MINDING BLUE PACIFIC FUTURES 2030:

NEXT GENERATION SKILLS FOR INCLUSIVE PROSPERITY IN AN INDUSTRY 4.0 WORLD

Dr. Claire A. Nelson

the FUTURES FORUM

IMAGINE BLUE PACIFIC 2030

The Pacific Times
June 26, 2030

Tele-Health

Global Insurance giant SAGICOR announces its partnership with the PACIFIC HEALTH ALLIANCE to provide cyber insurance for tele-medicine systems at over 150 primary care health care centers across the Pacific in the next five years. The state-of-the art Surgery Centers are being established through a partnership with Digicel, and CARICOM TeleHealth Systems which provides services including robotic surgery to currently approximately 1 million people across the Caribbean region.

IMAGINE BLUE PACIFIC 2030

The Pacific Connection
Virtual Edition…
June 26, 2030

The Pacific Blue Economy Alliance announce the expansion of The Pacific Ocean Decision Theater at the Pacific Center for the Blue Economy funded by the Pacific Islands Forum Secretariat (PIFS) and the Pacific Ocean Business Council. The Decision Support System which now maintains integrated domain awareness across all the Marine Protected Areas in the Pacific, as well as the EEZs for all 14 members of the PICTs, will now begin a program to map the Pacific Ocean Floor.

IMAGINE BLUE PACIFIC 2030

Pacific News Now
Virtual Edition….
June 26, 2030

Pacific Women in Science & Engineering (WiSE) announces its success in meeting and passing its target of graduating 500 women scientists and engineers from university or college by 2030. The WiSE program which started in 2020 recruited and supported women of all ethnic backgrounds in science and engineering and in partnership with industry has provided over US$10M in labs & Equipment, scholarships and loan guarantees to its members and stakeholders from K-12 through university and college programming.

THE FUTURE IS EXCITING! ARE YOU READY?

- Welcome To 2030
- What is the Future We Want
- How Might the Future Be Different
- How to Meet the Skills Challenge
- How to Get Ready For the Future We Want

THE FUTURE WE WANT

*"Our Pacific Vision is for a region of peace, harmony, security, social inclusion, and prosperity, so that all **Pacific** people can lead free, healthy, and productive lives. We value and depend upon the integrity of **our** vast ocean and **our** island resources."*

2014 PACIFIC FRAMEWORK FOR REGIONALISM

The Future We Want

Sustainable development that combines economic, social and cultural development in ways that improve livelihoods and wellbeing and use the environment sustainably

Economic growth that is inclusive and equitable

Strengthened governance, legal, financial and administrative systems

Security that ensures stable and safe human, environmental and political conditions for all

PACIFIC REGIONAL FRAMEWORK

HOW MIGHT THE FUTURE BE DIFFERENT

"Optimism is a strategy for making a better future. Because unless you believe that the future can be better, you are unlikely to step up and take responsibility for making it so."

Noam Chomsky

THE FOURTH INDUSTRIAL REVOLUTION

Is a fusion of advances in artificial intelligence (AI), robotics, the Internet of Things (IoT), 3D printing, genetic engineering, quantum computing, Big Data, Machine Learning, Blockchain Technology, materials sciences, Nano-technology and other technologies.

Is a way of describing the blurring of boundaries between the physical, digital, and biological worlds.

Is paving the way for transformative changes in the way we live and radically disrupting almost every business sector.

the FUTURES FORUM
Sagient ideas for sustainable futures

HOW FUTURE OF AGRIBUSINESS MIGHT BE DIFFERENT?

Bio-Meat Factory Engineers

Urban Agriculturalists – Vertical Farming

Swarmbots & Drones /Operators & Managers

Aqua culture

Insect Proteins as Animal Feed and Food

Climate Resilience Finance

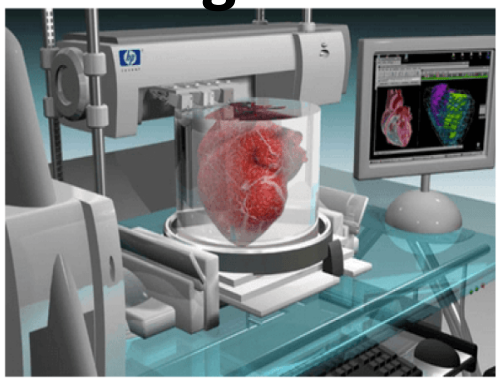
Hemp/ Cannabis

HOW FUTURE OF HEALTH CARE MIGHT BE DIFFERENT

Robotic arms

Mobile health (mHealth)

3D bio-printed organs



From Fiction to Reality

Virtual reality For pain relief

Internet of Things (IoT)

Artificial intelligence

HOW MIGHT THE FUTURE OF INFRASTRUCTURE BE DIFFERENT?

- Floating Condos
- Solar Electric Car Charger Stations
- Road Guidance Sensors
- Micro-grids and energy storage technologies
- Space-based solar power satellites
- Autonomous vehicles in closed communities
- 3D Printed Construction
- Waste to Energy Re-Generation Standard
- Tidal Energy
- 6G & Holographic ITC

HOW MIGHT TOURISM BE DIFFERENT

Augmented and Virtual Reality (AR and VR):
e.g. for content marketing or to enhance the customers' experiences airlines using VR technology to show travellers the cabins in advance, in order to increase ticket or ancillary services sales.

Artificial Intelligence (AI): The ways in which it helps the industry can be classified into three major categories: Machine Learning, ChatBots or TravelBots, and Robots.

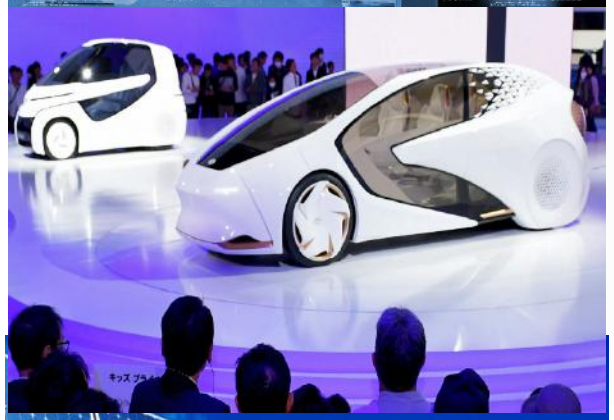
Internet of Things (IoT):
e.g. IoT @ Lufthansa to reduce anxiety and stress levels associated with lost bags. Passengers can track their baggage via a link found on their mobile boarding pass in the Lufthansa app.

Voice Technology:
Customers search through voice interactions, e.g. hotels with voice-activated devices. e.g. W, Kimpton Alexis Hotel, and Westin Buffalo.

Wearable devices:
to offer customers a more personalized and united experience e.g. Disney a wearable, customizable RFID-equipped MagicBand, which connects to the theme park infrastructure, to reduce waiting times and track guests' locations.

INDUSTRIES OF THE BLUE PACIFIC FUTURE

- Bio-Factories
- Cyber Security
- Electric Mobility
- Internet of Things
- 3d Printing
- Sea Bed Mining
- Agribusiness



- Alternative Energy
- Tele-Health Care
- Online education and training
- Crypto-Currencies
- Blue Biotechnology
- Marine Systems Management

JOBS OF THE FUTURE

Mobility platform manager

Criminal redirection officer

Commercial Drone Pilot

Smart-Building Technician

3D-Printing Technician

Marine Spatial Planner

Blue Biotech

Augmented Reality Developer

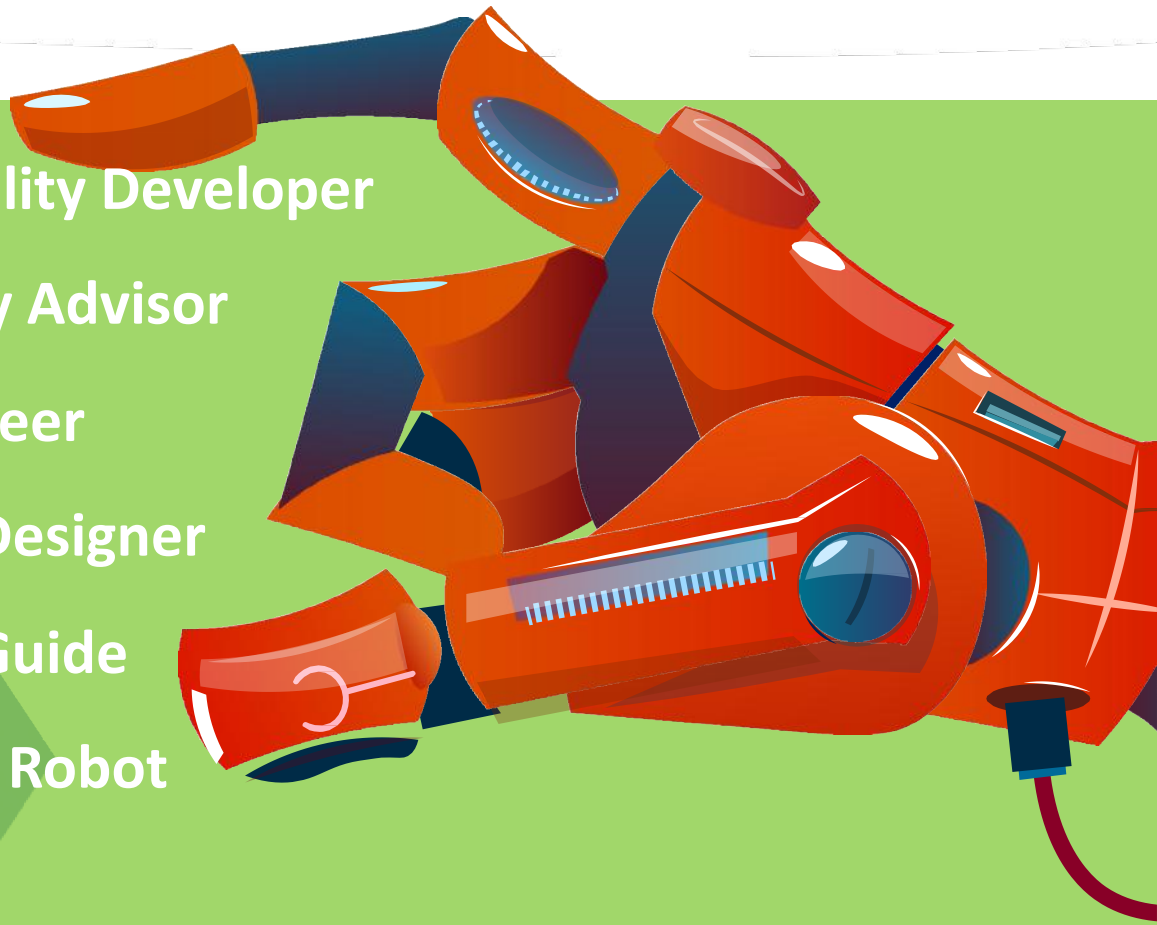
Personal Privacy Advisor

Nanotech Engineer

Virtual Reality Designer

Space Tourism Guide

Sea Bed Mining Robot Technician



the FUTURES FORUM
Sagient ideas for sustainable futures

HOW TO MEET THE SKILLS CHALLENGE?

"We need a paradigm shift from the conventional labour intensive and migrant worker-dependent economy to a newly high-skilled and digital-proficient workforce. The answer is a highly ICT-digital-proficiency oriented TVET system with a focus on youth."

Claire A. Nelson

THE FUTURE DEMANDS SKILLS 4.0

Digital Literacy: skills that ensure learners

Virtual collaboration: The ability to effectively collaborate between virtual team members via technology.

Cognitive load management: The ability to filter information by importance and maximie cognitive functions.

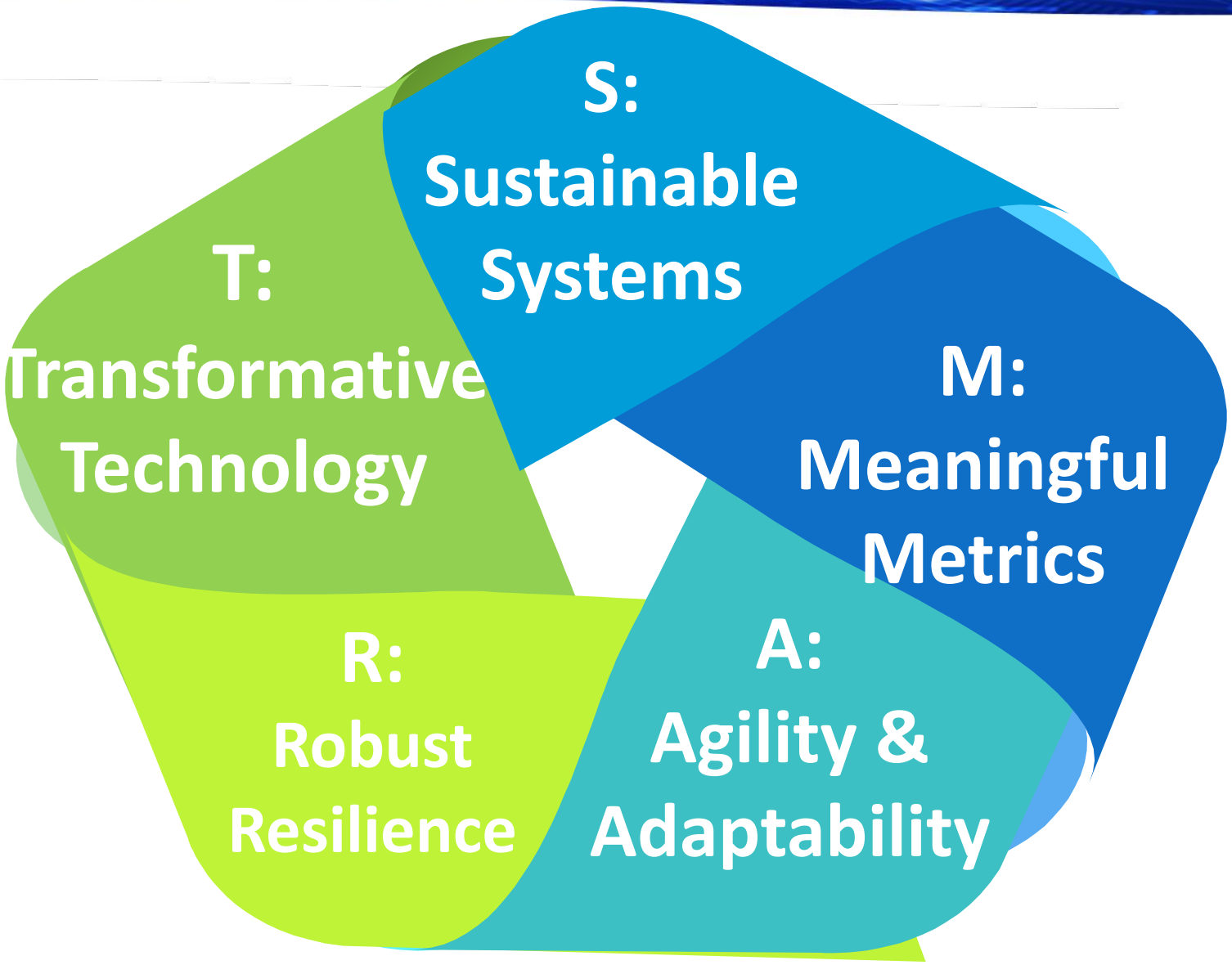
Computational thinking: The ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning.

Design mindset: The ability to represent and develop tasks and to focus on the work process to achieve the desired outcomes.

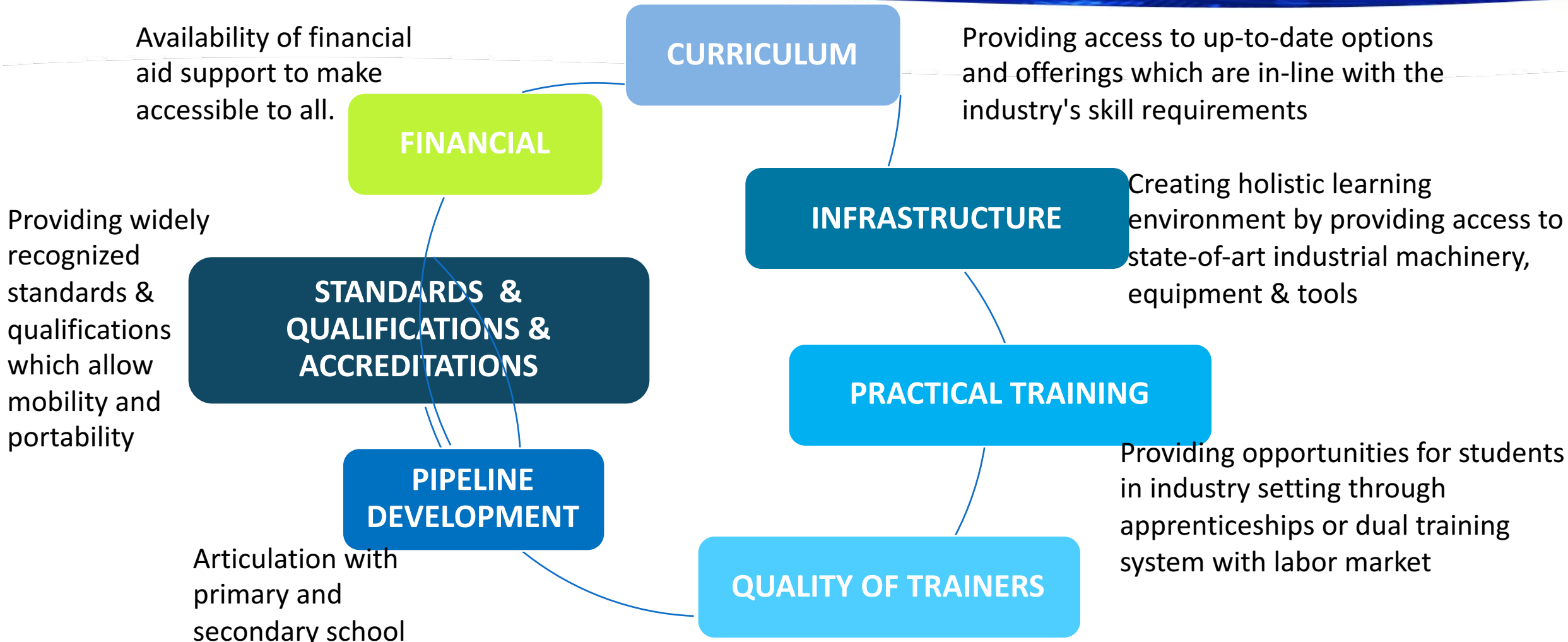
Social intelligence: The ability to convey concepts to others deeply and directly and be able to sense and stimulate reactions.

Adaptive thinking: Demonstrating the proficiency of thinking and coming up with solutions, and the ability to determine the deeper meaning of what's being expressed.

SMART FUTURES



SMART FUTURES: S- Sustainable Systems



SMART FUTURES: M-Meaningful Metrics

Can we create metrics that measure what matters at all levels-- individual, local national, regional?

Establish Qualification Frameworks (Regionally Accredited) providing multiple pathways, horizontal as well as vertical, among vocational education, general education and technical education based on a shift from input-based education to outcomes based/ competency education

Create metrics that value and codify traditional knowledge of the ocean endemic to the PICTs' cultures

Create inclusivity index that measures all aspects of diversity.

SMART FUTURES : A- Agility and Adaptability

Can we continuously create innovation in system institutions and continuously improve the quality of services based on ongoing review of the competencies needed for successful systems operations?

Can we build in adaptability e.g. the ability to test and experiment quickly and often, not just products and services, but also business models, processes and strategies?

SMART FUTURES : R – Robust Resilience

How can we embed contingency planning that ensures system resilience (given the realities of frequency of disruptions--personal, social and environmental) ?

Improved development effectiveness of projects and interventions that focuses on sustainable change that addresses the root causes as well as the symptoms of the fault lines observed in the ecosystem under

Improvements in downtime and costs to repair when disasters and disruptions occur

SMART FUTURES: T - Transformative Technologies

What technologies might be applied to?

Reduce costs of delivering training

Accelerate Learning e.g. VR Labs

Access students in remote areas and marginalised communities such as the disabled or corrections systems

Create curriculum for digital natives aimed at developing the confidence and skills required to demonstrate an understanding of scientific concepts at early age

HOW TO GET READY FOR THE FUTURE WE WANT

FUTURE SENSE

"The capacity of individuals to observe oncoming change systemically with sensitivity and sensibility, and to identify emerging challenges and opportunities, applying foresight and insight gained through embrace of one's whole intelligence."

Claire A. Nelson

IMAGINE BLUE PACIFIC 2030

The Pacific Connection Virtual Edition….
June 26, 2030

The Pacific Enterprise Development Initiative PACEDI) launched in 2020 has met the challenge of investing $US100M in the innovations in agritech, maritech and the creative industries across the Pacific, and has engaged over 5,000 youth entrepreneurs employing over 20,000 young people, and which has resulted in 25 international patents, and returned some $150M in revenue.

WHAT LEADERSHIP WILL CREATE SMART FUTURES?

- How can we plan and navigate our way to success in a VUCA INDUSTRY 4.0 World?
- How can we co-create systems which embrace radical new partnerships and technologies, integrate processes, and create reliable products and services to meet ever-changing needs of our diverse stakeholders?
- What leadership assets will be needed across the Blue Pacific Skills Partnership to evade future shock and claim future sense?

WHAT IF? A SMART PACIFIC COLLABORATORY

The SMART PACIFIC COLLABORATORY is a virtual, distributed laboratory- a collaboratory- that can support a wide range of innovative projects and initiatives and scientific experiments in multiple regional or national or community-based laboratories. This integrated research, design and planning platform seeks to create the regional mindset that might better address the management challenges of regional public goods in the Blue Pacific such as the ocean or space.




WHAT IF? A SMART PACIFIC COLLABORATORY

Initiatives could include e.g. BLUE PACIFIC FUTURES COMMUNITY DIALOGUES; PACIFIC OCEAN DECISION THEATER; and the PACIFIC PROGRAM FOR EXCELLENCE IN STEM EDUCATION.

"You never change things by fighting the existing reality.

To change something, build a new model that makes the existing model obsolete."

R.Buckminster Fuller

… FUTURE SENSE NOW

Face the future…
Eager for Action

…with an open mindset.

…as something to be created and nurtured in the present moment.

…by making choices and commitments, and taking action today, with tomorrow in mind.

The Future is Ours to Shape

" The vast possibilities of our great future will become realities only if we make ourselves responsible for that future."

Gifford Pinchot

THANK YOU.

MERCI.

VINAKA

Dr. Claire A. Nelson

thefuturesforum@gmail.com

www.thefuturesforum.org

LinkedIn/DrClaireANelson

the FUTURES FORUM

Sagenet ideas for sustainable futures