CENTER FOR GLOBAL PUBLIC SAFETY

Industry Stakeholders’ Forum
April 30, 2018
Agenda

- Reasons
- Mission & Vision
- Five Year Strategy
The evolution of our modern global urban environments presents numerous and developing threats to our public safety from both natural and human-made causes.
How do we as global citizens improve our resiliency to the broad range of probable catastrophic situations?
Observations

Disasters by their nature are complex interdisciplinary problems that cut across jurisdictional and geographic boundaries.
Vision: A Global Leader in Creating a More Resilient World

With an initial focus in the key areas such as:

- FIRE
- WATER
- FOOD
- EMERGENCY RESPONSE
- TRANSPORTATION
To develop innovative approaches and relationships with knowledge development, transfer and implementation that results in the impactful resolution of complex safety problems and more resilient communities.
Mission

World-wide safety is our focus

- Research and innovation
- Training and education
- Partnering with industry, government, academia and NGO’s
The Distinction of WPI

- Approaches problem solving by blending theory and practice
- Project-based education model for over 40 years
- Existing global footprint – 46 project centers provides global context
- Unique expertise in academic areas
- Produces engineers best prepared to solve real world problems
- Purpose-driven education and research for local/global impact
Tsinghua University – Beijing, R.O.C.

- Internationally influential Institute of Public Safety Research
- Support of the Chinese National Center for Disaster Management
- Expertise in resilient systems for infrastructure, early warning systems, and other aspects of Smart Safe Cities

Center for Global Public Safety: 2018
Phase I: Initiate  (Until Sep. 2017)

- Presidents Leshin and Qiu envision and launch the Center in 2016
- MQP project with Siemens China on Smart Field Devices for Flow of HVAC Units in Buildings
- 1st Symposium on Resilient and Smart Cities in Beijing at Tsinghua University in 2017
- Graduate student exchange with Tsinghua University in FPE – Prof. Ali Rangwala
- Supporting WPI PhD ME Fire Resistance of Geo-polymers – Prof. Jianyu Liang
- Initial Center funding secured from JENSEN HUGHES, Lion Inc., Mickey Reiss and anonymous donor
Phase II: Growth (Oct 2017 – Sep 2018)

- Hiring of Administrator and securing space
- Tsinghua PhD student working w/WPI Prof. Rangwala will present at upcoming US Combustion Conference
- Awarding of CGPS Seed Grants
- UAE initiatives
  - Retained local consultant
  - Khalifa University
  - UAE Civil Defense
  - American University of Sharjah (AUS)
- CGPS Reception on March 8 on WPI campus
- Industry Stakeholders Forum at WPI (April 2018)
Phase II: Growth (Continued)

- Populate CGPS Advisory Board
- ECE TA w/Prof Huang to work on 3D model area for Smart Fire Truck Project
- 2 WPI IQP teams at Tsinghua (Summer 2018) Smart Fire Truck Project Liang/Huang
- 2nd CGPS Symposium (at WPI, Sept 17, 2018)
- WPI ME PhD Student will conduct research at Tsinghua summer (2018)
- Establish relationships with Government Agencies in the Public Safety Space
- Continue to fundraise
Phase III: Scale & Sustain (Sep 2018 – 2020)

- Expand opportunities with industry engagement
- Build on Seed Grant research
- Establish expertise in key areas of global safety
- Deliver *Global Safety Index* (risk indices by country)
- Formalize joint WPI/Tsinghua MS/PhD and research programs
- Functioning BS/MS and certificate program in FPE with Khalifa University
- On-site implementation of project-based learning at AUS
- Continue to fundraise and recruit members for CGPS
Phase III: Scale & Sustain (Continued)

- Scaling of **research** and **innovation** opportunities at Tsinghua, Khalifa, UAE Civil Defense and AUS

- Annual CGPS Symposia with academic and industry partners

- Target other strategic universities (Latin America, Africa) for expanding the BS/MS and certificate program model

- Establish sustainable funding model (blend of membership, philanthropy, and group funded programs)
Our goal:

Within 5 years, to have established a global network that is delivering impactful results in public safety for communities across the world in demand-driven areas such as fire, water, food, emergency response and transportation.
Questions

THANK YOU!

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