Navigating by the Stars: Using Futures Methodologies to Create a Preferred Vision for the Workforce, a Case Study

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Abstract

This case study demonstrates how futures methodologies led to a strategic change in a Human Resources (HR) function, and brought about a transformation in the working relationship between two disparate groups of HR professionals. The program of three one-day workshops was based on the Six Pillars of Futures Studies (Inayatullah, 2007), and structured around the specific methodology of the Futures Landscape. Other futures methodologies used to design segments of the workshop series included: Environmental Scanning, Shared History, the Futures S-Curve, Scenarios, Visioning, Causal Layered Analysis, and Backcasting.

Keywords: six pillars, futures studies, futures landscape, environmental scanning, shared history, futures s-curve, emerging issues analysis, scenarios, visioning, causal layered analysis, backcasting, human resources, strategic planning

This case study describes the application of futures methodologies to elicit a transformational change in the long-range strategy and short-term directions of a Human Resource (HR) management function. The program of three one-day workshops, which was developed and run by the author, a Human Resources Strategist, was based on the Six Pillars of Futures Studies (Inayatullah, 2007), and structured using the Futures Landscape. The series was also a catalyst for significant improvements in the working relationships between Corporate HR professionals and Divisional HR professionals. As one participant commented, "it had a profound effect, like a curtain being lifted (to reveal) the huge leap we had to make ... we realised we couldn't just continue doing what we were doing."

The Six Pillars are Mapping, Anticipating, Timing, Deepening, Creating Alternatives, and Transforming. Specific methodologies, which were used to design segments of the workshop series, were Environmental Scanning, Shared History, the Futures S-Curve, Scenarios, Visioning, Causal Layered Analysis, and Backcasting.

The Futures Landscape, which is one of the Mapping tools, helps us understand where the organisation is and where it is going, based on four metaphors. The Stars represent the long-range future or vision for the organisation; mountains represent the medium-term future or big picture; the jungle represents the day-to-day survival needed to deal with the present; and pathways represent the strategies necessary to progress from the present to a desired future. Table 1 shows an outline of the methodologies used to develop the series.

Table 1

Outline of "Navigating by the Stars" futures workshop series

Workshop	Six Pillars	Futures Methodologies
Preparation Phase	Mapping Anticipating	Environmental Scanning Futures Landscape
1. Navigating by the Stars	Mapping Anticipating Timing Creating Alternatives	Shared History Futures S-Curve Scenarios Visioning
2. Which Mountains	Deepening Transforming	Causal Layered Analysis Backcasting
3. Choosing our Path	Completed the Mapping	Used traditional planning techniques - Where, Now, How

Background

The City Council, which is the focus of this case study, is a large local government organisation, employing in excess of 8000 staff across nine Divisions. The Council is responsible for the day-to-day running of a city of one million residents, providing such services as supply of potable water, sewerage treatment, public transport, local road networks, community services such as public libraries, well-maintained parklands, and ensuring compliance with the local laws which govern such matters as public health, urban planning and development. The city is located in a desirable sub-tropical location, which has experienced unprecedented population growth, predominantly due to migration from the Southern states of Australia, and recent overseas immigration from countries in the Asia-Pacific and Middle East.

The Council is currently implementing an ambitious twenty-year plan to transform the city into a vibrant place to live and work, while maintaining its reputation of easy-going friendliness, accessibility and sub-tropical lushness. However with such rapid population growth, the Council is also grappling with issues such as reduced housing affordability, increased traffic congestion, and stretched water resources.

The Brief

The Human Resources (HR) function, consisting of approximately one hundred HR specialist and generalist practitioners, is responsible for ensuring the organisation has a workforce with the right capability, skills and flexibility to deliver both the long-term plan for the city and also the ongoing day-to-day services for residents.

Whilst HR function had been operating under a strategic plan of its own, a change of political leadership refocused the Council's priorities from community development to infrastructure construction. The existing HR strategy focused strongly on learning and development, equity and diversity, community employment programs and workplace safety. It was apparent to the HR Manager that there was a looming mismatch between the existing HR strategic plan and the staffing needs of the organisation. There was also a relationship chasm between the centrally-sited Corporate HR professionals, and the Divisional HR professionals who operated from various workplaces across the city. They dealt with different HR issues and had different ways of working, for example the Divisional HR group delivered day-to-day advice to workers and their managers, whilst Corporate HR focused on delivering organisational improvement projects. Each group tended to operate in isolation and blamed the other for undermining their work.

The author was engaged to raise awareness about the situation, challenge existing beliefs, relationships and processes, and align the strategic direction of the HR function to the new twenty-year plan for the city. The workshop series was designed to appeal to both the hearts and minds of participants. Specific deliverables were:

- produce an aspirational HR strategic plan, which would be used to communicate the long-range strategic direction and provide a basis for planning the short-term HR program (minds)
- to assist key HR practitioners achieve an emotional connection with a new strategic direction and gain their commitment to deliver on the new direction as one team (hearts).

The Futures Workshop Series

Preparation

In terms of the Six Pillars, the Preparation Phase included the specific futures methodologies of Environmental Scanning and the Futures Landscape. The Preparation Phase provided the information to help participants identify and understand major workforce issues and trends, so that the workshops might produce well-framed, thoughtful decisions and outcomes.

Environmental Scanning

Environmental Scanning for the HR workshop series built onto scanning that had already been done in developing the Council's twenty-year plan for the city. Material was gathered from a variety of sources, including economic, demographic and trend reports; articles and data published on the Internet by futurists and forecasters; projections and scenarios about the future of life in the subject city; newspaper articles about

the workforce of the future; data and information specifically about the Council and its workforce obtained from internal databases, information systems and websites.

Using a STEEP analysis process, the assembled material was evaluated for current and emerging trends, focusing on the impact on the workforce. STEEP is an acronym which, in this case, stands for:

Social
Technological
Economic
Environmental
Political.

STEEP is useful as a way of conceptually ordering a vast array of information. It offers a "frame" or viewpoint from which to gather and make sense of the material.

The product of this scanning and analysis was a comprehensive discussion paper, entitled "Forces of Change". Topics included: the changing population demographics of the region; changing work modes and family structures; intergenerational employment issues such as an ageing workforce and increasing employer competition for talented workers; the emerging "digital divide" of computer literacy; emerging skills and labour shortages; local impacts of global warming and oil shortages; and the changing political landscape. "Forces of Change" was circulated widely throughout the HR community in the Council prior to the workshops. Readers commented that it "was a good read" and "pulled a lot of information together into the one paper." It was later used by some Divisions to inform their business planning process.

Futures Landscape

The Futures Landscape provided the framework for the series of three workshops. The metaphoric quadrants, in this case were labelled "The Stars", "The Mountains", "Pathways to the Mountains", and "The Jungle". The Stars represented the longer-term future, about twenty years from the present. The first workshop was entitled "Navigating by the Stars". It was planned as a light and liberating day, offering participants the chance to imagine an ideal working world, and to create a shared vision of the future in HR.

The Mountains represented the medium-term future. In this case, the year 2010 was chosen because it was a significant milestone in the previous HR strategic plan. The second workshop was entitled "The Route to 2010: Which mountains do we head for?" The purpose was to explore the altered direction for the Council, and to alert participants that a change in HR strategy was necessary. Continuing to provide the same projects and services, when organisational objectives had altered, would not achieve the essential mix of workforce capabilities for the future.

Pathways represented the actions and short-term plans needed to move from the present to the future. "Pathways" were selected because it was a metaphor that was appropriate to Council and familiar to the participants. HR practitioners frequently referred to working life as a journey along career paths. The third workshop was entitled "Choosing our Path". It focused on developing specific short-term options to start the journey.

The Jungle represented the present, the chaotic day-to-day working life, which is so busy that survival is the main objective. It was a reference point from which participants were asked to rise above, in order to see the bigger picture.

Workshop 1: "Navigating by the Stars"

In terms of the Six Pillars, Workshop 1 employed the futures techniques of Shared History, the Futures S-Curve, Scenarios and Visioning. As the opening workshop of the series, it was designed for maximum impact, as a "wake-up call" for participants. These specific methodologies were chosen so that there would be a progression from the known to the unknown, from an "objectionable" here-and-now to a twenty-year preferred future.

Shared History

Shared History was used to bring the 18 participants into the same intellectual and emotional space, because "by remembering the past, we can understand what part of the future is known, ... we can collectively share what has happened -the stories, the facts and the meanings we give to them" (Inayatullah, 2007). There were three elements to Shared History: the pre-work, the warm-up, and small-group exercises.

The pre-work began several weeks before the actual workshop, with a series of specially branded emails to participants. Each email provided a short reading piece about a predicted or foreseen event or issue that would likely have an impact on the Council or its workforce, and a series of provocative questions, such as "When has this happened before? What might prevent it from happening again?" Participants were not asked to reply to the emails, but rather to use their responses to develop a fuller personal understanding of the issues. By using this approach, participants were well prepared in terms of content and personal positioning.

The warm-up at the start of Workshop 1 was designed for immediate high visual impact, the "Wow Factor". The venue had been transformed into a kaleidoscope of colour and shape, to signal that this was no ordinary planning workshop. In addition to the usual flipcharts, whiteboards and a small-group table set-up, one side of the room was devoted to a "Museum of Work", and the other to a colourful chaotic array of stage props and costume materials. The "Museum" was a collection of items and implements that related to work over the past two to three decades, and images of developing futuristic technologies. Included were such items as a slide rule, a manual typewriter, and a brick-sized mobile phone. For the warm-up activity, participants were invited to browse the "Museum collection" and share personal experiences of the changes they had experienced in working life.

Participants were then deliberately placed at small tables, so that there was an even mix of Corporate HR and Divisional HR professionals. The two groups would have to work together on common sets of problems. The first small-group exercise for Shared History required participants to "brain-storm" the emerging issues for the city and record each issue on a colour coded post-it note. There were five colours, one for each of the STEEP categories in the "Forces of Change" paper. Participants were asked to think about and recall "Big Issues", "Emerging Trends" and "Wildcards". Big Issues were front-page headlines, such as the effects of climate change and wild

weather. Emerging Trends were issues that were not commonly known or widely understood, such as use of nanotechnology. Wildcards were unexpected but life-changing events, such as a terrorist attack on the city.

Futures S-Curve

A Futures S-Curve, an adaptation of Emerging Issue Analysis (Wildman & Inayatullah, 1998), was used to process the results of the first small-group exercise. Labels on the curve were tailored for relevance to the audience, ie local newspapers and television shows were named. A large chart of the S-Curve (Figure 1). was displayed and participants were asked to place the coloured post-it notes onto the appropriate sections of the curve. Plenary discussion of the populated curve identified points of overlap and concurrence. The finished piece was photographed as a record of the discussion.
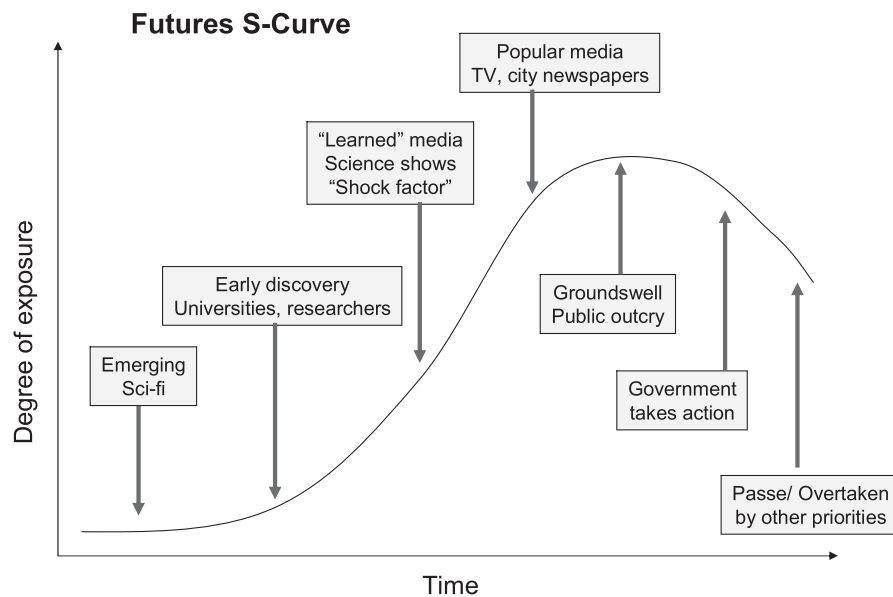
Futures S-Curve

Figure 1. Futures S-Curve, modified for Workshop 1

The second small-group exercise for Shared History involved sorting the post-it notes from the Futures S-Curve exercise by colour (representing the STEEP categories from earlier). Groups were allocated one STEEP category each, and participants were asked to brain-storm the relevant workforce issues that may arise. For example, from a Social perspective, the effects of an ageing population on the workforce might include skills loss as older workers retire; increased reliance on technology for manual work due to physical degeneration; and increased demand for aged-care and social support services (from child-care to granny-care).

In a summarising plenary session, participants highlighted the major issues and recurrent themes from each of the groups. The four most important issues identified were:

- declining availability of labour;
- increasing social dysfunction;
- rapid population growth in the region; and
- access to transportation.

The outcome of this set of activities was that all participants gained a collective knowledge of issues that may impact the city and its workforce in the future, and in the words of one participant, "lifted all of us up together in a way that let us look down on the situation and see the commonalities."

Scenarios

Working in small groups, participants were asked to develop scenarios of the Council's future in twenty years, based on four archetypes, namely: Business as Usual, Positive and Plausible, Worst Case, and Wildcard. Each group was allocated one archetype. To present the scenarios, groups were asked to perform a creative piece to demonstrate the main points. This approach was chosen because, in general, HR professionals are open to creative problem-solving, and are comfortable performing in front of others. Most of the participants were acquainted with each other or had worked together previously, despite the "us and them" rift between the two groups.

As each scenario was performed, those in the "audience" were asked to observe and jot down ideas and features that they might consider as part of an ideal workforce and those they would exclude. The cue cards read, "Must Have", "Don't Want". These personal jottings were referred to in a subsequent segment of Workshop 1.

The four scenarios that were developed were entitled:

1. "Survivor 2026" (Business as Usual)
2. "Council Triumphs in 2026" (Positive and Plausible)
3. "Review of a Failed Council in 2026" (Worst Case)
4. "City under Water" (Wildcard).

"Survivor 2026" (Business as Usual), covered the emerging issues of ageing population, skills shortages, an undersupply of suitable job candidates, and high labour demand due to sustained economic growth. This phenomenon had been characterised as a "talent war" within the profession, a battle between employers over scarce resources, ie talented employees. The scenario was in direct conflict with existing organisational recruitment practices, which were designed for a previous era of high unemployment and an oversupply of job candidates. The existing process was set to filter hundreds of applications, leaving only the best.

"Survivor 2026" was presented as a parody of the popular reality television show, "Survivor", in which contestants were job candidates who must survive an impossibly rigorous series of selection tests in order to be hired. Challenges included creating the most colourful work attire, being able to carry the heaviest load, getting the most resources in the fastest time, and concocting the most plausible justification for obtaining resources. The outcome was staged so that no candidate was able to pass every challenge. The result was that the organisation was so selective it was unable to recruit anyone for its workforce.

"Council Triumphs in 2026" (Positive and Plausible) explored possible solutions to several of the social, technological, environmental, economic and political (STEEP) problems identified by the group. For example, jobs in the future were designed to fit existing employees and they were supported by technology such as robotics. The physiological limitations of ageing were overcome and employees continued working beyond the age of eighty. Due to climate change and rising sea levels, floating bikeways were constructed to enable people to cycle to work over newly tidal low-lying parts of the city. The city became a world leader in its approach to sustainable living, and the Council was called upon to assist other governments to develop and implement its proven model.

"Council Triumphs in 2026" was presented as a morning current affairs television show, set in the future. The method chosen was a form of backcasting, ie working from a future perspective to answer the question, "What happened between then and now?" The vignette showed a flamboyant "TV personality" interviewing several "dignitaries", including the Mayor of 2026, and a long-serving Council employee, an octogenarian who had pioneered regeneration technologies. Each interviewee described how positive solutions had been put into action, and the impacts, for them personally and for the Council.

"Review of a Failed Council in 2026" (Worst Case), covered the negative aspects of an ageing workforce, and the impacts of high staff turnover, reduction of services, declining public health and poor safety standards due to the Council's inability to manage climate change and a dysfunctional society.

"Review of a Failed Council in 2026" was presented as a lecture by a fictitious professor of the future, who had been engaged to review the Council's performance against a range of criteria such as labour costs, service standards, and customer satisfaction. Two of Council's future CEOs were interviewed to uncover how, when and why critical decisions were made. This sketch also used backcasting to make the point that short-sighted decision-making would lead to an undesirable future. For example, one "interviewee" said that after the Council's highly regarded workplace health and safety culture was discarded in 2012, hundreds of workers were injured, costs skyrocketed and the Council could not recruit new employees because of its poor reputation.

"City under Water" (Wildcard), explored the impact on the city of a rapid substantial rise in sea level, a result of climate change. The central business district of the city is built on the flood plain of a wide meandering river. Whilst the suburbs are quite hilly, the CBD has been inundated in past floods. A six metre rise in sea level would be catastrophic for much of the city and its residents. Short-term it would mean evacuations, and failure of infrastructure including water, sewerage and transportation. Longer-term impacts could include a decrease in local population, increased health risks from mosquito-borne diseases, and an overhaul of the city's layout including re-siting the business and industrial precincts.

"City under Water" was presented as a two-act play. Act One painted the picture of a waterlogged city from the perspective of one resident, who described the difficulties of living in such an environment, including concerns about mosquito-borne diseases. Act Two depicted Council workers discussing the issues, options and opportunities over lunch.

Visioning

In the final segment of Workshop 1, participants were asked to envision a preferred image or metaphor for Council's future workforce. Working in small groups, and referring to their "Must Have/Don't Want" cards, each group generated an alternate image of a workforce they considered desirable. One group showed their desirable future as a spider's web, a perfectly formed network of interlacing silk, where every strand (person) was connected purposefully to another, and each strand (person) contributed to the pattern of the whole web. This was a significant breakthrough, given the disparity of the two HR factions prior to the workshop.

After all of the groups' work had been presented, a preferred image/metaphor was selected by consensus. The chosen metaphor was workforce as a carnival, a "clever chaos", a jumble of differing enterprises and activities that worked as a whole. It brought together such concepts as flexibility, rapid redeployment of staff, high levels of energy and commitment, community interaction, diversity, collaboration, and a balance between innovation and tradition. Participants embraced this concept, enthusiastically contributing additional thoughts and attributes to enrich the metaphor. The image was sketched in colour and was displayed and referred to throughout the subsequent workshops.

In the words of one participant, "the success was the non-cognitive creative process. It jump-started us out of our anxiety (about the future) and helped us find a way to a new future by sharing what we knew. And it was fun."

Workshop 2: "Which Mountains?"

In terms of the Six Pillars, Workshop 2 employed the futures techniques of Causal Layered Analysis (CLA) and Backcasting. CLA allows us to deepen our understanding about the future, by examining causes and alternative world views. Backcasting helps us imagine how we can progress from now to next.

Because the participants for Workshop 2 were essentially the same as the previous workshop, it was possible to build onto the outcomes of Workshop 1 with a little revision.

Causal Layered Analysis (CLA)

Use of CLA in this workshop was limited to exploring workforce implications from an occupational perspective. The process could have been deepened by incorporating other perspectives, for example age groups/generations, gender, ethnicity, disability, religion. However within the constraints of time, the CLA segment was linked to the purpose of understanding workforce through its occupational groupings.

The first layer of CLA is the "litany", the publicly known trends, the headlines, the visible and obvious. The workforce issues identified in Workshop 1 were revisited as a reminder of the litany, for example population increase and unmitigated housing sprawl meant a long expensive commute to work in the CBD.

The second layer of CLA is concerned with social causes, the "real" truth underlying the "obvious" truth. The exercise was designed to provoke recognition that there had been a significant change in direction for the Council. Participants were provided

with matched sets of published organisational documents, including the Mayor's budget speeches, strategic plans for the city, the Council's annual reports, and public website announcements, which had been produced at two specific points in time. One set was current, the other two years old. Participants were asked to note the similarities and differences between the two sets. The outcome of the exercise was the collective realisation that the "causes" of the city's problems had changed, or more specifically, the political interpretation of those causes had altered. For example whereas the Council had been focussed on resolving the social issues of population growth such as youth unemployment, the new focus was on the physical issues such as traffic congestion. Council still had a vision for an "accessible city", but the definition of "accessible" had changed. The solutions had switched from community development to roadway construction.

Accordingly the existing HR strategy had become misaligned. HR was still delivering programs to boost community development activities, such as equity and diversity awareness, and providing employment opportunities for disadvantaged unemployed residents, when it needed to be boosting the numbers of engineering and construction specialists. As public servants, HR professionals have the power to influence policy but not to change policy. The collective realisation that the HR function needed to change many of its long-established products, processes, programs and relationships was a defining moment for the group. One participant commented, "the most visible thing was that we were all in the same boat." Both the Corporate and the Divisional HR professionals realised they needed to do things differently, and they needed to work together. The most powerful moment of this segment was when the facilitator sketched a picture of mountains on the board, showing a chasm between them to represent the size of the shift. She then drew a bridge across the chasm to represent a way forward.

The third layer of CLA explores differing world views, and further unpacks the issues and problems from multiple perspectives. It is this layer that facilitates the most creative thinking, and assists homogeneous groups to consider issues from viewpoints different to their own. Four groups of participants were formed for this exercise, each group representing one of the major occupational segments of the Council's workforce. The occupational segments were:

- manual/trades employees
- administrative employees
- middle managers/professionals, and
- senior managers.

The reason these particular segments were chosen was that internal research, such as the Council's annual employee survey, had shown that each had its own culture and working conditions, which were quite different from the others. For example manual/trades employees were, in general, field-based, highly unionised and distrusting of "management", more critical of their working conditions, less satisfied, older, more resistant to change, and less educated than all other Council employees. In contrast middle managers/professionals were, in general, office-based, not union members, younger and tertiary educated. They felt overworked but achieved high levels of personal satisfaction from their jobs.

From the perspective of their allocated occupational segment, each workshop group was asked to explore the impact of future issues on them as workers in the general workforce, and as Council employees. Findings were presented in a plenary session, by means of "talk show" style interviews.

Unsurprisingly each occupational segment raised a different set of issues and possibilities. For example, the manual/trades workers reported that the construction of traffic infrastructure to overcome the city's accessibility issues would benefit them, as their skills and know-how would become critical to the organisation. They would be regarded as the most highly valued employees, and the unpleasant aspects of their work would disappear. Because there would be fewer manual/trades employees in the labour market due to fewer young occupational entrants, increased retirements and physical disability due to age, they argued that the organisation would use technology for physically difficult work, eg use robots to repair underground pipes.

In contrast, middle managers/professionals approached the accessibility problem from the perspective of reducing or eliminating the commute to work through information technology (IT). Improved IT would provide choice of working times and work locations, eg from home. They would be able to save time because of less commuter travel, and work more effectively using communications technology.

The fourth layer is the myth or metaphor, which is revealed through CLA process. It uncovered the belief system in operation for each of the occupational groups. For example the manual/trade worker group saw the future as "the world is my oyster". They were confident that their scarce skills and know-how would significantly elevate their status and improve their working conditions, making life easier as they aged. In contrast the middle managers/professional group saw their future as "connected and clever", with better capacity to balance work and life.

Backcasting

Backcasting is the process of "deriving strategy by going backwards from the future ... with the contours of the future already agreed on" (Inayatullah, 2007). Using the metaphor from Workshop 1 of the carnival as the long-range destination, the new location of the "mountains" as the medium-term goal, and the image of the bridge across the chasm, participants were asked to brain-storm possible actions to move from the future to the present. Ideas that were generated were sorted into "things to focus on or increase" and "things to decrease or exit". These were used as a basis for Workshop 3.

Workshop 3: "Choosing our Path"

Workshop 3 did not specifically use futures methodologies, however it completed the conceptual framework of the series by mapping out pathways from the jungle of the present, to the mountains and stars of the future. In the words of one participant, "by the time we chose the pathways, my mind was settled on where we were needing to go."

Workshop 3 combined the outcomes of the first two workshops to produce a preliminary annual plan for the HR Branch, and strategic guidance for three significant corporate HR projects. The last workshop was structured around obtaining the

answers to the questions, "Where are we now?" "Where are we going?" and "How do we get there?"

The benefit of having commenced the series with long and medium term futures was that, by Workshop 3, participants had a created a shared vision of the future. In short, they knew where they were going, and they knew they had to go there together. Building pathways from the known present to a shared future was relatively easy.

Outcomes

The material developed through the series of workshops was used to produce a revised version of the Council's HR strategy, which was subsequently endorsed by the Executive Management of the organisation. More than two years later, it is still used as a reference. The workshops aided the development of HR projects, budget and business plans that were aligned to the new strategic direction of the organisation. One of the most important outcomes was a turning point in the working relationship between the Corporate and the Divisional HR groups.

Conclusion

The use of futures methodologies for this series of workshops was critical to their success. The methodologies enabled participants to unlock their thinking, and rise up above the manic pace of daily work to see the bigger picture. Participants from two "camps" of the HR function not only worked together to derive one shared future, but through tools such as Causal Layered Analysis, came to understand each other's perspectives and recognise that the chasm between them was repairable. The series of workshops raised the planning process from the present jungle, where each step was entangled in pressing reality, to the vantage point of the stars, where the broader picture could be seen with clarity. According to one participant, the first two workshops "lifted all of us up together in a way that let us look down on the situation and see the commonalities."

By using a non-cognitive approach, participants were able to create innovative solutions to difficult problems. Once they developed a shared vision of the future, they were able to respond positively and doggedly to an unpopular imposed change in their work.

The long-term HR strategy document that resulted from the workshop series clearly communicated the change to others in the HR function and to management. Workshop participants became its ambassadors.

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References

Inayatullah, Sohail. (2007). *The pillars of futures studies.* Retrieved October 18, 2007, from http://www.metafuture.org/six-pillars-futures-studies.htm

Inayatullah, Sohail. (2007). *Futures thinking for transforming.* Sent to me from the author by email on October 29, 2007.

Inayatullah, Sohail. (2007). *Using the future to explore visions of globalization.* Retrieved October 18, 2007, from http://www.metafuture.org/Articles/UsingtheFutureto ExploreVisionsofGlobalization.htm.

Inayatullah, Sohail. (2007). *Pedagogy, culture and futures studies.* Retrieved October 18, 2007, from http://www.metafuture.org/Articles/PEDAGOGY,%20CULTURE% 20AND%20FUTURES%20STUDIES.htm

Inayatullah, Sohail. (2002). *Questioning the future: Futures studies, action learning and organizational transformation.* Taipei, Taiwan: Tamkang University.

Wildman, Paul, & Sohail Inayatullah. (1998). *Emerging issue analysis.* Figure reproduced in Sohail Inayatullah, Futures Oriented Policy Planning Workshop 1 Notes. March 4, 2003