

### Why is Computational Thinking Education Important as the Foundation for Innovation?

Marjorie Yang, Chairman of Esquel Group

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#### **Learning CTE in Different Ways**







## Technology in the Textile and Apparel Industry

Joseph Marie Jacquard created the first programmable loom in 1801, which became the basis for modern data computation.



#### **Innovators**





#### What is Innovation?

Fresh thinking that creates value.

Innovation should apply not just to invention, but also to problem-solving.



#### CoolThink@JC Mission

"This project is not only about coding and programming but about empowering students to become problem-solvers and creators in the digital world."

> Mr Anthony Chow Deputy Chairman, The Hong Kong Jockey Club November 15, 2016

Training young software engineers?



Embedding computational thinking in children



Helping teachers develop independent critical thinking













#### It is about Empowerment!

Applnventor is not about teaching coding. It is not even about Computational Thinking.



It is about Empowerment.

Professor Harold ABELSON



#### **Empowered Leadership**

# Can we solve global social problems with fresh ways of doing things?

**Esquel Group** 



#### 2 Problems We Try to Tackle: Climate Change and Wealth Gap







#### Out of the Box Thinking – Can this be a Factory Site?





#### **Empowering Esquel Group**

First, we must accept that the Boss is not ALWAYS right!





#### Independent, Critical Thinking

Even the Customer is not ALWAYS right

If people hide behind,
"the boss is always right" and
"the customer is always right",
they will not be independent critical thinkers!

They need to feel **empowered!** 





#### **Overcome Fear of Technology**

Why not try to teach 45 year-old women technology!











#### **Case Sharing 1**

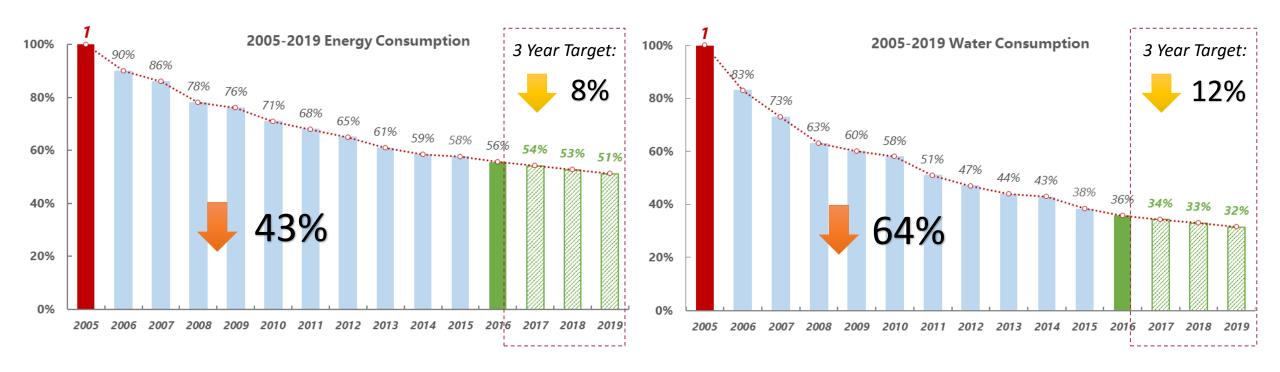
### **Esquel Carpool**



#### Sustainability – Energy and Water Consumption

Responding Actively to Environmental Challenges

Building on the significant reduction in energy and water consumption achieved over the last decade through technical innovations and effective management, Esquel is set to continue its efforts in both areas with an ambitious 3-year target.





#### **Esquel Carpool**







#### **Carpool and Carbon Reduction**

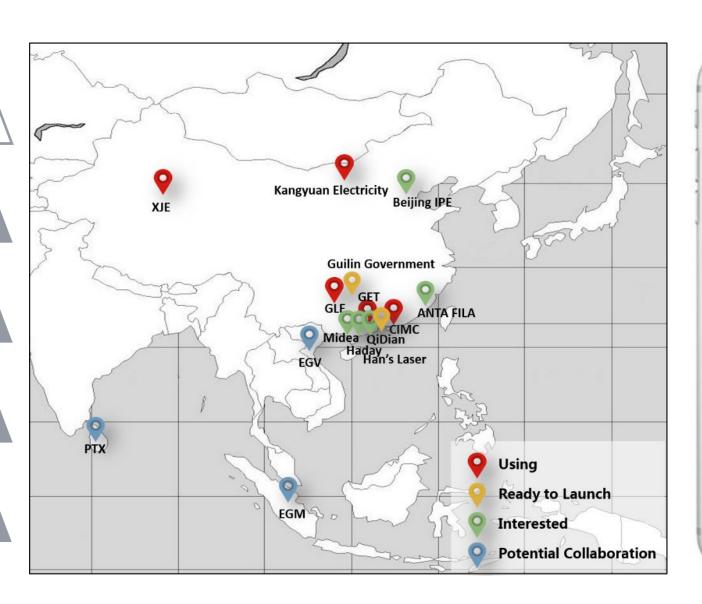
2016.6.23-2017.6.5



107,274 Km

10,727 Liters

24.7 Tons







#### **Innovators**





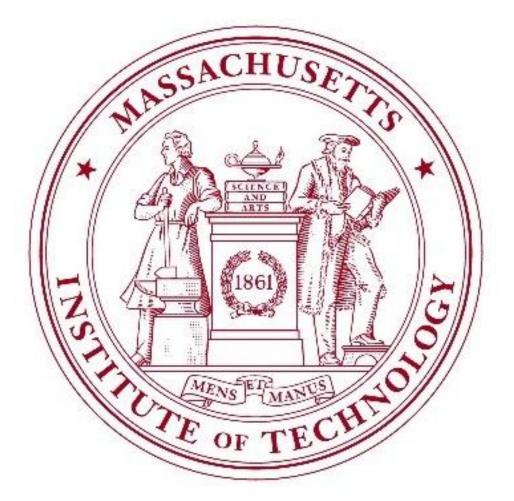
#### **Innovators**





#### Mens et Manus - Mind and Hand

- We cannot send everyone to MIT, but we can try to teach them computational thinking
- How can we make them feel
   Empowered ... without having
   gone to the Boot Camp on the
   Charles?





#### Thank you

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