- Good morning and welcome to this webinar. I volunteered to be your watchdog when this coalition first formed back in June 2015. NZIQS agreed to be a Trustee to the coalition and monitored its work rather than be a participant in the writing of the standard. We met monthly via telephone link with other trustees in our timezone. We voted a leadership team in early on and established a standard setting committee, (the writers of the std). By the time of the PAQS conference in Christchurch in 2016, a draft of the standard was established and I was able to meet a number of the trustees who were part of the PAQS. By November 2016 the standard was completed and launched in London for industry and peer reviewing. By the time of the PAQS conference in Vancouver in August 2017, the Coalition was able to officially launch the completed standard as approved by its stakeholders and industry.

- In the past, projects have generally been built to local standards and costing rules. Whilst this has worked well, more and more, international clients, bankers and worldwide consultancies have been calling for an internationally recognised standard for the cost of anything building or infrastructure wise. Our world in recent times has fast become a small global industry and it has become time to meet the challenges of our industry.
Today the construction and infrastructure sectors are about as international as you can get.

Projects are funded and owned by foreign investors; and projects are delivered by international and multi-disciplinary teams.

[This is an image of what the UK Government sees Hinckley Point Power Station to look like when it is delivered. It’s a project which is built in the UK, funded by Chinese investors and owned, operated and constructed by French company EDF – it is an example of the many dozens of international projects which get delivered today].

New Zealand is seeing more PPP projects that are of similar make-up.

We have to ask – are our domestic standards relevant and ‘fit for purpose’ in modern times? No question that they are quality, but just how applicable and consistent are they?
ICMS coalition started in May 2015 – to create global consistency in project cost reporting.

Agreed to work collaboratively and to ensure a focus on the greater good.

Coalition has grown from the initial meeting to now represent most of the world. Today, we’re 46 members and growing!

The Coalition represents all of the major professional and standard-setting bodies in this sector, from all around the world.

NZIQS has been involved from the start and is a Trustee

Property Institute NZ is also now a Trustee.
We knew we needed to agree some guiding principles from the start. Principles which would allow us to overcome barriers that defeat other initiatives like this – financial; ownership; politics!

We agreed a common goal and we stuck rigidly to it.

It worked!

BUT we also agreed that we were not interested in running an academic exercise; it needed to have real life impact and application.

We worked with businesses and industry throughout, so that today we have more than a dozen partner organisations that have already committed to using the standards in their work. Many, many more will follow.
Partner organisations are volunteering to commit to the standard including Exactal

They are making a clear statement that they will use ICMS when providing information to their clients

This is creating a demand for ICMS and for the professionals of the associations here, who will be at the front end of implementing these standards

Some are already applying the standard in their contracts and terms of engagement.
Why are these standards important?

Knowing what is, and what is not included in the construction cost of a project is vital to:

- Understanding **how it compares** with other projects
- Accurately assessing **value-for-money**
- **Assessing and benchmarking** project construction costs
- **Reporting** national and international statistics on construction output

Read the slide
Have a look at some of these international project blow-outs. It is purported that had these projects been able to be compared cost-wise to other international projects, better management of costs would have prevailed.

There are always lessons to be learned from comparing previous work. The more comparisons can be from the same data, the more reliable they will be.
This slide summarises the issue of project disputes via regions of the world. Better comparable information on cost will aid in reducing disputes, time over-runs and cost blow-outs.
In New Zealand we use a guide for cost allocation called elements estimation. NZIQS has a guide that prescribes where costs should fall and in what basis they are measured in those cost centres. This standard, if you like, generates a system within New Zealand, that various projects can be similarly compared to each other. This standard is generally for building, but has been used on many occasions for infrastructure projects also.

The set out of New Zealand’s standard may differ from other countries, as may the interpretation of the user as to what might be included in anyone measured item. The only way to over-come variance through-out the world, is to use a common standard, with strict ways of interpreting its use and outcome. This is what the ICMS is all about.
Problem:
• Without an international standard we have an inability to accurately compare project construction costs
• Investment risk may not compare like with like and the bankers interpretation of what is included in the project may vary as a result.
• Lack of transparency is overcome by a common standard.

Leading to:
• Under-investment in construction projects where overruns or poor construction standards may result.
• Time and cost overruns are much more likely to occur where misinterpretation can made.
The standard will allow capital cost comparisons to be made across building and civil engineering projects (works). Whole lifecycle costs will also be included if possible, or a firm link developed to allow further work on this subject.

It will:

- adopt universal definitions of construction costs and the associated variables;
- create a single classification system for building and civil engineering projects (works) for use with digital tools such as BIM;
- recommend a consistent data framework for the collation of national statistics;
- be as simple as possible, commensurate with allowing robust comparisons to be made;
- articulate with local standards and the IPMS wherever possible;
- recommend a standard reporting format;
- allow global cost comparisons and benchmarking for global investors, corporate bodies and contractors;
- provide a checklist for international best practice;
- when combined with IPMS, consistent cost comparisons on a per m2 basis; (Paul to expand this)
- provide consistent language and terminologies for the worldwide, and increasingly mobile, profession; and
- accommodate the need for continuous refinement, updating and change.
Benefits and users

At a project level:
Financial institutions, investors, clients, consultants, contractors and the supply chain.

At a national level:
Governments, regulatory and standards setting bodies, and national professional institutions.

At an international level:
Global financial institutions, investors, clients, consultants, NGO’s and global professional institutions and umbrella bodies.
ICMS is being developed in two parts as follows:

**ICMS 1:** Agree higher level cost centres and definitions for infrastructure (with buildings as a sub-set). Link cost centres and elemental headings with both UN ISIC (using ICMS 1) and IPMS (ICMS 2 in terms of building cost/m²); and

**ICMS 2:** Define construction cost and harmonise building elemental headings and definitions at a project (management) level. Prepare a relationship map linking ICMS to IPMS.
NZ
In a New Zealand sense the standard will mean investors looking at opportunities within our shores will be able to compare capital investment costs, life cycle costs and risk to their known investment bases. Currently they would have no idea I would suggest.

Elemental Analysis of Projects
We have a great current standard (not called one, but certainly utilised as one within NZ). When we compare the setout of our current standard we find that the ICMS setout is almost identical. This I believe is because when we created our standard many moons ago, it was based on the UK standard of the time. Since then the UK standard has travelled the world as RICS have morphed its way around the world and when the SSC looked for its logical starting document, the RICS standard was used. We will look at this in a minute.

Standard Method of Measurement
Very soon NZIQS will introduce our new Standard for measuring schedules/bills of quantities. It is an adoption of the Australian method of measurement, which bears a remarkable similarity to the UK SMM7. Those familiar with these standards will immediately realise that data sharing between elemental costed projects and projects measured for tender purposes using the UK or Aust standard are more easily compared.
What do the standards cover?

- High-level cost classification
- Buildings and civil engineering
- Definitions, inclusions and exclusions
- Four level taxonomy (classifications)
- Key cost drivers
How will it be used?

- Cost reporting and data collection
- Investment and risk analysis
- Benchmarking global costs
- Informing ‘should cost’
- Procurement evaluation
- Auditing
- Dispute resolution
Who will use it?

• **Coalition organisations** have signed the Declaration and committed to implement the ICMS
• Many **practitioners** will incorporate ICMS within existing standards and guidance.
• **Governments, NGO’s and businesses** will lead adoption of ICMS in the marketplace
• **Funding agencies and institutions** will require all future requirements to be assessed based on ICMS
• **Technology vendors** for BIM and other software
• **ICMS Partner organisations** will lead market adoption.

ICMS
How does this affect us in NZ?

- Elemental Analysis
- Standard Method of Measurement
- Coalition partners (NZ companies?):
  - Aecom
  - Exacal
- BIM
- NZ Press Release to industry media this week
The SSC will at our next meeting evaluate its members, reset the number of properly qualified practitioners able to understand life cycle costing and its long-term effects etc., This new committee of ICMS coalition will undertake the development of life cycle costing parameters and at this point, the standard should be completed to stage 2.
- This concludes my introduction to the development of the standard called ICMS.

- We will now spend a minute of two looking at the document you we all advised to copy from the ICMS website. This is the standard. I encourage you all to read this document and understand how it works.

- The introduction, definitions and how to use the standard are to be found on page 5&6. I wont dwell on these as you need to read and absorb these.

- The framework on pages 7-10 give a definition of the overall framework of the standard. Definitions follow on through to page 27, and here we get to the stuff NZIQS members should recognise. Concentrating on pages 28-34, you can see the elements and sub elements we are used to. Some have changed position slightly, but in the main, these are comparable to our existing elemental analysis guide. Over time NZIQS will look to amend our guide to suit the standard.