



## **CHANGING THE WORLD ONE PERSON AT A TIME**

### **LIVING SUSTAINABILITY SMART COMMUNITY MODELLING IN ACTION**

*Keynote speaker contribution*

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When you think of Saudi Arabia, what comes to mind?  
Maybe you think of oil, deserts and a traditional lifestyle that steps back over a thousand years?  
However, *“With the sands of time, things are changing!”*  
Here is where the story begins.

In September 2015, a decision was made that will alter how projects are delivered in Saudi Arabia, starting at Ministerial level and cascading down throughout the thirteen provinces. One such province, the largest and furthest flung of the East coast, simply known as “The Eastern Province” is leading that change under the guidance of the APM’s best practices.

Within the province’s capital, Dammam, a project is currently finishing its development stage and is preparing for launch into operation this June. But what makes it so special? This project and its project sponsor have pushed the initial boundaries requested by the ministry and is attempting to shatter the glass ceiling of capability. In a region that is home to most of Saudi Arabia’s oil production and is fast becoming the global hub for the chemical industry, a *new style of PMO and project delivery is ready to emerge!*

For so long this region has been fragmented and although covered by multiple municipalities and governed through many ministries, there has never been any major structure to the governance or government of the province. In September 2015 it was decided that this had to change and that a new approach should be undertaken. The first step behind this was to set up a project team within the main Municipality Building in Dammam and then draw in a project team that could deliver the project to change the city, not just for the short-term, but for a sustainable future. The decision was made that the best way to deliver this major change would



be to centralise the strategic planning of the whole region under one roof to be governed by one individual, the head of the Project Coordination and Planning Centre, Engineer Mosaad Al Qahtani. His project team that would deliver this was made up of four different companies spanning eight different nationalities from Saudi Arabians, many other Middle Eastern countries, American, German and Venezuelan, all headed up by an English project consultant, Mark Reeson.

Although there were many major dignitaries involved in the decision making process of what was needed for the new Project Coordination and Planning Centre, using a typical Arab approach to decision making, where the major stakeholder after the Governing Prince Said bin Naif, was the Eastern Province's Mayor, Jamal Nasser Al-Mulhim. With so much notoriety watching over the project this made every step sensitive to the needs of those making the decisions and the community that would be affected by the delivery of this new approach to project management for the whole region.

The first question that had to be asked was, what exactly is this Strategic Project Coordination Planning Centre (PCP) and where did this proposal come from? The PCP was the result of the proposal to centralise the coordination of projects throughout all the municipalities and sub municipalities in the region. For far too long each municipality and civil authority had worked independently from one another, creating a counterproductive working environment. This would then allow and demonstrate for a new way to look at utilising the resources within the Eastern Province more efficiently. What this new approach would offer was a clearer picture of what is happening in the region and more importantly, to allow people to understand why these changes were happening.

Further to this it was decided that a new way of selecting and prioritising projects should be brought into force through the new department. The prioritisation of work would be based on the need of the work rather than simply a wish and to eliminate the amount of redundant work which takes place within the region where roads, rails and electrical cabling is dug up once and then within weeks dug up again. As a further addition to make this work more effectively, it was decided to enlist a team to write a specific bespoke piece of software that could monitor, control and report the whole region in one system to modernise the process of how the municipality's work was recorded. In addition to the requirement of the IT System, there would need to be a new procedural set up for the department and these procedures, objectives and the governance behind them would have to be drafted from scratch, before being proposed to gain the highest level of stakeholder approval.

As a further enhancement to the new Project Coordination Planning Centre, it was also decided to create a new project management approach for delivery of all projects across the region which would involve researching the best approaches to project management and then drafting out a new project management manual so it can be used as a guide book for all project managers working within the Eastern Province. Lastly, one final request by the Governor due to his passion towards the subject, he stated to the Mayor that any approach and any new introductions must meet to the standards he decreed as a sustainable solution. This approach was encapsulated into a new model that had been designed previously called the SMART model which Mark Reeson had previously used to create SMART project and business management. It was decided to uplift this model to cover the full city and then with the addition of the Fanar Consulting approach to increased mobility and create greater accessibility to information, the model was shaped to create the City SMART model.

All this planning was fine but this would therefore also include the training of all the new members of staff joining the department in the procedural changes, the new IT system, on how to manage the Project Management delivery and of course the new model, City SMART. Not wanting to stop at this, the Municipality made a further request within the planning phase, that the project team should further enhance the knowledge of the region with the creation and maintenance of a new asset register for all municipalities and authorities' assets to give a clear understanding of the true status of the inventory of the region's public assets. By doing this and



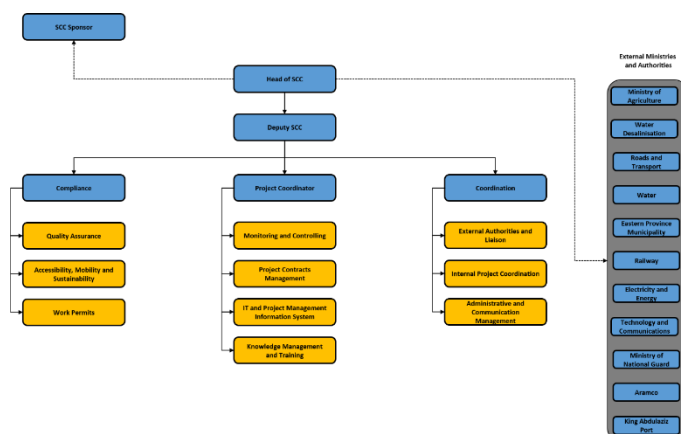
bringing the planning under one department the main objective for the Eastern Province was to have greater alignment and synergy of all the authorities' current plans and then merge them into one singular strategic annual and five-year plan. The last part of the project scope, to create the department, involved the team itself, requiring to locate or build the new PCP office development, load it correctly and then prepare the office spaces for occupation.

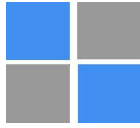
Although in principle this seemed logical, one question that was raised regularly was why build the Strategic Project Coordination Planning Centre, after all, why not simply improve each department from within? This question was asked and challenged by many of the ministries that had ran their own organisations and strategies for many years and could not see the benefit of the new centralised approach. Explaining to some of the senior ministries that hold such huge sway of power involved many presentations and reports to demonstrate the importance behind a new way to develop a centralised coordination of all projects for the benefit of the whole region. With the creation of the new department it would give greater focus and visibility to all the municipal projects and not simply the large scale projects that fill the skyline. Explaining to the group that having one department that could show this off would therefore show to the region, its community and eventually, Saudi Arabia as a whole that the Eastern Province could be the flagship behind making a real difference, which further supported the statement made called Saudi Vision 2030 by the Deputy Crown Prince, Mohammed bin Salman where he explained in April 2016, that Saudi Arabia had a new ambition to reshape and to transform its economy by moving away from its reliance on the oil trade.

This announcement came at a very timely moment when questions were still being asked about the viability of such a large-scale change and before long the message was passing through key offices of Dammam about a new vision where their Strategic Project Coordination Planning Centre would become "A Future Model for Decision Enabling and Delivery Support to create a cleaner, smarter city".

So, if this was going to be implemented on such a scale, what would be the role of the Strategic Project Coordination Planning Centre? By creating this new department there was a clear vision now for what it would do and why it was needed. By having one central location for everything project management related for the whole region it would allow for the introduction of a standardised project management governance system. By introducing this it would further be assisted by the procedural work of Fanar Consulting by enhancing the Quality Assurance within the Eastern Province for processes and procedures which it would hope would then increase the stakeholder engagement throughout the municipality with a greater control being taken over the issuance of work permits and licences. Finally, its role would then be cemented by becoming the mobility, accessibility and sustainability champions, initially for the region, but with the correct handling and communication for the whole of the Kingdom creating the first step towards the Deputy Crown Prince's vision for 2030.

Explaining the benefits of a centralised Strategic PCP Centre at first was never easy but four keys areas started to emerge that became the focus of attention of the ministries and the municipalities together. They started to understand that standardised processes and improved productivity would create an environment where their money would go further and at a time when budgets had been trimmed due to international unrest and conflicts on two fronts, having a little extra made a huge difference to how they could manage their own workloads. Also, by having one organisation that could look at the





greater picture geographically, allowed for greater risk mitigation which could lead to improvements that would give an enhanced quality of service with a front-line focus which had never been seen before by promoting the use of risk management and gaining greater awareness to the whole region. With this improved visibility it could show the Eastern Province in a new light and the community as a whole could benefit which would hopefully attract further interest and further business investment for the future. It was imperative that the people of the region and beyond could see what the government were doing and what they were creating for the future. The last of the benefits that became clearer as the planning moved forward was the use of the Supply SMART aspect of the model which allowed an integrated supply chain to the PCP, which could offer greater cost optimisation on all the work that needed to be completed by both the municipalities and the relevant authorities.

All this planning was fine but it was not without many associated risks to the delivery and also post-delivery with the lack of acceptance by the authorities and the municipalities let alone the community as a population. One of the major risks was that by changing the operational processes to dealing with the work, there could be a lack of compliance which might lead to causing a process failure. This was identified as something that had to be delivered from the first day to ensure a baseline of understanding had been established. In addition, if the project team did not communicate the message well enough to both internal and external stakeholders, the lack of transparency of the changes would lead to a failure to gain authority buy-in leading to rejection even at the later stages of the projects. This would mean that the Eastern Province would have to consider communicating to a much wider audience than ever considered before. In addition, the project team soon became aware of the region's lack of strategic expertise that existed; this could potentially cause coordination inconsistencies therefore, the need for the right people running the Strategic PCP Centre once it was opened became clear very quickly.

Due to the fact this risk was identified early, it was decided that the key posts within the PCP Centre were to be filled by international staff and it would be their responsibility to start the training programme to identify and coach their Saudi replacements. Something far simpler and well within the project team's control was that by having a change in processes and policies, this could cause confusion amongst the staff, the contractors and the organisations and authorities so greater clarity once again would be the main aim of the project. Finally, we had one last project risk that we knew of that we didn't truly understand until the project had initiated. Everything that we produced as a team, had to be translated into Arabic, but as we soon learned, as the documentation was being generated, having the right person with the right knowledge on the subject matter and the ability to contextualise the words is a rare and exclusive skill, meaning it was going to be very hard to find someone to fill this position, as unlike many languages, Arabic does not have a direct or literal translation to English.

Convincing ourselves had been an achievement, however telling others how and why the PCP should exist was a further challenge. We should prove we could set a standard and that it would make a difference.

All our ideas were fine and knowing our own competence was one thing, but to understand a different culture and their approach to the work that had to be done was a different challenge. The Eastern Province had its own standards in many areas and this gave us an idea of what the standards had to fit with when it came to each of the deliverables and procedures and processes.

#### **Eastern Province Projects Governance and Compliance:**

Assurance of the compliance with the Quality, ISO, Accessibility, Mobility, Sustainability, Safety, Smart-Cities, for all criteria of all projects and initiatives undertaken by the Eastern Province Municipality.

#### **Eastern Province Programme and Portfolio Management Office:**

Assessment, planning, control, coordination and reporting of the different programmes, projects and initiatives undertaken by the Eastern Province Municipality.

#### **Eastern Province Projects Coordination and Planning:**



Coordination, planning and execution with all internal and external authorities of all the works required by the projects and initiatives undertaken by the Eastern Province Municipality. There was a clear show of rules and regulations that needed to be abided by and plenty of authorities and organisational bodies ready to watch each step of the project. So, with everyone now on board, (in certain cases as well as we could) we now needed to improve the delivery by making it meet the key requirement of a sustainable solution for the next fifty years. So what exactly is being City SMART?



The City SMART approach was based on the original model created by Mark Reeson for the enhancement of learning through action rather than theory which he created to improve project competence based around a student or delegates competence rather than simply knowledge by introducing Action Based Learning. With this model it was further adapted to create a version for Business Management, Event Management and Supply Chain Management formulating his own SMART family.

As a new challenge however, asking this to be fully uplifted to take on board the working of a city, it required the assistance of the Fanar Consulting team and their views on increased personal mobility and greater information accessibility to truly bring the model to life and create a new inspirational model for the future.

This next section of the document will explain the enhancements that were included to make the whole operation for the Eastern Province fully sustainable for a future whereby the change would have the greatest impact possible.



#### **Increased Mobility:**

The first aspect of the three elements to create the true change within Dammam and the Eastern Province was increased mobility. What was recognised early as the solution to this project, was that it is important to understand the essential need for people to gain access to the right goods, services and social and economic connections. By introducing this change it was important to recognise the growing global population with an increasing affluence and the urban sprawl occurring in the region. Aligning that with the ever declining transport costs was pushing the demand for mobility upwards. People in Saudi Arabia now clearly want to travel, they want to move. The challenge is getting

them to move to this region instead of the previously more popular destinations such as Riyadh, Madinah, Makkah or Jeddah. This was what the Governor had planned however, with growth comes greater environmental, economic and public health challenges. These would also have to also be addressed. Add the fact that transport is an energy intensive resource which is responsible for sizeable proportion of greenhouse gases, whilst congestion also holds back economic productivity, clearly getting the balance right was clearly going to be a real challenge. This would mean a new programme to be launched again in the near future for an improved road and rail system. However, the balance which could also work in our favour was that with greater mobility, it would improve the region by making it rich in innovation, intelligence and this could then help develop the newly planned integrated citywide systems and so becoming more City SMART.

#### **Greater Accessibility:**

The next element that had to be addressed was the theme of greater accessibility. Information management and accessibility to it has changed due to the increased connectivity available these





days through so many devices. Technology has created an emphasis on lifelong learning meaning therefore that there is a greater demand for information reception. What this is creating in the region is a rapidly changing world who want to attain or develop new skillsets in their lives. This therefore placed a greater demand on the infrastructure provision. There are over 53 million users of WhatsApp in the Kingdom as this is the most popular form of communication and as Saudi Arabia becomes more IT aware, they have grown with their social media usage becoming the 14<sup>th</sup> largest in the world in only a few years. With this new information surge this increases their opportunities to move between professions such as engineering, law, academia and business far easier. The people of the Eastern Province are now taking greater responsibility for their own learning and information gathering which therefore leads to the municipality having to put greater investment into informational needs and the modes of delivery to improve social and economic mobility. Put simply, the greater the population, the greater the demand on the informational sources and without improved facilitation the population will not be attracted and neither will the business or financial investment.

#### **Future Facing Sustainability:**

The last aspect of the Governor's vision was to ensure that we didn't make a change for now but



for the next fifty years, so anything we did related to the project delivery must have within it, a Future Facing Sustainability Model. The first area of concern was that we had to ensure that the supplies of water, energy and food for all by managing the synergies and trade-offs of all that we had previously discussed. We had to create a clear context of environmental, economic, social and technical, legal and political changes plus, look into the right direction to decarbonise social and economic systems whilst stabilising the climate by promoting behavioural changes in the

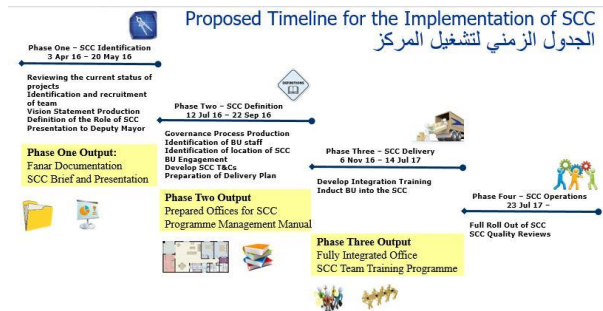
region. The message had to be sent out, "Sustainability is not about being green, it is about having greater awareness".

We had a remit whereby we had to safeguard terrestrial, freshwater and marine assets that underpin human well-being and improve the quality of life. To do this, we would have to undertake an exercise to understand the relationships between biodiversity and their related ecosystems. The aim was to get the most out of the region and what it could offer and not to sacrifice the land as a result of growth, creating a harmonious relationship between the population and the land. The long term plan was to build a healthy, resilient and productive city by identifying and shaping innovations for a better urban environment with more efficient services and infrastructures. In doing this we will be promoting a sustainable rural future which adapts to the increasing demand on food production, with an affluent population by investigating in alternative land uses, food systems and ecosystem options. Questions needed to be answered with the changing and growing population, such as what food was needed, where it would come from and how it could be brought into the city in the safest and most efficient way. One challenge that would always remain was the location of the Eastern Province and its closeness to Riyadh. However, this was seen as an opportunity to draw from Riyadh and to reverse the trend of people leaving for the capital city.

The true goal for the Eastern Province which would open the world's eyes to how Saudi Arabia is viewed was to improve human health by clarifying and developing solutions to the complex interactions among environmental change, pollution, disease and social well-being. This would lead to educational steps to encourage sustainable consumption and production equitable to the changing social and environmental impacts of consumption, which would in turn be monitored and controlled by increasing the social resilience to any future threats by building adaptive



governance systems and developing early warning systems for preventative actions against future issues or risks. This would therefore limit the waste being produced by the region and the waste produced would be more efficiently and safely disposed. The City SMART Model's fifth element allowed for the recognition of the need to change which meant that all plans stayed



‘live’ which would deliver the city for tomorrow but also for the next fifty years. Understanding the Saudi culture was key to the delivery and approach of the project implementation. This was not a delivery that could be delivered with a big bang. To create this delivery in a full, detailed and controlled manner it was decided to separate the whole thing into four phases and then also into three main work streams. The work streams would all be

named after aspects that would have a deliverable with them, the PMO Project, the SCC Project and then a third that had become very apparent called the OLA or Operational Level Agreement Project. Having the team separating up the work and then delivering it in phases came under many challenges for our approach and style but once the lead for the project had been established then the project's momentum grew and the delivery became more rapid in its approach. This project has now reached its final stages of the full delivery and at the time of writing the offices are now in place and ready to be filled for full roll out. With the new roll out ready to bring in the benefits and the vision that this project has planned, after many challenges this has finally been delivered as a real success.

So, with everything in place and with the team prepared for implementation, would it be accepted truly in Saudi Arabia? The biggest push was about to happen. On 16<sup>th</sup> May 2017, there was a meeting in Riyadh where the senior management officials from the big five municipalities held a strategic discussion about the formal role out of Coordination Centres in



the full Kingdom. The big five cities that make all strategic decisions on behalf of the kingdom are Riyadh, Makkah, Jeddah, Madinah and Eastern Region (Dammam).

The main purpose of the meeting was to establish the next step which is aiming at the coordination all efforts and to assure same standards and understanding throughout the five cities. This would then arrange the future for project management delivery in the Kingdom for the structure, roles,

responsibilities and authorities of all Coordination Centre departments. It was recognised that not all municipalities are at the same level of organisation maturity and understanding of the purpose of the Coordination Centre. This would be seen as a huge step towards the introduction of the Saudi Vision 2030 programme. The decision was made that the City Smart approach was the ideal model to follow and so the Kingdom's approach in the short and medium term would be to support each municipality working with the Ministry of Finance for assigning the required budget, based on the priorities of urban development of cities not based on the services sector requests.

The initial thought towards a further roll out was decided in Riyadh at the next MOMRA meeting, with a provisional plan. The roll out for the national work would be:

- The big 5 cities in one year 1438H (2018)
- The next 80 cities in the next 3 years between 2019 - 2021
- The remaining 135 cities between 2022 - 2029
- By the end of 2016 they would formalise all municipality urban development plans for their cities to assign the 1438H (2017/2018) budget



The Makkah officials suggested to outsource the work to the PCP Centre specialists so they could then focus the Kingdom's investment into services provision. The PCP Centres for a future facing sustainable approach will include

- Development of a Coordination Centre in all municipalities
- All municipalities are to be developed to align with the Smart City Modelling Concept
- Priorities of urban development through a good knowledge and active software
- Lessons Learned and Knowledge Management throughout the big five municipalities
- The governance of the Kingdom of Saudi Arabia will fully support this direction and will provide facilities to transfer the current situation to the new approach for the future

So, with everything in place to deliver, the only question that is left to answer, is how exactly does the City SMART Model work? This was a eureka moment in January 2017 when the Municipality were explaining how they wanted to deliver projects when Mark Reeson left the room and promised to be back in two hours. Two hours later, he returned and the initial SMART Vision was drafted and the picture for the future was clearer.

The first thing to remember with all work, is that everything starts at the top. The SMART Vision process begins under the authorisation of the Ministry when they issue their own five-year plan that covers four specific disciplines:

- Storms and Drainage projects
- Asphalt projects
- Human well-being projects
- Building projects



These four disciplines make up the Urban Development Plan that covers a specific region for a five-year period stating what will be built in which districts and when, therefore prioritising the development of specific areas that it feels are of a greater priority than others. This first step in issuing the five-year plan to the Municipality starts the Eastern Province's own processes which have been the SMART Vision 2017, to support the development of the 2030 Vision that promoted the idea of greater uses of

PMOs to support future project delivery as stated in 2016 by the Deputy Crown Prince Mohammad bin Salman.

Next, to support the Province or city's new approach to the SMART Vision, there are several Strategic documents that have been created to ensure that there is a clear structure and governance behind all the work that it produces. The four key documents that make up the governance structure for the Municipality are:

- Strategic Statements
- Governance Manual
- Communications Plan
- Implementation Plan

These four documents form the structure by which the automated Project and Programme Management (PPM) system is to be managed and describes within them the metrics necessary for managing the Province or city's deliverables. This automated system then comes under the authorisation and the direction of incumbent of the position of Head of the Project Coordination and Planning Centre (PCP). This role then authorises the internal and external stakeholders the correct access to the Ministry's Urban Development Plan to offer greatest visibility to all the activities and districts that the Ministry has determined as the most important now. By allowing





access to this information the internal and external stakeholders can plan their own activities in line with the Ministry's own priorities.

It is at this point in the process that the internal and external stakeholders have different responsibilities and processes to ensure that the SMART Vision works successfully. As the external stakeholders are private organisations this must be recognised from the beginning of the business process, as they will have their own priorities and shareholders' direction. Therefore, to ensure that the SMART Vision is a success to all involved this early recognition means that the Ministry Authorisation of the four key areas of the Urban Development Plan needs to be shared with them, however as a guidance for their support and not as a directive. As the external stakeholders are there to support the Province or city's new approach, equally the Municipality reciprocates this support to the external stakeholders. Where internally, the Municipality provided the documentation for the stakeholders to give direction, here the external stakeholders will not have access, nor need access to the documents as they will self-direct.

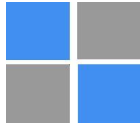
If an understanding is in place between the Municipality and the external stakeholders as to which areas are being developed, when and how, then if communication is kept open between the two parties then the SMART Vision approach will be successful. Giving the external stakeholders visibility to the Urban Development Plan is paramount to success, however this does not necessarily mean access to the Automated PPM System and so what accessibility is granted and to whom and when should be a decision that is made by the incumbent of the position of Head of the Project Coordination and Planning Centre (PCP).

The Municipality's authorities make up the internal stakeholders that will deliver projects within the Province or city. Now each of these authorities has visibility of the Ministry's five-year plan it should work with the PCP to align its priorities with those stated by the Ministry. The internal stakeholders would work with the Strategic Planning Coordinator to develop their plans and the relevant alignment with activities and districts. Once these plans have been verified by the Head of PCP, working on behalf of the Mayor of the Province or city, the internal stakeholders will be allowed to continue delivering their own projects under their own supervision and control. However, to assist and support the efficient delivery of the projects, the PCP Department provides the services of the PMO.

This PMO has been designed to record and monitor all the internal stakeholder projects across the Province or city and to provide a full suite of project documentation to help with the delivery of every project. By working together, the internal stakeholders and the PMO can track the start of each project and the performance of each project to ensure that it stays in line with the greater plan for the whole province. The PMO itself is supported by its own suite of documentation that it will use to enhance the project and programme management achievements for the Municipality. This suite of documents includes:

- Project Prioritisation Guidelines
- Project Management Manual
- Project Evaluation Report
- Programme Objectives Report

Further to the support offered by the PMO, the final section of the PCP Department, is the Quality and Compliance team. The role of this team is to ensure that only the relevant projects, in the correct region and at the right time are issued work permits and that once the work has been carried out that it ensures it has met the specific requirements needed to fulfil the obligation of the project activities. In addition to the applications for work permits, the Quality and Compliance team will be assessing the internal stakeholders' assessments against the sustainability criteria required and set by the Head of the PCP under the direction of the Mayor of the Province or city. Each internal stakeholder will be given access to the SMART model to



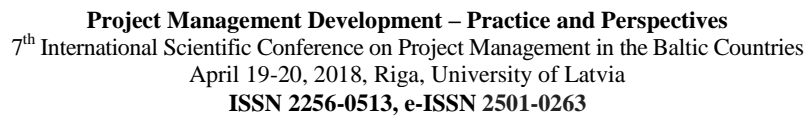
assess their project activities so that the results can be recorded and then checked against the sustainability priorities of the Municipality. The SMART model measures six distinct areas:

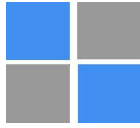
- Business Organisation
- Business Development
- Business Finance
- Business Governance
- Supply Chain
- Environmental Sustainability

These six areas are based around the governance of the Municipality's projects through the PCP which has three main aims:

- Greater Accessibility for all
- Increased Mobility for all
- Future Facing Sustainability for all

Each internal stakeholder will submit their assessment to the Quality and Compliance team. The private and commercial companies that deliver projects on behalf of the Municipality within the Province or city make up the category that are determined as external stakeholders. As the Municipality has no direct authority over these organisations, the relationship between the two parties is much more fluid but still must have a structure. The external stakeholders will still be given access to the automated PPM system but with limited usage so that it has visibility of the Ministry's five-year plan to allow it to align its own plans with the Ministry's directive. To gain support in this area the external stakeholder can discuss and share its planned activities with the Strategic Planning Coordinator to ensure there is a clear understanding between the Municipality and the external stakeholder as to what work is going to be carried out when to achieve the planned goals.





For the external stakeholders, the role of the Quality and Compliance team is very like that of the internal stakeholder but not through solely an authoritarian approach but also as a supportive and detached approach. The role of this team is to ensure that only the relevant projects, in the correct region and at the right time are issued work permits. However, it will require to ensure that a sub process and agreement exists between the external stakeholder and the team once the work has been carried out so that a suitable inspection can be completed to confirm the delivery has met the specific requirements of the project's activities. In addition to the applications for work permits, the Quality and Compliance team will grant access to the front end of the SMART Model so that it can perform its own initial assessment of the work being carried out so that this can then be measured before, during and after the project. When the submission for the work permit is issued by the external stakeholder this sustainability assessment will also be used to validate the work against the sustainability criteria required and set by the Head of the PCP under the direction of the Mayor of the Province or city. If an external stakeholder wishes to have full access to the complete tool so that they can carry out sustainability assessments on their own processes and functions as well as those whilst working with the Municipality then this permission will need to be granted by the suitable authority.

This creates a fundamental planning and control approach, however still does not fulfil the sustainable strategic planning that we need for the future. Now both the internal and external stakeholders are delivering their appropriate projects, the strategic planning and coordination for this, next and future years can begin. By collecting the data generated by the Quality and Compliance team and the performance information of the PMO, the Strategic Planning and Coordination team can start to set the new targets and update the metrics being achieved year on year and for the future. This team will also be ensuring that that the Ministry's priorities are all being recorded against the feedback reports to update, maintain and create the necessary records within the Asset Management System that will be aligned with the Automated PPM System. With the constant updating of the asset register this will give greater visibility to the Head of the PCP and the Mayor of the Province or city of what districts are growing, which areas are developing and how their province is responding to these changes. Now this information is available, it can be used to improve the optimisation of time and resources further by developing both the internal stakeholders and supporting the external stakeholders with their long term strategic sustainable planning.

With the continuance of information flowing now into the PCP from the internal stakeholders' projects, this data can then be used to create and maintain the plans that have been produced up to this time. With this information being channelled through the PCP this will offer greater visibility of the internal stakeholders' activities and achievements and with the support of the PMO and its documentation, an improved efficiency in the way the internal stakeholders implement their projects. With the use of the PMO's quarterly Status Reports, the PCP and specifically the Strategic Coordination and Planning team can use this information to start to develop a more strategic way of thinking about all internal stakeholder projects for the future. Feeding this information between the internal stakeholders and the Head of the PCP will reduce the waste that can be exhibited on projects and eliminate the repetitive natures that some projects have had in different districts over the years.

As the PCP and the project management approach matures, so the strength of a resource and realistic five-year plan for each internal stakeholder will become possible. Once the five-year plans have been developed these will align with and feedback into the primary document from where the process began, the Ministry's Urban Development Plan. With the feedback of information from the reports generated by the external stakeholders' projects, the visibility of what has been achieved will become transparent and will help to forge the relationships between the Municipality and the external stakeholders. As the data becomes readily available through the Automated PPM and the Asset Management Systems, this will mean that the PCP can offer its support to the external stakeholders as required to assist them with the development of their own annual and five-year plans.





By having the external stakeholders embracing this approach and understanding a thorough process means help and support not command and control it is hoped that this will develop the relationship further so that all the long-term planning made by the Municipality and its external stakeholders can be combined to develop a master schedule of activities in years to come. With the SMART Vision 2017 in place the Municipality will have the opportunity to finally highlight the importance of creating strategic plans with clear, measurable goals and outcomes. This approach will allow for the creation over time of mid-range and long term goals and outcomes being identified with obvious beginning and end points, whilst the projects and tasks required will describe how the work will be conducted. Having this structure in place will allow the management team and the decision makers to calculate and allocate the correct human and capital resources to take the necessary actions. This decision-making ability can position the Municipality on a course to accomplish future goals or outcomes. Reviewing and re-assessing of the strategic vision will also give early indication to resource constraints which may indicate that a goal or objective must be satisfied before proceeding to a new goal, or that certain goals or objectives are unnecessary, inappropriate, or unattainable. By having the flexibility within the long-term and sustainable strategy will allow the senior officials of the Municipality to avoid a linear goal-driven mind set but instead can plan with greater confidence and practicality to create substantive and productive change to the region.

BFN JOURNAL NEWS



Saudi Vision 2030.

However, changing a city and how it functions is one challenge, but what about the communities that live within it?

In a world where technology is all around us and we continue to be challenged to save more time and money through the immediacy of automation, there is a huge danger of forgetting a key factor behind any change, it involves people.

Having worked with many 'Smart Specialists' and invested my time to contrast the approaches being taken through some of the latest Smart Cities, it is becoming more apparent that the 'Internet of Things' which has gradually become the 'Internet of Everything' has a potential to make a Smart City, a faceless city, or rather a faceless community. A city and its identity is based on what it looks like and what it does, but mostly on its cultural and social values. Therefore, a truly Smart City must start and end, with its own Smart Community.

However, before we all start to consider throwing out all the technology, it is important to recognise that the community that we have will need to be supported and at certain times, directed by the technology. The key word to all this success is balance, so that the technology we use add value to "The City and its Community" in a way that it is FOR ALL and that it does not leave behind some members of our valued and unique society that has been built up of centuries.

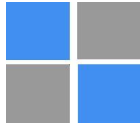
The Kingdom of Saudi Arabia has set its sights on a new and improved future, changing the way other countries look at it and more importantly, how it views itself.

This sustainable change will be greatly impacted by project and change management approaches that are taken and how these changes are delivered. The result of these changes and what its potential can be in the future, will shape the



**So, what exactly is a Smart Community and what does it mean to become Community SMART?**

Starting quite simply, people are impacted by their living or working environment, whether a city, an



organisation or a province or region. The impact can be evaluated using six key factors, each one as equally important individually, but when combined, creating a powerful sense of well-being and integrated inclusion FOR ALL.

The six factors that have to be identified and then evaluated in each city or community are as follows:

- ❖ Safety
- ❖ Efficiency
- ❖ Livability
- ❖ Health
- ❖ Prosperity
- ❖ Sustainability

These six factors are generally referenced by organisations or authorised bodies as Social Responsibilities, whether these are personal or corporate. Corporate Social Responsibility (CSR) is that undertaken by a business approach so that it contributes to a sustainable development by delivering economic, social and environmental benefits for all internal and external stakeholders from its plans and its actions. However, CSR is a concept with many definitions and practices all wrapped up inside.

One of these key practices, is that of Social Responsibility, which is an idea that businesses, governments or people of authority should balance the profit-making activities with sociological beneficial activities which involve developing businesses and organisational bodies with a positive relationship to the society in which they operate.

One of the biggest drivers towards CSR and to making a difference to the world and to our communities was the release in January 2016 of the United Nations Development Goals when they issued seventeen Sustainable Development Goals (SDGs) to meet the 2030 Agenda for Sustainable Development. With the plan in place, the intention of the UN is that over the coming fifteen years, these new goals would be applied universally to all, with countries mobilising efforts to end all forms of poverty, to fight inequality and to also tackle climate change ensuring that no single body of people are left behind.

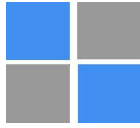
It was whilst reviewing the SDGs in the Autumn of 2017, that it became apparent that the UN strategy is in many ways aligned with the SMART Sustainability Modelling programme which has identified a FOR ALL strategy. This alignment led the team to then identify how the Smart City approach is also integrated and so the City SMART initiative that was started by M R Project Solutions Ltd in the Kingdom of Saudi Arabia, was further adapted to include the UN's vision with the SMART Vision 2017 and the SMART Model to enhance its value and to finally develop the Community SMART Concept.



The goals of the concept are that each community is unique and so that it calls FOR ALL communities, whether their members are rich, poor or somewhere in between, to promote prosperity whilst also protecting and investing in their own surroundings. With the recognition that ending poverty cannot be achieved without a strategy to build economic growth within their own community this would also lead to further social needs being addressed that are specific to the community at large.

Much as the SDGs cannot be made legally binding, the communities and the authorities within them are expected to take ownership of their own areas of responsibility and to then, once a platform of success has been established, create a network to combine regional and then national frameworks of values and commitments. However, without an approach to measure this progress, the idea of the SDGs or a Community SMART programme would be idyllic but essentially toothless, which is why the team created and continue today to develop further the SMART Metrics, which become specific for each and every community that undertakes the programme.





**So, with this concept now firmly established, how does the Community SMART programme begin and how do you start to develop a new approach with a benefit FOR ALL to make a change for the better in the future?**

Let us begin with the first of the six factors, Safety.

#### **Safety – Creating a Safe Community**



A safe community, is a “Happy Community”. That sounds simple but is very true. However, creating an environment where people can flourish needs time and commitment BY ALL. Firstly, there is a need to identify threats before they can happen and to proactively promote and implement the aversion of danger. One of the best ways for the community to act SMART is through the sharing of information, which requires an open and liberal information flow, without any restrictions and across the different jurisdictions, collating

findings with regard to research, development, science and technology, leading to an improvement of the authorities and the communities’ situational awareness. With this simple step this can initiate the aim to safeguard lives and to protect the property across the whole community and FOR ALL.

The key aspect of having a safe community, as mentioned earlier, is an increased situational awareness. Communities need to be able to improve the perception of the environmental elements and the events occurring within that environment with respect to the time or the space in which they are in. Being able to ascertain a comprehension of the meaning of this information and then project this status when one or more of the variables change such as time or an event, is key to the safety of the people within the community.

Situational awareness, is a result of four key elements being brought together and then assessed, simultaneously to draw a picture of perception in the mind of the viewer.

These four elements are:

- ❖ Situational Understanding – Applying analysis and judgement to the current situation
- ❖ Situational Assessment – Achieving, acquiring and/or maintaining your current awareness
- ❖ Mental Models – A set of well defined, highly organised yet dynamic knowledge structures developed over time with personal experience
- ❖ Sense Making – A motivated and continuous effort to understand the connections between people’s behaviours, certain locations or places and any relevant events or occurrences

#### **Efficiency – Planning the Improvements**



The aim to efficiency planning for a community is to “Maximise the Efficiency of Events” such as housing or transport development and redevelopment. To achieve this, the parties delivering these events need to define a process of communication between the developments through open and transparent platforms. By informing the community of such developments, allows them to make decisions which

can help them to plan how to avoid the congested or under construction areas. In addition, this would allow local utilities to optimise opportunities to inspect any underground assets whilst they are exposed limiting the ground breaking disruptions to a minimum.

Well run communities have authorities or government departments information hubs which can collect, collate and distribute insightful information to the necessary bodies so that a rapid response to a situation can be carried out or observed. By having this centralised location of data and information generation, it makes it clearer FOR ALL how certain actions could then impact





all the community. To assist further with this, as long as the information passed meets regulatory constraints or acceptability, this can then be used through public and private partnerships to allow the community to flourish.

Furthermore, this can help organisations within the community to address issues, provide a higher quality service and ensure that the community's essential services remain well run despite the changes or any potential adversity within the region. Efficiency however, relies on greater connectivity, supporting the argument earlier that **“technology can and does have a key part to play to support the people within your community”**.

As a community then starts to develop and grow, this develops an increased probability on mobility and a greater need by those moving for an accessibility to information.

Herein, lays a possible risk to your community. With the continued growth of your community through its greater efficiency, comes a greater investment requirement for informational needs and for different modes of delivery to improve both social and economic mobility. After all, as the community grows and looks to create greater revenue and investment for its area, it is imperative that the infrastructure of communication and accommodation meets this demand. Having a successful and affluent community, brings with it environmental, economic and public health challenges but finding the right balance with this against the enhancement of the area to create one rich in innovation and intelligence creates community wide integrated systems and the first signs of becoming Community SMART.

#### **Livability – Your Quality of Life Matters**



“Communities Thrive when they are Proactive”. Having this foresight and positive attitude means that the feeling within is one which is looking to stay ahead of any problems and that when they seek to resolve a problem, they look at long term, sustainable solutions and not the simplest or quickest fixes.

With this approach and with a strong view towards longevity, the area thrives through the avoidance or the restrictions that can come through infrastructure fatigue. Changes are made when they are needed to be made and are always made after a thorough evaluation and a clear understanding of the added value this change will bring to the community. For example, if the age of the population in the community rises and the demand for more homes with assistance is identified, then the changes to the community's priorities need to be addressed. Equally, if the average age of the population starts to move towards the millennials, then a change in entertainment or virtual cloud based needs may be required.

The attitude is a strong positive one which says yes to change, but only when it is the right change and at the right time for the community.

This strength comes from the longevity view that it takes and through its approach to creating the previously mentioned sustainable solutions. A community's livability is about so much more than the way it looks. Livable communities have to wrestle with the multiple priorities placed upon them, to reduce congestion, to safely manage water and waste and to continue to create the right infrastructure for a continuous and sustained success.

The community's ability to proactively assess where the relevant infrastructure repairs are necessary and how to balance these against other opportunities to improve the living conditions FOR ALL, where no one is constrained or unfairly treated because of their race, religion, colour or creed is a battle that is fought on a daily basis to create such a harmonious environment.

**“The community and the people within it are always viewing long term solutions and not the short term gains”** and this strategy creates a Smart Community which is stable and where everyone associated with it, feels valued.



By having the community support itself by helping with the approach to change is the best way of problem solving with structure by integrating local experience with external expertise to assist in managing the requirements and the needs of infrastructure for the community at large. This vibrant and transparent environment opens up information to more people helping to expose or reveal critical issues and promote livability in a more timely and cost effective manner.

### **Health – Bringing Renewed Life into the Community**



Community health touches on many different services, departments and non-profit organisations, by interacting for the benefit of the community. Each of these departments have to “Learn to work together with the Community’s Support to generate justified decisions during planning and at times of emergency or crisis”.

Whether they are responding to an outbreak of a disease or safeguarding against the threat of a future one, this approach and their ability to collaborate is essential to any success to

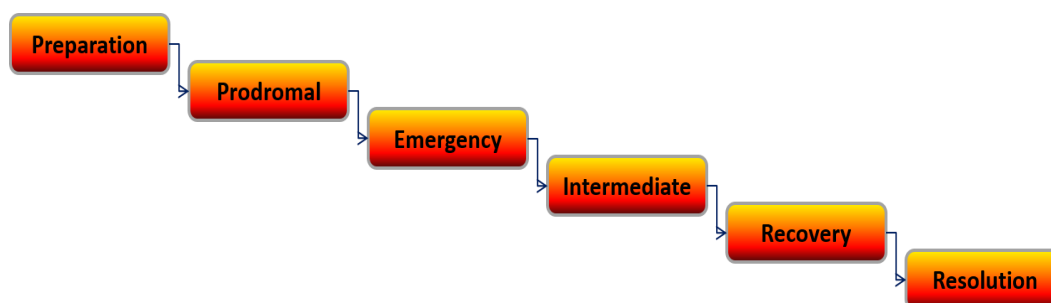
repel the risk to the health of the community.

**“By being able to work together to predict future illnesses before the community become sick, by finding transmission patterns by visualising real-time and historical threat data, these departments remain on the front-line to keep the community healthy, happy and enables a future of safe and stable growth”.**

By developing these shared insights across and central platform, this ensures that multiple audiences can stay readily informed and instantly prepared to fulfil their routine and emergency roles as needed. The community authorities can then reinforce this approach by establishing protocols at certain key moments or events so that should certain conditions occur or situations arise, there is clear direction by those that are viewed to give the community guidance. This builds confidence not only in the government authority but in the community as well, knowing that if the worst does happen, someone is there to provide help, support and guidance.

One such approach that has been used and published previously, is from the document “Project Management in the Danger Zone” which explains the six steps of the Faulkner Disaster Lifecycle from the preparation and pre-disaster stages, through the event and then helping the community rebuild post disaster. This structural approach is already being reviewed in certain parts of the Middle East being utilised against flooding and wind disaster.

Having such a formal approach leads to the government body within the community being able to trust its emergency planning techniques, testing them regularly and visibly to the community public, demonstrating proficiency and competence.



### **Prosperity – Investing in the Community**



“Communities prosper when they work together, supporting each other to identify market trends that can attract investments”. Whether they are appealing to potential residents or businesses, economic development planners help



communities grow, by emphasising the importance of the right investment in the right location to maximise its worth.

In competitive environments where neighbouring communities or cities vie for capital improvement funding, tourism and much needed revenue, the economic planners must demonstrate the potential for a clear and substantial value of a new development site and commercial property. To be truly successful, they must demonstrate to the community, government bodies and local commerce sufficient relevant and accurate data to entice its citizens through insight into the changes that such an investment can make to their lifestyle and demographic characteristics.

To better prepare a community for prosperity, identifying and connecting the right investors and entrepreneurs to the right information so that they have time to recognise and implement such investment opportunities. By having the right people understanding the changes to the needs and demands of the community, this can encourage those willing to invest by offering this information to obtain greater visibility of the opportunity being offered. This will then avoid chance, or blind investment into the community based on hope rather than fact leading to regular foreclosures and reduction in the attraction of the community's home. This regular turnover of business can create disharmony and start to affect house prices and the popularity for mobility into the area, instead in some cases, causing a prolonged exodus.

**“Community prosperity means FOR ALL and not just for the few, creating an environment of growth that does not discriminate against individuals, therefore reducing or in some cases eliminating poverty within the community”.**

This however can only be achieved with Financial Sustainability Planning. The planning needs to be viewed both on a long-term and a short-term basis. The community needs to know their finances for six months to a year, but then to challenge itself to plan where it will also like to be in five years.

Financial sustainability planning is only one part of the overall plan, allowing the community to concentrate on their real purpose and to focus on its achievements. The community should never lose focus on why it is there and what it stands for, it should never lose its traditions or its identity. Of course it is important to take care of the finances, after all, as I was told in January 2017 at a sustainability event in New York, “You can't do anything with empty pockets”, but never forget what you are trying to achieve as a community and for the community.

#### **Sustainability – Building a Community for Future Generations**



To maximise sustainability, communities must connect with their government bodies to work together to fight deforestation, uphold the community values and health and to preserve the living standards FOR ALL.

When it comes to the urban planners and designers, they should use technology to balance competing interests, to fuse data from numerous sources and to communicate their intentions for the community across multiple audiences.

However, one thing is as true today as it always has been, “If you want to pass a message to others, understand your audience”. Too much technology can be equally as bad as not enough, so know who you are sending what message to with what media.

Those sharing the messages should be able to acknowledge their own personal style of communication and then understand how that impacts the recipients (benefits/risks, why that kind of change is necessary now, what are the consequences in the future if the change will not be implemented etc.).

**“Only when the sender can actively listen through effective feedback can they then adapt the style or media of the communication so that it becomes appropriate to the situation and to the needs of their audience”.**



By incorporating a strong geo-design into any planning, communities become better positioned to provide their citizens a more sustainable future without compromising the usage or the quality of its land, water or air.



One such approach that has been heavily invested into the Middle East, is the CitySMART™ model designed by M R Project Solutions Ltd. When presented last August at

the UT Dallas Symposium, one of the fellow keynote speakers described it.

“CitySMART is a model that has been designed and created to improve the performance of work based competency which covers projects, businesses, supply chain management, event management and media management to enhance how a city performs and how it can achieve more for less within the Eastern Province Municipality of the Kingdom of Saudi Arabia.”

With the use of the Smart Modelling Concept, communities have the opportunity to benchmark their achievements and to then measure progress as they implement change. It can clearly assist each community with the recognition of its successes and identify where further improvements need to be made.



By utilising the Smart Metrics approach to change they can measure and then mature their approach in the six separate areas of community sustainability focusing on what matters to the community, when it matters.

The six areas of measurement are:

- ❖ Community Organisation Sustainability
- ❖ Community Development Sustainability
- ❖ Community Financial Sustainability
- ❖ Community Governance Sustainability
- ❖ Community Supply Chain Sustainability
- ❖ Community Environmental Sustainability

Through the metrics matrix of 242 assessment points, each community can grow and shape itself into the community it wants to be using the maturity model previously published within the PMWJ.



**So where would a community start and how simple is the model to integrate into their lives?**

After you have obtained the model and its relevant supporting documentation, the community has to establish where it currently is and create firstly its baseline but then, set its goals for achievement. As the community drafts its original Strategic Smart Plan, it will begin to identify the approach it wants to take and how it chooses to optimise efficiency and to minimise its waste. No-one comes in and tells you what your community should be doing and there are no methodologies, just a simple framework, governed by you, implemented by you and delivering your needs.

**“The secret behind a community, lays within the community and its people”.**





By bringing people together the community and by understanding what they want to do for their city, town, village or business this increases buy-in and the potential for further investment for the future generations.

After all the technology is taken away, after all the measurements have been taken and progress recorded, the citizens of the community, will do what the citizens have always done best, they remember to Think SMART.

In closing, there is a simple and straight forward message for those that pursue the Smart future with Smart Cities and Smart technologies. Remember, a city or a simple community can be SMART without hi-tech instruments and an endless and seamless connectivity. These are tools to support the city, not to become the city.



A city or any form of community is made up of individuals who live there, those that visit and the way that they work together, for the greater good. It is the people that are impacted by their own living environment and so it is those people that should identify and drive the change making them feel

individually responsible and committed to their community. Whether the end goal is increased safety, greater efficiency, a higher quality of livability, stronger health, greater prosperity or finally a fresher and cleaner environment, being truly SMART as a community is about those that live there.



***Think SMART, Act SMART, Live SMART***