Good morning Chairman King, Prof. Mathew, Distinguished guests, ladies and gentlemen,

In metropolitan cities like Hong Kong and where our overseas guests come from, engineering assets are commonplace. Together they shape the way we live. With the objective to optimize performance, minimise cost and mitigate risk over the entire asset life cycle, it is incumbent upon us to realize the best value of engineering assets in a structured and predictable manner.

The Electrical and Mechanical Services Department oversees the safety regulation of electricity, gas, lifts and escalators, amusement rides, ropeways, tramways and railways, as well as enforcing energy efficiency ordinances in Hong Kong. Apart from that, we also provide consultancy as well as operation and maintenance services for government and statutory bodies. With a wide portfolio of engineering assets ranging from incubators for the new born to cremators for the deceased, our service is from cradle to grave. To us, the challenge of engineering asset management is not only what to do with the assets, but how to define and realize their best values. Today, I would like to share with you some observations and thoughts from the perspective of public values.

In simple terms, public value is what the public values. In reality, public value is rather subtle but a bit of reflection and soul searching would help make it clear. Let’s take electricity system as an example. Imagine a power interruption here in this conference hall. Without electricity, I would have to shout as the sound system no longer works. Without electricity, the conference would become a dialogue in the dark when all the lighting goes out. Without electricity, it would become warm and stuffy as the air-conditioning system stands still. A world congress meticulously planned and executed suddenly turns into chaos. The dedication and efforts of all those who work ceaselessly would go down the drain. The convention centre will hopefully offer to refund the rental and other charges but it can never make good the damage done.
Here in Hong Kong, we fully appreciate the value of a stable power system and our electricity supply reliability is 99.999 percent. In 2011, we experienced an average 2.6 minutes power interruption, as compared to 19 to 40 minutes in New York, Sydney and London. While we enjoy a reliable electricity supply, we do not forget the blackout in North America in 2003 when more than 50 million people were affected. People’s livelihood and activities of all kinds, including essential services were seriously disrupted. The total economic loss was estimated as much as US$10 billion, not to mention its social impacts.

Since the second industrial revolution in late nineteen century, electrification has become a way of living. However, electricity comes with a price apart from the tariff we need to pay. According to the International Energy Agency, electricity generation accounts for 41 percent of global carbon emissions. In 2012, Hong Kong’s power sector alone produced 29 million tonnes of carbon dioxide. With cleaner fuel mix, our carbon emission intensity has dropped 10 percent over the past five years. At the same time, emission of sulphur dioxide, nitrogen oxides and total suspended particulates were also reduced. Just weeks ago, the World Health Organization has classified outdoor air pollution as carcinogenic to humans. Apart from lowering electricity cost and minimising power outage, an effective, clean and green asset management also helps enhance public health while combating climate change. These values go beyond the physical limit and transcend borders at regional and global level.

In Hong Kong, when people go beyond the border of their age limit, 90 percent of them made their final journey through cremators operated and maintained by us. In terms of asset management, the cremation process has to be efficient, environmentally responsible and cost effective. More than a decade ago, cremators installed in Hong Kong were only able to process one body at a time. In order to cope with the increasing demand for cremation, they were replaced by cremators with double incineration chambers that allow sequential processing of two bodies at the same time. The new cremator has enhanced throughput with better and advanced emissions control. The value of the replacement is self-evident.
However, lurking behind this new cremator was a curse untold and unknown to us. After months of smooth operation, disaster struck. The cremains or bone ashes of two deceased persons were found mixed. Painstaking investigation revealed that the cremator display did not reflect the actual progress of the cremation process. Instead, it displayed the projected progress accordingly to time lapsed. When the cremation process stuck and the clock kept going, the displayed information became erroneous. Sadly, the separating plate between the two cremation chambers was opened inadvertently, resulting in the mixing of cremains from the two chambers.

The families of the deceased were understandably frustrated in anguish, and we were criticised relentlessly by the community. We failed to live up to public expectation and we critically reflect upon ourselves. After all, there is no better way to repent than by safeguarding all future cremations from mixing up. We worked with the cremator manufacturer to rectify the design discrepancy. We also critically reviewed the entire cremation process and procedures so as to reinforce checks and balances into every step of our operation.

It was indeed an indelible lesson. We came to realize that the public value of cremation was much more than efficiency, cost and clean emissions. With remorse and determination, we initiated a service culture reform, with the objective to brainstorm on the purpose and value of our work, and their impacts upon the public. To this end, each and every of our service units was asked to work out their service values and code of conduct. Through service values, we sought to inculcate a clear vision and value of our service in the heart and mind of our staff. In the case of cremation service, the service value is to treat the deceased with due care and respect so as to make their departure graceful and with dignity. At the same time, we offer their families peace of mind. Since the adoption of service value, a decade had passed and there is not a second case of cremains mixing.

Service culture reform was subsequently extended to cover all our engineering services, including those for hospital and airport for example. For public libraries, our service value is not just operation and maintenance of lighting, ventilation and air conditioning systems,
but the provision of a comfortable and refreshing learning environment. For ambulances, our service value is not just vehicle repair and maintenance, but enabling timely patient transfer for necessary treatment.

The service value captures the essence of public value for each of our engineering services. It cascades from directorate staff through managers to the frontline in a language that is understood by all. Like the conductor of an orchestra, service value pulls everybody into alignment and synchronises every move. It guides us through difficult situations and at times when we are making tough calls. It is the genetic code that we must possess on top of the necessary knowledge and skills.

Now, let us go back again to year 2003 when Hong Kong was besieged by an outbreak of Severe Acute Respiratory Syndrome, or SARS in short. At that time, you would find anxiety and silence throughout the city instead of the bustling vitality and vibrancy. Tourists were warned to stay away from Hong Kong and locals were asked to stay away from the crowd. As a result, parks, streets and places where people used to gather were left empty and deserted. At that time, the SARS virus was unknown to the medical world, and the pandemic rocked and shocked the city into panic. At that time, it was a custom to wear a face mask and to sterilise surface areas touchable by people. Hand shaking was not welcome and coughing was taken as an alarm and treated with extreme caution. In the end, SARS claimed the lives of 299 people in Hong Kong and many more around the world.

During the SARS battle, many people fled Hong Kong but not our healthcare colleagues. They selflessly and courageously fought on. Being the engineering assets manager for public hospitals, we stood guard and supported our healthcare comrades. Knowing the spread of SARS through droplets transmission, we stepped up the inspection and cleansing of air-conditioning and ventilation systems. We installed high performance filters and negative pressure systems to minimise cross contamination within hospitals. Outside hospitals, we collaborated with academia, engineering and medical teams to build a real size hospital ward in a university laboratory to test and validate the design of air-conditioning system for SARS wards.
During peace time, the economic model of asset management works well. But at time when lives are at risk, financial consideration has to be preceded by public values. During the SARS battle, we went all out with little concern about cost and return. We deployed all possible means to help combat the SARS onslaught. Our team was not intimidated during the battle. But despite taking all the necessary safety precautions, three of our colleagues unfortunately contracted SARS during their duty call. To say that our colleagues were undaunted by the fear of death would be an exaggeration, for they have families and loved ones too. They were well aware of the risk and yet they knowingly and willingly kept marching on because the purpose and value of their work were deeply rooted in their hearts.

American author, Helen Keller, once said: “The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart.” Surely, this is equally applicable to engineering asset management. And with the heart we create values.

With this, I conclude my address and thank you for your patience and attention.

30 October 2013