

ACHIEVING SOCIAL SUSTAINABILITY – PROMOTING INCLUSION & OPTIMIZING HUMAN PERFORMANCE

Dr. Suzanne Kearns



**When you imagine a
sustainable future for air
transportation,
what do you see?**

Wiarnton teen soaring to new heights

At 17, a lot of teenagers are focused on getting behind the wheel of the car. That makes Sue Robinson, of RR2 Wiarton, just a little different.

You might just say that Sue's goals are a little loftier.

A good crowd of family and friends had first hand proof of that as Sue piloted a small helicopter to a perfect

landing in a field near Shallow Lake.

Sue's parents were in the crowd and if they had any anxieties at all, they were hidden behind the obvious pride at their daughter's achievements.

At 17, Sue became the youngest Canadian to hold a private airplane and helicopter licence.

She got her pilot's licence when she was 16 and qualified for helicopters September 11, the day after her 17th birthday.

"We are really proud of her," said her father Eric as the helicopter circled the field on the property of her grandfather,

Bev Shouldice.

He explained that her interest in flying first began in Cadets where she was given a ride in a glider.

"I've always wanted to fly," she explained while a crowd of her school friends circled

around her after the landing.

And there is no doubt that she will have a career in flying. She has already started training for her commercial pilot licence. She will be old enough to take that test when she turns 18.



Three face drug charges

Three area residents are facing drug related charges as the result of a Crimestoppers tip.

On Tuesday, September 24, around 6:45 p.m. members of the Wiarton OPP and Western Region Crime Unit stopped a vehicle in the Red Bay area in Albemarle Township. The three occupants in the vehicle were searched and a small amount of marijuana was found on each of them.

A search warrant was then obtained for the vehicle and a residence located at L22 C6 of Albemarle Township.

Police found and seized about four

estimated street value of approximately \$8,000.

An assortment of drug processing equipment was also seized.

Peter Morley, 27, of Owen Sound and Juanita Robinson, 32, of Meaford have been charged with possession of a narcotic.

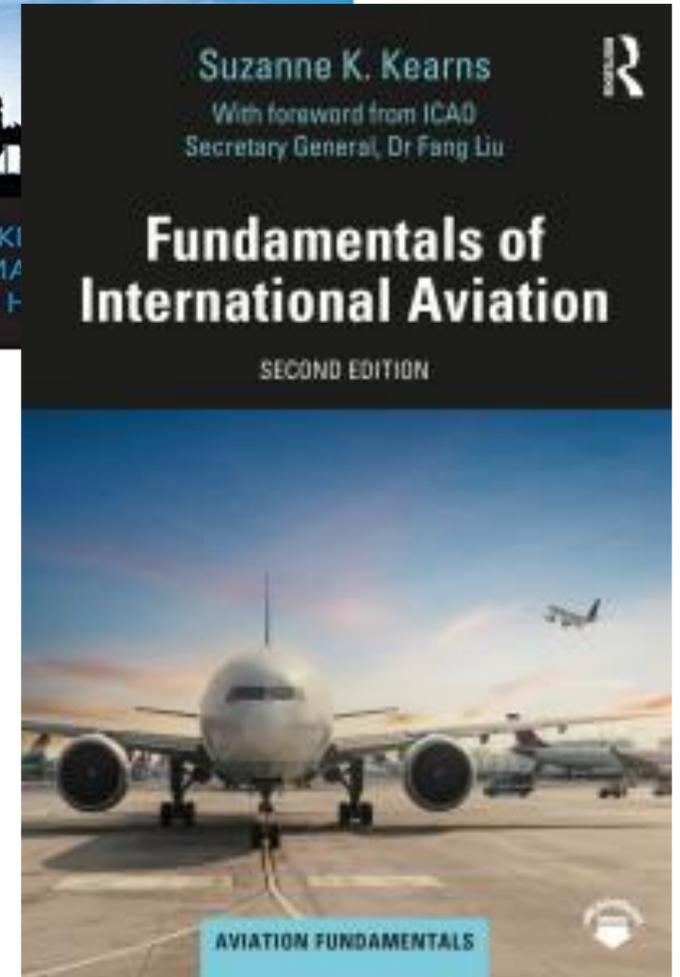
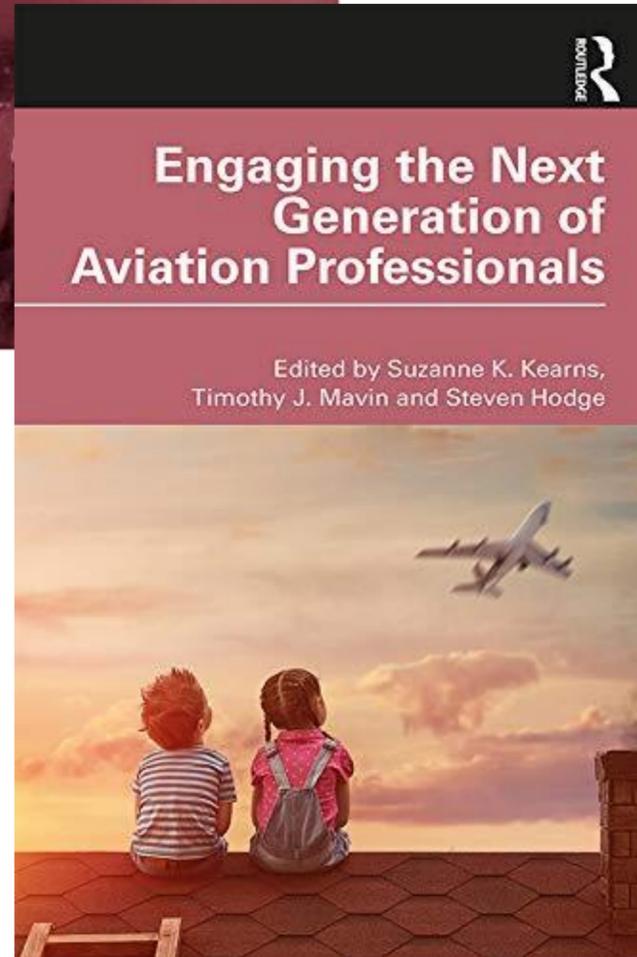
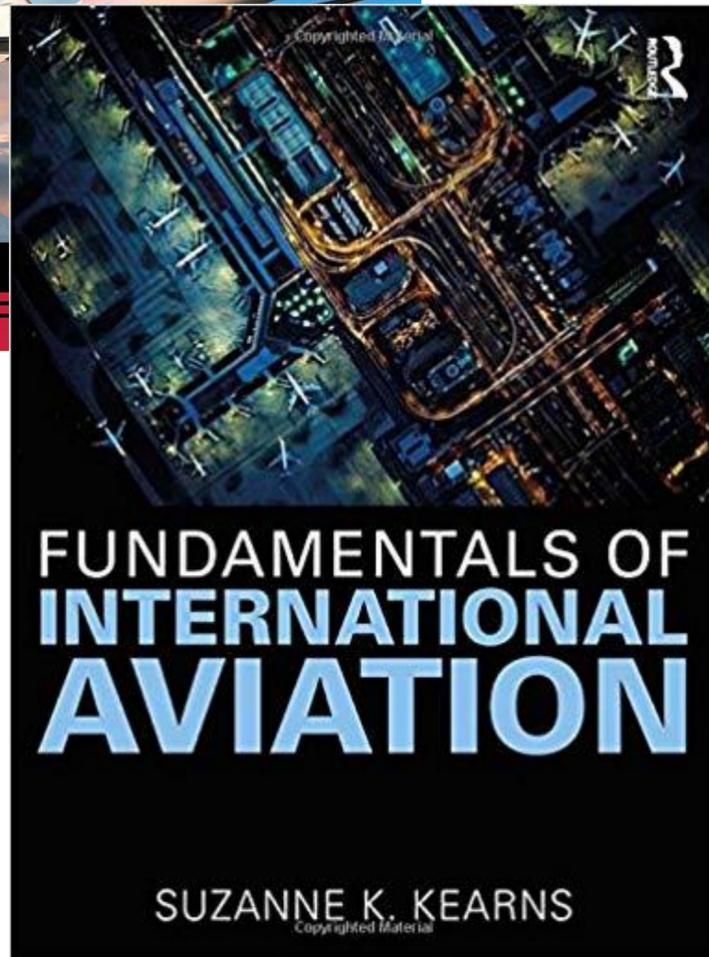
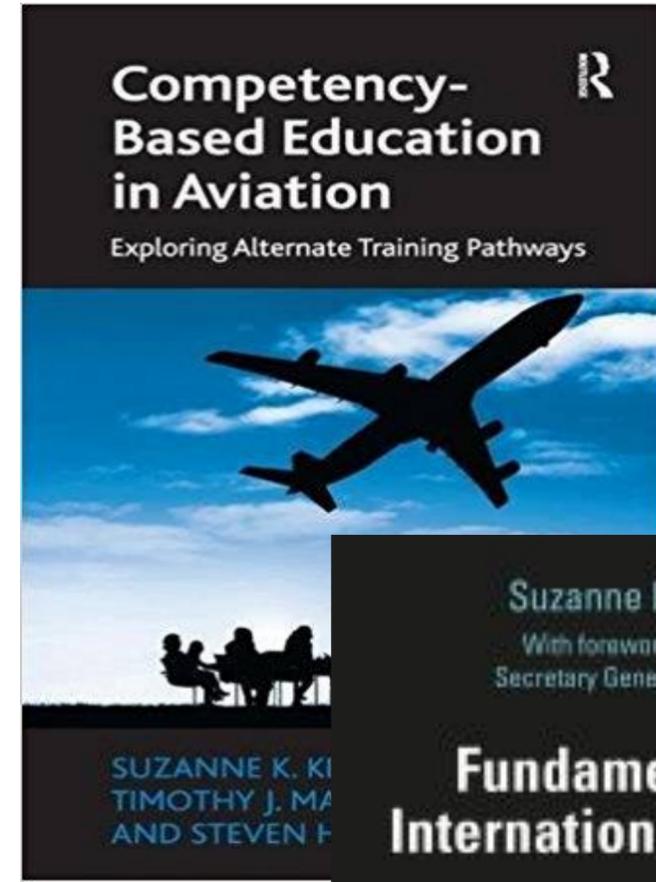
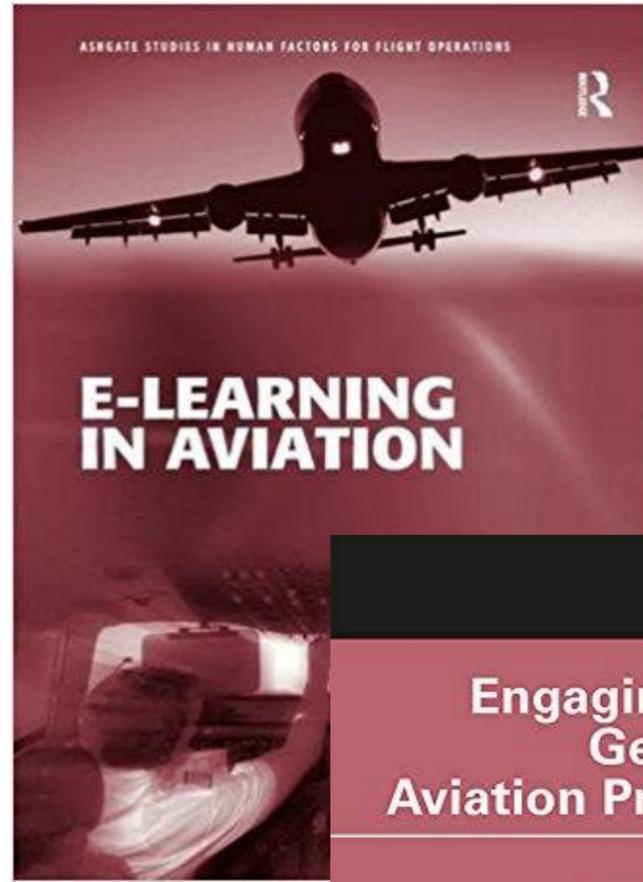
Simon Smith, 45, of Albemarle Township has been charged with possession of a narcotic, possession for the purpose of trafficking and the unsafe storage of a firearm.

The trio will appear in provincial court in Owen Sound on November 12.



Sue Robinson stands beside the helicopter she landed in a field near Shallow Lake





COVID-19

COVID crippled the airline sector

The industry experienced a shared trauma with many out of work for 2+ years



Global Aviation Challenges



CHALLENGES ALIGN WITH THREE PILLARS OF SUSTAINABILITY



SOCIAL



ENVIRONMENTAL



ECONOMIC

INDUSTRY NEEDS SOLUTIONS

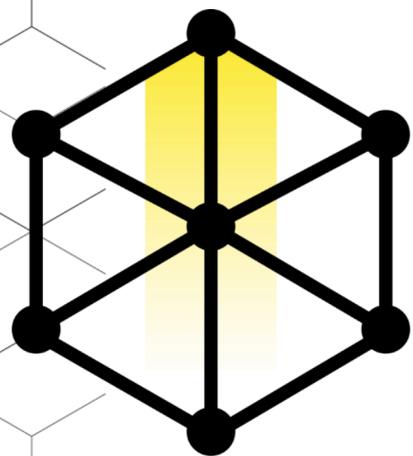
University research can be *theoretical* and *disconnected* from immediate challenges

WISA IS DIFFERENT BY DESIGN



WISA

Waterloo Institute for Sustainable Aeronautics



SOCIAL SUSTAINABILITY

The aviation, aerospace, and space industries connect our world, facilitating cultural exchange and innovation. But they face challenges associated with impacts on the communities they serve – as well as those inherent within the aeronautical workforce.

WISA works to build equitable, diverse, and inclusive workforces, communities, and global experiences through aeronautics research and innovation.

Select research areas

- Future of the aviation profession
- Human factors
- Flight physiology
- Machine learning
- Educational technologies
- Equity, diversity, and inclusion
- Sustainable tourism
- Healthy communities

WORKFORCE = SUSTAINABILITY!



INSPIRE
ATTRACTION &
RETENTION

Aeronautics is a force for good

A sustainable future depends on building equitable, diverse, and inclusive workforces, directly linked to effectiveness & innovation in training aviation professionals.

EDUCATE
CLASSROOM &
SIMULATOR



ANALYZE
RESEARCH &
DISCOVERY



INNOVATE
TECHNOLOGIES

CREATING A MORE EQUITABLE FUTURE



- There is a distinct lack of equity, diversity, and inclusion within the aviation and aerospace industries
- We must value and promote the voices of racialized, Indigenous, LGBTQ+, and other marginalized groups
- We must lead the way to more equitable and inclusive workforce practices

**Only
5%**

of airline pilots
identify as
women

**Only
20%**

of cabin crew
identify as
male





Environmental Sustainability Drives Recruitment

global



Lufthansa

#SayYesToTheEndOfTheWorld

At Lufthansa,
we distract
you with
pictures of
trees while
we fry the
planet.



#BanFossilAds

Greenwash
ads by



DOB
München

713001



TONY
MONTANA

Sustainable Development Goals (SDGs)



**Environmental, Social,
and Governance (ESG)**

**Corporate Social
Responsibility (CSR)**

Sustainable Development Goals (SDGs)



- Goals to be embraced by all levels of society (governments, corporations, small business, and even individuals)
- 17 interdependent goals
- Coordination is critical as progress on one can have a positive or negative impact on others
- Aviation advances many SDGs but can harm others

ESG

Environmental, Social, and Governance

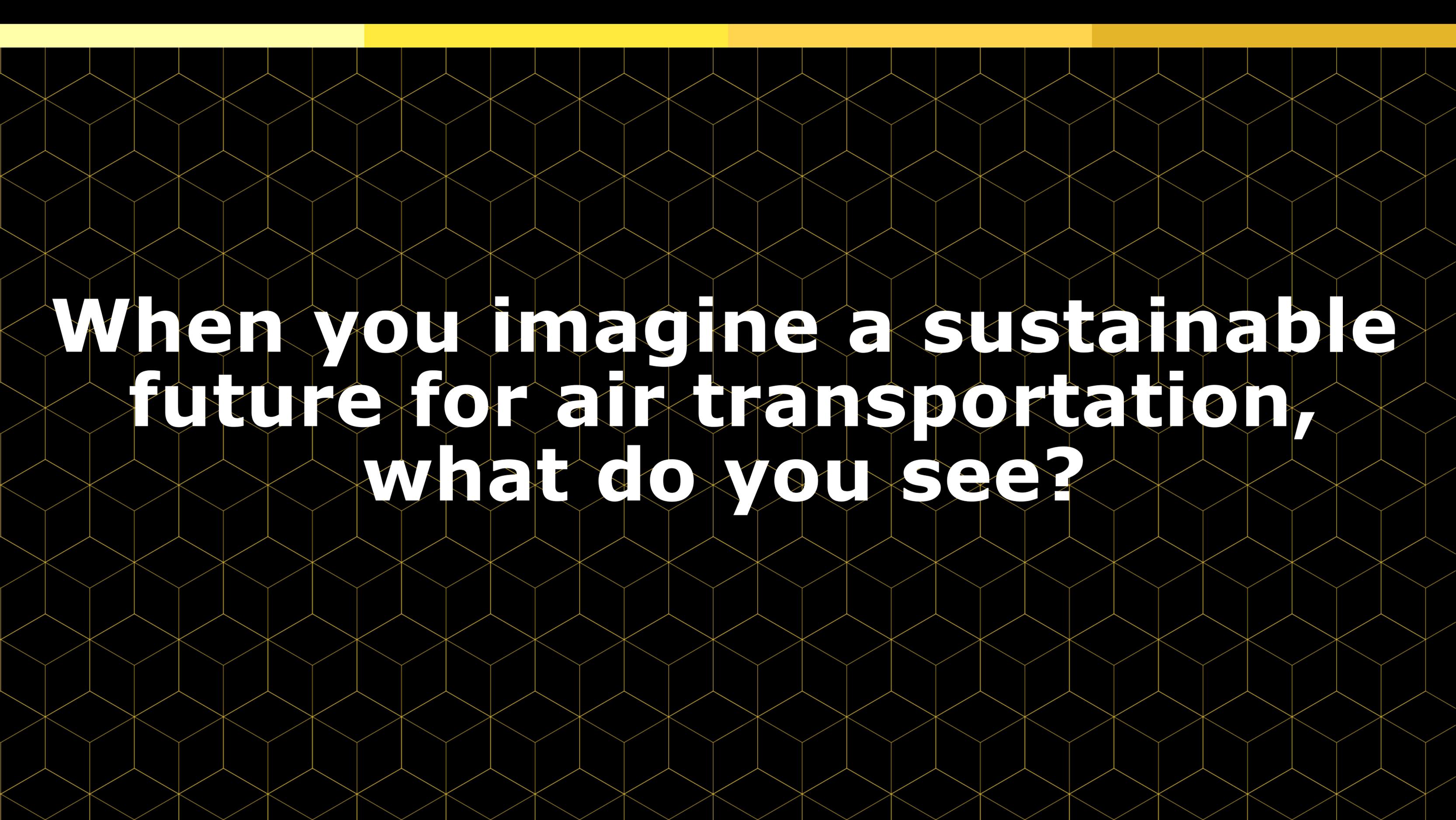
- Measurable sustainability assessment, popular with investors
- Focus on reaching performance metrics, setting measurable goals, and conducting audits
- Financial performance is a key purpose of ESG valuation
- Quantifies existing accountability – but can also mislead

CSR

Corporate Social Responsibility

- Business model for companies that impacts their internal processes and culture
- Looser than ESG, CSR includes activities company undertakes to have a greater global impact
- Good CSR helps maintain a positive brand image and boosts stakeholder morale
- CSR efforts often highlighted in annual reporting
- Can be good – but can also mislead and promote greenwashing

**85% OF INVESTORS,
91% OF BANKS,
90% OF INSURERS,
AND MAJORITY OF YOUNG JOB SEEKERS
CONSIDER ESG FACTORS IN THEIR DECISIONS**



**When you imagine a sustainable
future for air transportation,
what do you see?**

FEDDEV - \$9.17M

- **\$4.5M** Research-for-Impact grants awarded to UWaterloo research teams
- Establish an **Innovation Hub** at YKF with advanced simulators and a testbed for green technologies (e-plane & solar hangar)
- **2 new** e-Learning courses on Aviation Sustainability & Aviation and Climate Change
- Supporting **12** Ontario companies through Pitch competitions, awarding up to \$50K each



FUTURE FOCUSED, *TOGETHER*

We must strategically evolve to train the leaders of the future:

- Promote **sustainability** as an element of every job
- **Question** what can evolve in training and operational practice to promote valuable and fulfilling work
- Support **diversity and inclusion**



UNIVERSITY OF WATERLOO



YOU+WATERLOO

Our greatest impact happens together.