continued unabated in many ASEAN countries (Gaspartos et al. 2011). More immediately, this was the third successive year of heat and water stress across swathes of continental Asia. Ineffectual responses from many ASEAN countries impacted Singapore. Food prices soared across the region as crops failed in many parts of Asia. Food prices eclipsed those of previous food crises. Singapore’s national reserves and the ASEAN plus three emergency rice reserve (APTERR) (AVA 2016) were largely depleted after several years.

In conjunction, burning of peat land continued unabated, making air quality an annual crisis in the city-state by 2020. Mitigating the effects of climate change and environmental pollution to ensure socio-economic stability became a priority for Singapore and ASEAN.

**Economic drivers and trends**

Despite the regional crises, Singapore continues to grow. Its GDP per capita (purchasing power parity) in 2030 exceeds US$130,000, an increase of more than 60% in 15 years. A development superstar by any measure, it has much to be proud of.

In 2020, following the decimation of the agricultural lands in much of ASEAN, Singapore was invited by the other ASEAN countries to lead the rebuilding of economies now experiencing rising levels of poverty after many years of progress. Despite initial reservations, Singapore saw that this was an opportunity to validate its model of development, develop its cadre of leaders and build long-term relationships and markets in its ‘hinterlands’.

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**Scenario 4**

**Bless thy neighbour**

- Singapore is a very wealthy, safe city-state
- Population is well educated and there is full-employment
- Drive to find Singapore’s place in the world – change in leadership
- Leadership and the citizenry are visionary
- Act on the change they want to see in the region
- Change the economic fortunes of several countries due to the leadership of Singapore

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‘**Competition has been shown to be useful up to a certain point and no further. Cooperation must begin where competition leaves off.**’

Franklin D. Roosevelt

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Working with the World Bank, the Asian Development Bank, the Asian Infrastructure Investment Bank and the UN Development Programme, and private foundations such as those headed by Bill and Melinda Gates, Singapore mobilised talented Singaporeans in public and private sectors. All were excited by the vision for a region badly scarred by years of environmental disasters. Through selected investments and investments in infrastructure and the development of human capability, Singapore began a sustained programme of technical assistance to the region. Drawing on its considerable expertise in financing and its AAA sovereign rating, it secured long-term funding for the programme.

Using the tripartite model of unions, employers and government, a model successfully applied in Singapore (MOM 2016b), Singapore brokered fair wages, a comprehensive education and skills programme and consultative, management practices in ASEAN economic zones located in hitherto high-poverty areas. These pilots were soon replicated successfully elsewhere, improving hundreds, then thousands, of lives. In 2030, the ‘bless thy neighbour’ programme has delivered schools, bridges, good government and sustainable land management practices in many parts of ASEAN. Singapore’s model of using partnerships has accelerated the replication of pilots all over Southeast Asia and beyond. In return, Singapore has developed strong and long-lasting relationships in the region, improved governance and resilience, and reduced security risks.

**Technological drivers and trends**

There are now ‘blue economy’ pilots across ASEAN funded by various development agencies, and some are models of innovation. Investment and advances in energy storage have helped to increase the number of renewable energy initiatives. Singapore’s decision in 2020 on decarbonisation has brought economic advantages, as other nations now look to its expertise in moving to clean energy and a more sustainable economy.

By 2030 Singapore is the world’s first ‘smart nation’. People have lived through 15 years of convergence into a brave new world characterised by speed, disruption, innovation and exponential development, mainly driven by advances in technology and entrepreneurship.

There is an adventurousness in Singapore when adapting and adopting new technologies that has seen Singapore succeed where other nations and cities have failed. In addition to the advantages of being a global hub that is safe, efficient and light on corruption, it is the confidence, maturity and openness of its citizenry that has shifted Singapore from an economic miracle to a leading developed nation.

**Implications**

**State**

- Leadership is of a very different paradigm from Fortress Singapore; it is visionary rather than protectionist. The leadership is able to take a long-term, systemic view of change and invest considerable time and energy in examining a wide range of externalities. This is where futures methodologies and strategic planning meet to produce alternative futures.

- There is a high threshold for risk and failure. This is a time when fresh thinking and new solutions will be tried out as the limitations of short-term fixes and policies are rejected. A social safety-net is in place to support and build the sense of security necessary for encouraging higher risk-taking.

- The state is motivated by a higher purpose than economic advantage. The kinds of externalities that are now taken into strategic planning involve: sustainability; questions of intergenerational fairness; ecological rights and responsibilities; and the possibility of interventions outside Singapore to provide longer-term solutions.

- However, there is still an expectation that the state, as the honest broker, will play a key role in co-ordinating the efforts of all to ensure economic success and fair sharing of the rewards in order to pursue Singapore’s bigger vision globally.

**Society**

- Singapore has a very mature and confident society, which is able to take long-term views. Here, there is ownership of the big issues of the day by the citizenry and a lively national conversation about Singapore’s role in the world, and what value it brings to solving these big issues excites and engages the populace to come up with fresh ideas and solutions.

- It is no longer driven by mere material advantage, but rather by doing something that is driven by a global vision.

- Singaporeans, while proud of who they are and what they have achieved, see themselves as part of a global community.
**Organisations**

- Organisations see themselves as part of society and hold themselves responsible to wider issues of sustainability. Profit is no longer the primary motive for their existence.

- The higher standards organisations work to is reflected in their governance, which is inclusive and very diverse, reflecting the broad stakeholder base to which they hold themselves to account. This is also reflected in the fair and ethical relationships with employees, contractors and their entire supply chain.

- Organisations are constantly looking to technological innovations to address the bigger issues and invest long term in research to realise the potential of clean energy, no-waste manufacturing and so on.

- Human development will be a core success measure, and not just for employees. For example, they recognise that by investing in communities, they are building a brighter, more sustainable future for many more. The effect of increasing public goods such as knowledge-sharing, free education and lowering crime through directed corporate investments is the dominant purpose for the existence and success of these organisations.

- Workplaces do not deploy technology for performance surveillance as this erodes trust; instead, technology is used to develop their people and their potential for critical thinking and innovation.

- Diversity of ideas and thinking is embraced and nurtured.

- Leadership is diffused as roles encourage greater autonomy and accountability. The role of line management is reduced as individual accountability improves.

**Individuals**

- Individuals see that their identities are tied closely to that of society and possibly wider communities of interest globally.

- This scenario provides considerable challenge and opportunities for personal development. There is considerable choice in what, where and how each person’s talent and potential is directed. Driven by higher ideals and a sense of purpose, individuals will seek innovative opportunities to maintain the relevance of their knowledge and skills.

- Difference and diversity is celebrated. In a sense, this is a requirement as the interventions for good initiated by Singapore and Singaporeans are global.

- Work is no longer merely a means to a material end. Security is a given. The purpose of their organisation and the meaning they derive from being part of the organisation is more important. Many are motivated by social and altruistic reasons to find solutions to long-term problems – which are likely to be both sustainable and profitable in the long run. There is very high ownership of the issues of the day that need solutions.
4 Implications

‘Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution; it represents the wise choice of many alternatives – choice, not chance, determines your destiny.’

Aristotle

In this section, we present our reflections on the implications of the scenarios outlined in section 3.

While the scenarios present the possible visions of 2030, what is evident in each of them is the role of agency, the actions arising from individuals’ choices. Before the future is here, each of us will first make a series of choices, reacting to the current state of talent in Singapore either through state interventions, organisational policies on talent management, or individual behaviours and societal attitudes to learning, working and developing. Each one of these is a small step towards the future, paving the path towards one or another scenario.

The shape of talent in Singapore, therefore, is also a function of our own choice. More often than not, we react in ways that are familiar, applying our Weltanschauung, our worldview. We choose to accept the situation and adjust who we are to meet it (and/or the expectations of others), unsurprisingly arriving to predictable outcomes. Other times we question the premise on which the situation is presented and try to change or challenge that reality, and in so doing alter the future. Accepting or challenging the predominant paradigm reflects different levels of ‘maturity’ of the actor making that choice.

As the focus of this report is on talent, it would be remiss not to discuss how different levels of maturity can shape responses to any situation.

In Table 1, the four actors – the state, society, the organisation and the individual (notwithstanding the fair argument that it’s impossible to know the mind of an organisation, society or the state) – make very different choices at each level of maturity. At Level 1, the object is survival and having the bare minimum. At the individual level, it’s having some skill or usefulness to offer. At Level 2, there is more structure and attention to standards. And at Level 3, there is a concerted effort to develop common cause and a shared identity or identities. At Level 4, there is a drive to develop and improve. At level 5, we see a more sophisticated application of knowledge. At this level, the environment enables many to make original connections, where new ideas and innovation can flourish and insights are generated. A corollary is that failure is no longer stigmatised and seen as normal/usual. At Level 6 of the maturity model, embracing complexity and accepting difference are the principal features. It is at this level that a shift from ‘us’ and ‘them’ to ‘we’ begins. At Level 7, the actors have a grasp of the systems in play, a strong sense of identity, and values and vision to make a difference, and not just for those who are ‘in their tent’. Each actor can operate at any level and simultaneously at different levels of maturity depending on their reaction to the issue(s) under consideration.

The main features of the maturity model are outlined at each level in Table 1, providing an illustration of what operating within that paradigm would look like. There is a deliberate focus on people – their paradigms and their development – in the illustrations used throughout.
Table 1: Maturity model describing choices by four actors: state, society, an organisation and individuals

<table>
<thead>
<tr>
<th>Level of maturity</th>
<th>State*</th>
<th>Society*</th>
<th>Organisation*</th>
<th>Individual*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEVEL 7</strong> Visionary.</td>
<td>Leads on global issues for the long-term good of all. An exemplar of principled, inclusive governance. Willing to take tough decisions, while also forgiving of failibility.</td>
<td>Able to enact and live by espoused principles, especially when defending the rights, interests or dignity of others.</td>
<td>Assumes leadership in making long-term, difficult, sometimes immediately costly decisions for the long-term benefit of the whole.</td>
<td>Weighs up choices using ethical principles for the whole/greater good beyond the needs of oneself. Mastery of important externalities.</td>
</tr>
<tr>
<td><strong>LEVEL 6</strong> From ‘me’ to ‘we’.</td>
<td>Sees itself as a force for good. Appreciates the interests and cultures of other nations.</td>
<td>Sees itself and behaves as an integral part of society.</td>
<td>Sees oneself as part of something bigger and appreciates the validity of the other’s view. Appreciates and understands risks well.</td>
<td></td>
</tr>
<tr>
<td><strong>LEVEL 5</strong> Interconnectedness.</td>
<td>Applies innovative and creative approaches to address issues of the day. Human capital is one key resources to better, fulfilling lives for citizens.</td>
<td>Able to engage conceptually (vs. ’I am the measure of all knowledge/truths’). Creative, questioning and able to tackle sacred cows. High trust.</td>
<td>Openess to trying new thinking and ways of working. Takes risks. Failure does not result in censure. Confident.</td>
<td>Makes new connections and creates something new. Beginning to think ‘outside the box’.</td>
</tr>
<tr>
<td><strong>LEVEL 4</strong> Learning and developing.</td>
<td>Sees integrated development of human capital (education, skills, industrial master plan, and so on) strategically as national interest priorities.</td>
<td>Values learning of all kinds. The development of individual potential for own sake is important.</td>
<td>Nurtures a culture of learning both individually and corporately. Learning and development is encouraged and supported.</td>
<td>Aware of the need to develop potential and is constantly learning.</td>
</tr>
<tr>
<td><strong>LEVEL 3</strong> Belonging.</td>
<td>Has developed a national identity/mythology which all are encouraged to embrace.</td>
<td>Shows some respect and tolerance of the ‘other’. Embraces difference and bestows rights on minorities within comfort levels.</td>
<td>Supports social networks and communities reinforced by common values, functions, interests, and so on</td>
<td>Has ability to analyse situation and adapt response to achieve prescribed outcome.</td>
</tr>
<tr>
<td><strong>LEVEL 2</strong> Order.</td>
<td>Has functioning administration delivering public goods and infrastructure.</td>
<td>Establishes common rules of engagement and recognised authorities to lead and arbitrate.</td>
<td>Seeks consistency and predictability by setting up policies and procedures.</td>
<td>Able to apply those skills and knowledge under direction.</td>
</tr>
<tr>
<td><strong>LEVEL 1</strong> Survival.</td>
<td>Ensures that there are the bare necessities. Subsistence.</td>
<td>Caters to basic needs. Some security. Basic freedoms to go about one’s life.</td>
<td>Has basic administration to run a business. Adjusts where and when necessary.</td>
<td>Has knowledge and skill for the task at hand.</td>
</tr>
</tbody>
</table>
Compared with...

Scenario 1  
**Steady as she goes**

Scenario 2  
**No one is an island**

Scenario 3  
**Fortress Singapore**

Scenario 4  
**Bless thy neighbour**

State*  
Visionary leadership  
More skills development  
On high alert

Society*  
Tactical  
Survival

Organisation*  
Global

Individual*  
Adaptive  
Driven by higher purpose

*Acknowledging that the extent to which each unit of analysis has agency or holds a position on any issue is subject to context, and the influence of others.
So, which choices of the state, society, organisations and individuals does each of the four scenarios represent?

**Scenario 1: Steady as she goes**

*Steady as she goes* is the baseline scenario, where 2030 is recognisably a projection of the present. This is a future that results from current assumptions staying true about what talent is.

In this situation we see a blend of Level 4 and 5 choices. Academic achievement/brilliance is still the principal passport to social mobility, so there is a strong drive to develop one's potential as evidenced by more qualifications. But there are a minority who are innovating, creating new ideas and things. Once you've made the grade for academic excellence and assuming the benign environment of full employment, tight labour market and plentiful good jobs, there'll be the propensity for complacency, a sense of entitlement and risk-aversion in these individuals.

Society, being fairly conservative, operates between Levels 3 and 4, while the state contributes at Levels 3, 4 and 5, depending on the issues at hand. At one level this delivers a highly skilled, engaged and motivated workforce (albeit not fully supplied through the national talent pool), and at another, it is still discriminating against some minorities (for example LGBT, gender equality).

In Singaporean organisations the default management style is top–down, command and control, albeit with some autonomy within prescribed functions (Levels 3 and 4). At the same time, the world of entrepreneurship and many international MNCs, dominated by foreign investors and innovators, adopt different practices, and often a more inclusive management style (Levels 5 and 6). In terms of talent retention, there really isn't any change. The benign environment moderated by nimble policy interventions means that there is no reason for Singapore talent to alter their paradigm.

At these maturity levels (Levels 3–5), there is strong individual motivation to learn, improve and advance. Where working together furthers that objective, the agents derive the best outcomes: innovation, peer challenge and learning, and a willingness to take risks, accepting failure for the prize. But, the shift from individual interest to group interest is not embraced by all, and this is reflected in the paucity of any meaningful knowledge-sharing unless you are deemed ‘one of us’.

You can see that in this baseline scenario, there are alternative paths available. For instance, individuals could operate quite selfishly and refuse to work with anyone that isn't ‘us’ (this protectionist, ‘fearful of losing out’ mind-set is explored in a later scenario, *Fortress Singapore*). But, in *Steady as she goes* the actors simply choose not to challenge any of the prevailing assumptions. The social compact between the state, society and individuals remains intact. It is a secure, comfortable, largely paternal paradigm where each party sees value in maintaining their current role and maintaining the status quo.

**Scenario 2: No one is an island**

The constant change and threats to employability provide a strong motivation for constant learning and development by the individuals, similar to *Steady as she goes*. However, one of the casualties of focusing on more basic needs such as economic security is that you take fewer risks and deliver as directed. As the actors deem their situation too precarious, they see investment in innovative solutions as a luxury, and instead react with more defensive strategies, reinforcing strong social identities, based on existing norms and values. The default reaction to the situation in this scenario is, therefore, mainly in Levels 3 and 4, with very few progressive tactics at Level 5.

In *No one is an island*, the main theme is disintermediation. As the middle person is taken out of the equation, value chains are redrawn and new skills and ways of deriving value emerge. Examples of those leading disintermediation would be those offering peer-to-peer platforms for the exchange of ‘money’, information, anything that finds a market. And, while the traditionally valuable industries are cannibalised by new technologies and business models, there will be losers.

For those in transition, there is the ‘access economy’ (or ‘sharing economy’), which lifts barriers to employment, providing quick access to work assignments. This is a way of working that isn't especially attractive to the security-seeking Singaporean worker, but it has its advantages. The entry barriers are low and individuals can build a track record by applying transferable skills (for example data analytics) to a range of sectors and clients using platforms such as Mechanical Turk. The pay for such crowdsourced work is low.

In this evolving world, ‘talent’ is varied, valued, transient and unstable. It follows the value chain and is affected by the laws of demand and supply. Those who deliver high performance one day...
are tomorrow’s millionaires, entrepreneurs or unemployed. Traditional industries such as finance, logistics and energy, used to regarding talent as high performance, will experience lower demand for their skills. With technological disintermediation, the rewards are in ever fewer specialist roles which are not yet replaced by algorithms. The lucky few who won’t have to accept lower salaries and less favourable packages will be the super talents who are the ‘flavour of this season’ (see Mittal 2014). This will result in a recalibration of expectations and goals by individuals. In a situation where the skills in demand are in flux, the imperative is to pick up the signs early and to learn, evolve and adapt.

It is likely that this skills market will create primary allegiance to oneself and to one’s unique selling point rather than to one’s organisation(s). The individual is strongly motivated by employability and, in the face of an economy where there are few social safety nets, there is a lot of reliance on social networks, family and individual resilience (Level 3). In order to successfully transition from one employer to another, individuals will have to demonstrate a higher than normal propensity for risk and resourcefulness to retrain quickly (Level 4). In transition, there will be those who will choose to opt out, emigrate and withdraw, at least temporarily, from the job market – maybe to get another qualification, or maybe to move into a completely different field.

As a result of these shifts in the talent landscape, fairness is a concern in society and in organisations: fairness to those seeking redeployment; fairness to non-employees (an increasing number of whom work as contractors); fairness to older workers who reskill and encounter age discrimination; fairness when faced with high-performers who seek ‘star’ treatment in their packages; fairness to those facing falling standards of living and incomes; and fairness when faced with the difficulties of distinguishing genuine talent from those who say the right things to the right people at the right moment.

For organisations seeking to attract and retain such talent, HR develops sophisticated learning environments with strong social networking and community-building elements. This encourages strong relationships within the community. Employers run mentoring and reverse mentoring programmes to facilitate integration, flow of knowledge and expertise. The war for this talent is keen and companies are increasingly sophisticated in their approach, integrating investments in their employer brand and segmenting the workforce using behavioural data to develop offers that are salient. Flexible working and pay, performance-based bonuses and training courses supported by data and analytics are used to entice and to retain talented individuals. These are responses at Levels 4 and 5.

At the same time, in order to quickly fill the skills shortages in the growth sectors (for example education, data analysis, technology), companies search for and hire workers from elsewhere. Despite the huge campaigns on L&D schemes for Singaporeans, the shortages of specialists are so acute that organisations have bots scouring crowdsourcing sites (for example Mechanical Turk) for highly rated specialists, in a sense absolving corporates from the responsibility of serious investment in talent development. Under this situation, there is another potential cost: the loss of compassion and co-operation shaping views on privacy, ownership, consumption choices, work and leisure, careers and the quality of relationships (see Schwab 2016). This response is closer to Level 2 on the maturity scale.

For the state, the likely responses to the situation are at Level 4 – ensuring access to lifelong learning via a variety of routes (online, face-to-face, formal, informal, continuing professional development (CPD), non-discriminatory apprenticeships) and having the appropriate incentives (financing schemes, training funds, tax incentives, employer tax advantages for learning and development (L&D) schemes). At the same time, the precarious skills market will contribute to rising inequality, thus threatening unity. To mitigate this risk, the state may choose to respond at Level 3, creating pathways and safety nets for people in transition.

In this scenario, the state can also choose to operate at Level 5, of course, with the consent of the citizenry. The changes in the economy offer an opportunity to encourage a more mature social compact where citizens take on more responsibility for communal issues. Encouraging greater grassroots ownership provided through co-created solutions is one way of building resilience by addressing and rising above differences. For example, schemes such as flexicurity (ETUC 2007) or learning ‘passports’ could be chosen to encourage individuals to invest in their future over the course of their working life.

What is different from the baseline scenario is an accelerated shift to new business models made possible by technology and driven by efficiency and user preferences. The creative destruction of the intermediary affects the labour market by altering the skills in demand. Those who anticipated these shifts and are leading or ready for these new ways of working are likely to be the talent in demand.
While technology-led change is not new (see Mokyr 1990 and Lipsey et al 2005), the rapidity of change is disruptive and oftentimes takes most by surprise.

Another dimension to disintermediation is that the intangible value of some roles played by particular intermediators can be overlooked in the short term. Issues around security, quality assurance, marketplace transparency and user trust are just some intangibles that intermediators provide. As these new business models establish themselves, some form of regulation and/or assurance will follow.

In this scenario, the actors accept the situation as is and work within the boundaries of the dominant paradigm – one of ‘looking after number one’. In a situation where assumptions of the riskiness and long-term stability of a particular career path/sector is no longer as certain as it once was, the results of hard work and personal investment in a career may not be security and assured success. There are a few who use this opportunity to acquire new qualifications and skills but, with the risks of disintermediation affecting many in the ‘old’ world, the priorities are to look after my group, my family and myself, with little space or energy to shape a longer-term response to the future.

**Scenario 3: Fortress Singapore**

In *Fortress Singapore*, the country conscientiously strengthens its defensive capabilities to protect itself against physical, cyber, civil, political, economic and psychological attacks at home and in the region. These real (and perceived) threats encourage a fearful, protectionist culture, one that is suspicious of the ‘other’: certain foreigners; regional partners; some internal threats; interest groups; and so on. Although courteous, Fortress Singapore 2030 is not an especially tolerant society, and there are clear divides between ‘us’ and ‘them’. Here, the primary response is at Levels 2 and 3.

In 2030, Singapore is an exemplar of the smart island. Systems are connected and sensors provide a constant stream of data which allows for optimal functioning. Learning systems are programmed to look at patterns and recognise potential risks in order to self-correct. Developing these systems and Singapore’s defensive capabilities has required a focused investment in human capital. Together with Israel, the US, the UK and China, Singapore is a global leader in cyber-security, surveillance and counter-surveillance technologies.

This has spillover effects in the rest of the economy, and its key sectors, such as financial services, have some of the best security systems in the world. These networks enable myriad sources of data to be connected: CCTV data, tax, health, education, consumption patterns, communications records, and so on. With security paramount, little discussion on civil liberties and privacy has taken place. The vast majority are aware of the risk from cyber-attacks given Singapore’s highly networked infrastructure and accept the argument that these risks to e-commerce, e-networks and so on warrant a strong intelligence function.

The assurance by the state of common rules of engagement and recognised authorities to direct and make decisions is essential in mobilising the citizenry into a cadre of intelligence officers. The state is focused on building unity against unseen enemies (Level 3) and all the time fearful of chaos, hence the emphasis on order, obedience and sacrifice (Level 2). Surveillance and private data are constantly used by the state for profiling and intelligence-gathering.

For the individual, the situation offers several advantages. There is a sustained investment in security and a high demand for a range of specialists. Moreover, as loyalty and trustworthiness are central to maintaining secure systems, there is an undercurrent of suspicion, which is the norm against foreign specialists. Investment in national human capital is high and the demand is high. But it is the society where difference is an issue.

Operating at Level 3, at first society largely tolerates difference within its own comfort area, that is, it won’t be questioning its biases. As people are called on to be the eyes and ears of the state to counter terrorism activity, the extent of surveillance is normalised. So, where there is a paucity of information, the narrative is made up. These stories affect the psychological defences built up over the years as more and more question the argument that privacy is a luxury Singapore can ill afford.

But, there is a growing discomfort in a minority, who believe the state has got the balance wrong. They organise to demand greater rights of (online) privacy and this raises the spectre of an Edward Snowden moment. This tension plays into the resilience required to maintain Singapore’s defence – unquestioned access to personal data by the state or stronger privacy requirements? Which will serve Singapore better in the longer term (Levels 5 and 6)?

Organisations, working to support the nation’s defences, require both a respect for a hierarchical chain of command and leadership through the ranks. This is reflected in management approaches...
that are more consensual, with considerable day-to-day discretion. Flexible working is the norm. Organisations have fewer layers of command. Despite this apparent freedom, workers are subject to digital surveillance; their performance and productivity is carefully monitored. Employees are now familiar with the regular collection of data and measurement using a slew of metrics. This provides insights on the workforce, transforming the recruitment, assessment, performance management and L&D functions, for instance, but there are limits to the power and accuracy of the diagnostic capability. The link to business outcomes is clearer. Data analytics and risk management become core competencies of the profession in 2030.

Bigger amounts of data, however, have not proven to be a panacea to organisational issues on performance and talent management, but it is an improvement. Because all these developments were driven by business needs, very little attention has been paid to the ethical questions – whether employees have a right to their own data, who can analyse that data and whether there are any limits to the organisation’s use of personal information. Operating at a Level 5 systems innovation level, the situation is driven by the imperatives of order at Level 2. For instance, there is suspicion that the use of profiling may have resulted in unfair assessments on individual ability, motivation and rewards, and claims of such (un)intentional misjudgements are actively circulating, souring relationships with Singapore’s neighbours and providing fodder for stories of discrimination of nationals perceived as not conforming to the narrow norms of the day.

The irony of the talent paradigm in Fortress Singapore is that, while the likely choices of the actors are protectionist (Level 2), the technology is very advanced and has far-reaching consequences that can really only be appreciated at Level 5 and beyond. Indeed, the debates on surveillance and profiling using metadata have highlighted errors. One reaction may be a conscious choice by organisations to decrease use of surveillance and focus on building a culture of trust, favouring face-to-face interaction and sharing ideas in person. Similarly, individuals can opt to go offline to preserve some small area of personal privacy. A constant trickle of talented emigrants will be seeking to escape the heightened tensions of Fortress Singapore in search of ‘a simpler life’.

In this scenario, we can see how motivation alters the future. Compared with the baseline scenario Steady as she goes, the higher insecurity and fear of the other brings with it protectionism, tribalism and threatens national identity.

Scenario 4: Bless thy neighbour

In this scenario, Singapore has a global big-picture ‘we are in this together’ paradigm. Here we see a marked difference in the reaction to the situation. In both Fortress Singapore and Bless thy neighbour, there are external threats. However, in Fortress Singapore, we saw the effects of responding to the challenge at maturity Levels 2 and 3. In contrast, in this scenario the leadership of Singapore sees itself as a force for good – not just for its people, but for a wider constituency of humanity, with no immediate or obvious short-term benefit. It is able to transcend the ‘us’ and ‘them’ paradigm. Without detracting from the truly impressive progress to date, this scenario represents a choice to shift to a visionary, global paradigm that unlocks the potential of human capital to shape the future, not just for ‘us’ but for all.

The ability of the various actors – the state, society, organisations and individuals – to operate at Level 7 reflects certain givens. The first is that security and survival are no longer the prime consideration. The economy is doing well and Singapore is at the top of the food chain. This affords the space to consider what Singapore’s role is in the world and for individuals to consider what meaning they derive from their endeavours. The stability offers an opportunity to apply a different mind-set – one that is more concerned about the collective, the long-term sustainable vision for all, and, more strategically, the shape of that future.

Another driver is the change of leadership in Singapore, adopting an outward view and encouraging a big-picture approach. The traditional role of Singaporean leaders is disrupted as they are encouraged to move out and engage across the region. The younger generations are more accepting of this approach and are eager to engage, creating a generational divide.

At the individual level, this shift in paradigm has been slow in coming, but there were clues in the local trends. Singaporeans have become increasingly conscious of the impact of their behaviour on the environment. They acknowledge their role as guardians of the planet for the next generation rather than exploiters of natural resources for this. Its citizens engaged with the climate change debate and sought to move towards even more ambitious decarbonisation targets than under COP21. This is just one example of popular engagement with the big issues of the day.

Organisations operating in Levels 6 and 7 see themselves as an integral part of society and
hold themselves accountable to a wide number of stakeholders. Their *raison d’être* is not just profit but delivering sustainable value to society. Companies are concerned not just with developing employees for tasks at hand, but see value in human development, realising that investments in communities that they touch is the only way they build viable, successful societies who can in turn generate further value to more people.

The transition has been encouraged by the state. Freedom of expression and civil liberties were strengthened in the 15 years to 2030. This signalled trust in the growing maturity of the citizenry to debate the issues of the day. This also signalled a confidence in government of their track record and the willingness to accept that the next stage in Singapore’s human development required the engagement of everyone, ownership of the issues and an acceptance of higher risk and the possibility of failure in this frontier space.

The state retains its role as the honest broker while the diversity of voices and interests shape and deliver on that global vision. A proponent and user of futures research where many externalities are modelled and explored, Singapore finally realises its potential in effecting systemic change. The leadership successfully applies the tools to address inefficiencies and to build ecosystems supporting innovation, learning and a higher quality of life.

Compared with the baseline Steady as she goes, *No one is an island* and *Fortress Singapore*, this scenario reflects an expansive worldview. The actors here recognise that their decisions, like ripples in a pond, affect many others across time and geographies. Choices now affect generations yet unborn as we have witnessed in the climate change debates. But in addition to taking on more externalities into account when making decisions, such as long-term impact, sustainability, intergenerational fairness and so on, there is a profound shift in identity. The citizen here sees that they have a responsibility and a role far larger than that of building the Singapore nation; it is a recognition of a common humanity and a vision of that common future. This is a rare leadership, one that has the potential to be transformative, changing the status quo and altering the frames of reference for what is possible.

The leadership paradigms reflected in each scenario are different. Each is merely an honest response to a particular reality. As we said, perception is reality, and even in *Bless thy neighbour*, multiple views will co-exist. No one paradigm is better or worse than the next. It reflects the zeitgeist, the concerns and the realities of the moment. It is often difficult to see beyond the immediate realities that there are other choices – choices that, however, require vision and courage.

This scenario challenges the default choices that Singapore and its citizens have made in the past. Those choices are valid, reflecting a history of hard-won freedoms and economic success, a strategy that has served the nation well. Whether *Bless thy neighbour* will be as successful is unknown, but that is not the question – it is merely the right thing to do.
Through the various scenarios we were able to reflect on the maturity dimension of choice. In the first three scenarios, the choice was to learn, evolve and adapt to the situations and for talent to deliver to a high level. Applying that paradigm, we can see that across all the scenarios, there are recurring themes:

1 **Evolution of the state**

The state is an important actor in this story and, in all four scenarios, its leadership is evident. The expectations of it, however, shift from the stable and predictable, to protector, to visionary leader. As Singapore’s population ages and the limits of immigration are reached, the challenge of maintaining economic growth will become more acute and there will be questions about social mobility, income inequality, diversity, current models of governance that are so centralised, the boundaries between personal privacy and state surveillance and civil liberties. Whatever the future brings, the compact between state and citizen will have to be negotiated, with implications for the role of organisations and the nature of Singapore society. For example, the old-age dependency ratio – the percentage of working age population compared with those 65 and above – has fallen steadily from 13.5 in 1970 to less than 6 in 2015 (Statistics Singapore 2015) and this will affect that compact. There will be discussions about the social safety net provided by the state and the setting of a minimum/living wage if income inequality persists and entry-level hourly wages stagnate. The growing diversity of the resident population will also contribute to changes in the expectation of the state. The tensions between the socially conservative majority and the more liberal minority will be another arena where the state will have to mediate. In all, the maintenance of trust in the state as arbiter of good governance – custodian of private data, economic stewardship and protector – will determine the tactical choices of the various actors in shaping the future of that compact.

2 **Power and ethics**

While the notion of talent is instrumental – it is deployed for some recognised gain – the fact that it involves bright, articulate human beings means that the issue of rights and ethics is never far away. Data privacy is one example. The use of data to measure and profile has brought great strides to the science of management, but when data privacy and its use are not clearly limited, there will be concerns about the improper use of personal data. The synthesis, analysis and inferences from data analysis are subject to bias and human error. The balance between the interests of the state (security and strategic workforce planning), the organisation (insight into the workforce so as to inform investments in L&D, talent development, performance management, retention and reward), and the individual (privacy, transparency, protections from improper use of personal data) needs to be better defined in a networked data-determined world.

Increasingly, questions of civil liberties – freedom of expression, the right to be consulted when decisions affect you, and so on – will emerge. This, we believe, is part of the maturation of the social compact between state and citizen.

For the state, a constant concern is national security. And this focuses the dilemma. If you want to engage the citizenry to a common cause, de-prioritising civil liberties when they are important to a significant segment of your talent pool has the opposite effect. It signals an adult–child relationship, one driven by paternalism rather than trust and respect between equals. A sustainable total defence capability requires an adult relationship, one that is built on negotiation, compromise and recognition that nothing is failsafe, that some level of give is necessary. Indeed, *No one is an island* suggests that the state apparatus alone is incapable of delivering security on all fronts simultaneously. It requires the engagement of the citizenry.

This is replicated at the organisation and individual levels. An openness about the tensions and dilemmas inherent in the workplace and a clear ethical framework must be part of the role of leaders and professional managers. This is an integral part of managing talent in the twenty-first century (see Clark 2015).

For organisations, their resilience to some of the challenges posed in the alternative futures will depend on their ability to attract, retain and develop talent: talent that can scan, analyse and respond to signals...
that can threaten or open new opportunities or both; talent that knows how to weigh up externalities when making decisions, that has the steel for risk and the skills to lead. If these are qualities that matter to your business, here is an opportunity to reimagine your vision and your employer brand.

For individuals, resilience means broadening the base beyond academic excellence. Understandably at this stage of maturity, the focus remains on this as the principal proxy indicator of talent. There is already evidence that more and more Singaporeans are trying paths less tested, taking on global issues and becoming more engaged as global citizens. From the maturity perspective, this bodes well for the nation.

The last scenario, Bless thy neighbour, was introduced to illustrate the significance of maturity in making choices and the dominance of instrumentality in the discourse of talent. Throughout, we can see that an unquestioned reporting of ‘talent’ means that much of what we have to say about talent is really about its usefulness in delivering recognisable value. There is huge value in the kind of leadership that works in a predictable, steady-state environment to deliver recognisable outcomes. What is less common is the ability to anticipate disruptions and lead in a crisis while still holding the long-view. It is this dimension that the scenarios and the maturity model seek to highlight. There is opportunity for organisations and individuals/society to increase their resilience. How do paradigms limit our options and at what cost to our future?

3 Questions of fairness (see Sparrow et al 2013)

Singapore is likely to face transitions that hurt individual talent. As old jobs are destroyed and new ones emerge, individuals will be forced to be resourceful and to seek out other opportunities for their skills or to re-skill. In these transitions, where is the burden-sharing? Will it always be the individual that pays the price of such structural changes? While most will see the creative destruction of certain jobs as a necessary part of Singapore’s evolution, there are questions as to the support (psychological as well as financial) during this period if the goal is a highly skilled workforce. Fairness also emerges around issues of diversity, (un)conscious bias, that is, discrimination, access to opportunities, and gaming the system by the educated elite (for example to get into the best schools). Meritocracy has been used as an argument to fend off claims of unfairness, but the slow steady rise in wealth inequality and fall in social mobility via trusted academic routes is a growing concern of the masses.

4 Talent mobility

In all the scenarios, it is clear that Singapore in 2030 will still be heavily reliant on foreign talent. There are the predictable risks to Singapore’s imported talent pipeline as the region itself develops and retains more of its home-grown talent. While Singapore remains an attractive destination for talent and many have chosen to stay, this cannot be assumed.

As we’ve witnessed in recent history, the reliance on a large pool of foreign talent to sustain Singapore’s economic growth brings socio-political costs. How discrimination, diversity and xenophobia – that is, Singaporean regard for ‘otherness’ – are handled matter to the long-term brand of Singapore being a welcoming destination for global talent. It also matters as Singapore invests in and deploys its people abroad (and their brand in those host countries). In a world where Singaporeans continue to regard imported talent as the ‘other’, there is less incentive for integration, which is a wasted opportunity.

The retention and engagement of local talent is another dimension to talent mobility. While international exposure and experience is vital to sharpening talent, Singapore’s ability to embrace diversity and the diverse needs of its resident population while cultivating a mature, inclusive national identity or identities is important to the retention of that talent. We saw this in Singapore’s 50th anniversary celebrations in 2015 and the significance of developing the mythologies around national identity. In an increasingly intense competition for talent regionally and globally, Singapore will have to work harder so that more will choose to resist the ‘greener pastures’ elsewhere and stay.

5 Knowledge and skills obsolescence

Singapore’s investment in human capital is impressive. In maintaining the relevance and standards of the nation’s skills base, a challenge will be to maintain a robust yet diverse learning ecosystem, a culture (indeed a hunger) for learning and the means for individuals to reasonably access all these learning opportunities. Part of maintaining the knowledge stock for possible application and innovation is the capture and sharing of knowledge that may not be immediately applied but is potentially useful in stimulating innovations in unanticipated ways. A culture of knowledge-sharing and minimising the knowledge-is-power mind-set is important to building a national culture of learning.
Aristotle, quoted in section 4, reminds us that excellence is a function of high intention, sincere effort and intelligent execution – all of which have been amply demonstrated in Singapore’s economic success story. But all these turn on making the wise choice at each fork in the road. We hope that by introducing the maturity scale, another dimension to talent is highlighted. After all, what is talent if not the ability to make the right choices, at the right time, for the right reasons?

**Final word**

As we close, perhaps we can return to some questions to further this discussion:

- In addition to the technical capability we require of talent for the economy, what other contributions or qualities of talent do we desire for Singapore? What do we need for resilience? What are we prepared to do to achieve the vision of a socio-politically mature nation in 2030?

- What ethical issues are raised when we treat talent as an input factor? What do we lose as a society if we downplay their humanity and focus only on what they can deliver in the short term? Where do we place their needs and aspirations?

- In a complex, interrelated world that is unlikely to become more secure, is our present understanding of talent adequate? What are the consequences of admitting more diverse categories as talent? What is the price of excluding talent because they don’t fit in with current norms? How open and aware, for instance, are we on diversity, discrimination and bias?
Appendices

Appendix 1: Methodology

*Future of Talent in Singapore* uses the Delphi technique (Helmer 1967), trend analysis and scenario-building (Kahane 2012; Schwartz 1996, 2011). These are futures methodologies (see Glenn and Gordon 2009) regularly used by organisations and state agencies for strategic planning, risk management and leadership development. These methodologies provide a ‘scaffold’ for managers to explore alternative futures and issues beyond those that dominate the day-to-day. Some of the more familiar futures methodologies include:

- **Back-casting** – where planners work back from a specific future date in order to identify and assess the journeys and milestones required to achieve a specific end state; or to establish the viability of this end state within the time and resources available. This is similar to road-mapping, which is used in central planning to ascertain what needs to happen to achieve a particular end state, for example building high-speed broadband to enable e-commerce to flourish.

- **Horizon-scanning** – which examines trends and developments that are likely to happen in the near and medium term. Structured business intelligence-gathering and analysis for risk and opportunity is one form of horizon-scanning.

- **Delphi technique** – where a panel of experts with heterogeneous domain knowledge relevant to the issue of talent is interrogated iteratively to get a broad consensus on the main drivers affecting the shaping of the issue within a defined timeframe. In this study, after the initial questionnaire, there were three iterations.

- **Scenario-building** – scenarios are internally consistent alternative takes on a particular point in the future. In this study, the Delphi drivers and a selection of trends were synthetically assembled into four scenarios: one baseline scenario and three alternatives. It’s important to note that these scenarios are not predictions, but serve to shift the thinking beyond ‘what is’ to ‘what if’.

- **Trend analysis** – involves analysing and projecting past trends into anticipated futures. The CIPD publishes a series called *Megatrends*, which looks at trends that shape work, the workplace and the workforce generally.

Headline Delphi questions in *Future of Talent in Singapore*:

1. How is ‘talent’ understood in Singapore?
2. What are the most significant factors shaping the understanding of ‘talent’?
3. What are the drivers shaping the understanding of talent in the next 15 years?

The Delphi exercise starts with shaping and piloting a series of broad questions to establish the appropriate breadth and depth of the issues to be explored with the panel of experts over the three iterations. After each iteration, the inputs are coded and respective positions weighted statistically.

Academics and professionals with diverse backgrounds were invited. Forty-two confirmed and, during the exercise, a total of thirty experts participated. The roll-call of all the participating experts and their brief biographies are presented in Appendix 2.

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**Figure 2: Timeline**

- **Questionnaire**: 3–13 Aug
- **Iteration 1**: 28 Sept – 4 Oct
- **Iteration 2**: 19–25 Oct
- **Iteration 3**: 9–15 Nov

**Drivers of change and scenario-building**
Appendix 2: Experts’ biographies

Sumarleki AMJAH, Managing Director (South and South East Asia), World Kitchen LLC

Mr Amjah has over 20 years of strategic marketing, brand management and sales experience. He is currently the Managing Director of World Kitchen LLC covering Southeast Asia and South Asia. Previously, he has worked at Processed Food Business (Asia ex-China), Del Monte Pacific Limited, Del Monte Foods India, Sime Darby Berhad and Prudential Plc in Singapore.

Lina BAECHTIGER, Executive Director, European Chamber of Commerce

Ms Baechtiger joined EuroCham in 2012 as Committee and Membership Manager before being promoted to Executive Director in January 2015. She is currently spearheading the HR in ASEAN White Paper that aims to outline opportunities and priorities for human development in ASEAN. Prior to joining the Chamber, Lina worked with the Swatch Group and at the Ecole Hôtelière de Lausanne.

Magnus BÖCKER, Former CEO, Singapore Exchange (SGX)

Mr Böcker was the CEO of the Singapore Exchange from 2009–2015, and previously the President of Nasdaq. He spearheaded the creation of OMX, the Nordic exchange and technology group, and served in various capacities before he became CEO of OMX in 2003. Mr Böcker is a member of the Shanghai International Financial Advisory Council, Sim Kee Boon Institute for Financial Economics, Diversity Action Committee and the Bandra Kurla Complex International Financial Services Centre in Mumbai.

CHAN Lee Mun, Chief Skills Officer, Workforce Development Agency (WDA)

Mr Chan is Chief Skills Officer at the Workplace Development Agency. Prior to this he was Principal and CEO of Nanyang Polytechnic (2007–2015). He was Co-Chairman of the ASPIRE Review Committee on ‘Strengthening Research, Innovation & Enterprise’ (2014). He is a Chartered Engineer, and a Fellow of the Institution of Engineers in Singapore (FIES). Mr Chan Lee Mun holds an MA (Education) from Stanford University and a Master of Engineering from NUS.

Wilson CHAY, Senior Manager, Talent, Learning & Development at a government agency

Mr Chay has been a training and development and HR professional since 1991. His career spans across many industries, such as manufacturing, education, IT, infocomm, retail, hotels and real estate in HR and training roles, at the middle management level. His area of expertise is in cross-cultural communications and diversity.

CHONG Teng Sheng, Former Senior Assistant Director, Future & Readiness Division, Ministry of the Environment and Water Resources (MEWR)

Mr Chong is currently reading an MSc degree in Sustainable Urbanism at The Bartlett School of Planning, University College London (UCL), UK before his next appointment within the Singapore Civil Service. Prior to MEWR, he was Senior Manager (Energy Efficiency and Conservation department) at the National Environment Agency. Mr Chong graduated from Kyoto University with a Bachelor of Engineering, School of Global Engineering.

Adrian CHUA, Divisional Director, Manpower Planning and Policy Division, Singapore Ministry of Manpower

Mr Chua is responsible for leading on manpower planning and labour market policies. He also oversees the economic research and statistical departments. He is a board member of the Singapore Workforce Development Agency. He was previously Executive Director (Strategic Planning and Communications Department) and Executive Director (Prudential Policy Department) at the Monetary Authority of Singapore. He also served as a member of the Executive Board of the International Monetary Fund (2008–2010). Adrian graduated from Harvard University with a Master’s in Public Policy.

CHUA Beng Huat, Provost’s Chair Professor, Faculty of Arts and Social Sciences, National University of Singapore (NUS)

Dr Chua is also Cluster Leader of the Cultural Studies in Asia at the Asia Research Institute. Formerly, he was convenor for the Cultural Studies programmes and Head of the Department of Sociology (NUS). He is founding co-executive editor of the journal Inter-Asia Cultural Studies. Currently, he is Chairman, Board of Trustees, Visual Arts at Temenggong and on the advisory board of the 2016 Singapore Biennale. His research areas include: comparative politics of SE Asia; Singapore politics; cultural studies in Asia and consumerism. Dr Chua received his PhD from York University, Canada.
Arnoud DE MEYER, President, Singapore Management University (SMU)

Prior to SMU, De Meyer was Professor of Management Studies at the University of Cambridge, UK and Director of Judge Business School. He had a 23-year association with INSEAD and was the founding Dean of their Asia campus in Singapore. He is currently a board member of the National Research Foundation (Singapore), Temasek Management Services, Singapore Symphonia Company Limited and Dassault Systemes, France. His research interests are in the area of technology management.

Fermin DIEZ, CCP, SPHR, Deputy CEO, National Council for Social Service

Mr Diez is also Adjunct Professor at both Singapore Management University (SMU) and Nanyang Technological University (NTU). His current area of research is the comparative effectiveness of various pay schemes. He is on the board of Taylor’s Education Group and Jurong Health. Mr Diez obtained his MBA from the University of Pennsylvania and his undergraduate degree (Psychology) from the University of Michigan.

Judith FERGIN, Executive Director, the American Chamber of Commerce in Singapore

Judith has been AmCham’s Executive Director since 2013. She was formerly the US Ambassador to Timor-Leste. A career Foreign Service Officer, she has served in Australia, Singapore, and Indonesia. She has a BA from Smith College, an MA (International Relations) from the University of Virginia, and an MSc (National Resource Management) from the National Defense University.

Douglas FOO, Founder & Executive Chairman, Sakae Holdings Ltd

Mr Foo has led the growth and development of the Group and established over 100 outlets across Singapore, China, India, Indonesia, Malaysia, the Philippines, Thailand, Vietnam, USA and Japan. Mr Foo serves as director on numerous boards for corporate, governmental and non-profit organisations. He holds a Bachelor Degree in Business Administration (Finance) from the Royal Melbourne Institute of Technology.

Richard HARTUNG, Managing Director, Transcarta; Freelance writer for Today and other publications

In 2002, Richard set up Transcarta to assist financial institutions with retail banking and payments strategy, training, risk management, market entry research and other business practices. He is head of content at EFMA, and a freelance writer for Today, gtnews, OOSKAnews and corporate publications. Richard has a BA from Pomona College and an MBA from Stanford University.

Rick KOH Buck Song, CEO, Integrative CSR Consulting; author and consultant

Rick’s expertise is in brand-building, and advisory work in media and strategic communications and corporate social responsibility. Previous roles include: Head of Global Media Relations, Communications and Strategic Planning at the Singapore Economic Development Board; and Head, Public Affairs (SEA) at Hill & Knowlton. He leads the social movement ‘Ageless in Singapore’. Among his numerous publications is Brand Singapore (2011) and Learning for Life (2014).

LAU Yin Cheng, Cluster Director HR & OD, Infocomm Development Authority of Singapore

Mr Lau is Cluster Director HR & OD at Singapore’s Infocomm Development Authority. He is also part of IDA’s Senior Leadership Team. Formerly, he was CHRO at the Ascott Group, CHRO and VP of Strategic Development of SembCorp Logistics. Mr Lau enjoys spending his spare time coaching professionals.

Ben LEONG, Associate Professor, School of Computing, National University of Singapore (NUS)

Dr Leong is also Director, Experimental Systems and Technology Laboratory at the Ministry of Education. Dr Leong received his S.B., M.Eng. and Ph.D. degrees from the Massachusetts Institute of Technology (MIT) in 1997, 1997 and 2006 respectively. His research interests are in the areas of Computer Networking and Distributed Systems.

Adeline LIM Jiayu, Former President, Singapore Management University Students’ Association (SMUSA)

Ms Lim was President of the SMU Students’ Association Council & Executive Committee in 2015.

Linda LIM, Professor of Strategy, University of Michigan’s Ross School of Business

Professor Lim has served on the boards of two US public companies in tech manufacturing with extensive operations in Asia, including China and Singapore. Her research interests include: international
trade and investment, labour and industrial policy, and multinational and local business in Asia. She holds degrees in economics from the Universities of Cambridge (BA), Yale (MA) and Michigan (PhD).

**Sim S. Lim**, Group Executive and Singapore Country Head, the Development Bank of Singapore (DBS)

Mr Lim is also the Chairman of DBS Vickers Securities Holdings Pte Ltd. He is Alternate Member for DBS to the Association of Banks in Singapore; Board Director of ST Engineering; Chairman of ST Aerospace; Board Governor for Nanyang Polytechnic. He was appointed Chairman of Singapore Land Authority in Singapore (2014). He holds a BBA from Yokohama National University.

**LOW Peck Kem**, Chief HR Officer, Public Service Division, Prime Minister’s Office

Ms Low is responsible for professionalising HR in 16 Ministries and 65 Statutory Boards. Previous roles include Senior Director for HR, OD, Legal, Audit & Facilities for the Global Alliance for Improved Nutrition (GAIN), Geneva; and Divisional Director, HR at Ministry of Manpower. She started her career in the hi-tech industries (Tandon, Western Digital, Hewlett Packard, Agilent Technologies & Avago Technologies) in roles ranging from Quality Engineer and Manufacturing Manager to VP Human Resources.

**Victor Mills**, Chief Executive, Singapore International Chamber of Commerce (SICC)

Victor has 30 years of organisational and professional experience in the financial services industry. He worked as expatriate generalist for ten years, and served as specialist in institutional banking at the Singapore branch of the former Republic National Bank (Republic) of New York. Mr Mills is a Northern Ireland born Singaporean. He holds a BA (Hons) degree in History from the New University of Ulster, UK and an MA (Area Studies) from the University of London, UK

**Ariel Muller**, Director Asia-Pacific, Forum for the Future

Ariel has over ten years’ experience using futures techniques with leadership teams to integrate environmental and social considerations into everyday business practices. Forum is an independent non-profit working globally with business, government and other organisations to solve complex sustainability challenges. Previously, she worked for the Helsinki Group (a collaborative strategy and design firm) and at Saatchi and Saatchi. She has designed and delivered sustainability programmes to Wal-Mart, NBC Universal, Duke Energy and Procter & Gamble. Ariel was also Adjunct Faculty at Parson’s New School.

**David NG**, Associate Professor, Policy & Leadership Studies, National Institute of Education (NIE)

Prior to his current post, Dr Ng was Associate Dean for Leadership at NIE. He is also the author of the book, ‘Change Leadership’. His areas of specialisation include: principalship, school leadership, curriculum management and leadership, and learning technology, such as computer simulation programming, intelligent tutoring system design and programming. He read his doctorate of education at Peabody College of Vanderbilt University, USA.

**OOI Kee Beng**, Deputy Director, ISEAS – Yusof Ishak Institute (formerly Institute of Southeast Asian Studies)

Prior to ISEAS, he was a Lecturer at the Department of Oriental Languages at Stockholm University, Adjunct Associate Professor at the Southeast Asia Studies Department of National University of Singapore, and visiting Associate Professor at the City University of Hong Kong. Dr Ooi is a columnist for *The Edge Weekly* (Malaysia), and is Founder-Editor of *ISEAS Perspective* and Penang Institute’s *Penang Monthly*.

**Stephen Pennicott**, General Manager (Human Resources), Swire Group

Stephen Pennicott is the General Manager, Leadership Consulting at Swire. Stephen has been working in leadership development and talent management for over 30 years, predominantly in Asia Pacific. His current focus is on executive education, succession and HR capability development. He lives in Singapore with his partner, their two children and the family dog.

**Samuel Seow**, Managing Director, Samuel Seow Law Corporation (SSLC)

Samuel is the founder of SSLC, which has been ranked as one of the top media legal practices in the Asia Pacific Legal 500. He is also Foreign Legal Advisor to Seow & Associates, Malaysia. Samuel’s expertise is in the field of intellectual property law and general commercial law, especially in the media sector. Samuel received the Spirit of Enterprise Award (2010). A lover of the arts, Samuel also takes pride that the National Arts Council has recognised SSLC as Distinguished Patron of the Arts for consecutive years.
Gary SUACO, Resource Director at CSC Computer Sciences Pte Ltd

TAN Sor Hoon, Associate Professor, Philosophy Department, National University of Singapore (NUS)

At NUS, Dr Tan has served as Assistant Dean of the Faculty of Arts and Social Sciences, Deputy Director of Asia Research Institute, and Head of the Philosophy Department. She has published a monograph, *confucian democracy*, several papers in chinese philosophy, comparative philosophy, american pragmatism and political philosophy. She is on the editorial boards of *Dao: A Journal of Comparative Philosophy*, *Contemporary Chinese Thought*, *Comparative and Continental Philosophy Circle*, and *Contemporary Pragmatism*.

TAN Kwang Cheak, Director, HR & Talent Management, Ministry of Health, Singapore

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