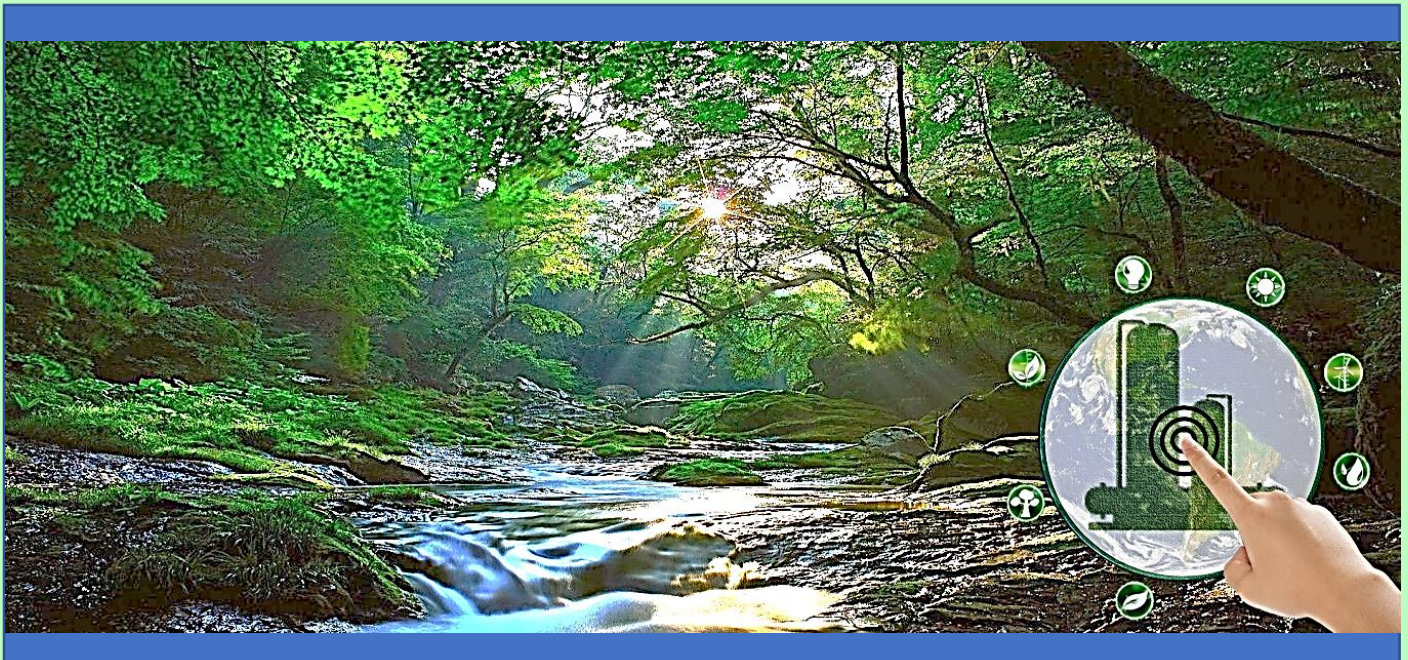


Sustain Petro-Techna Ability



What is Sustainability?

Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Why Sustainability?

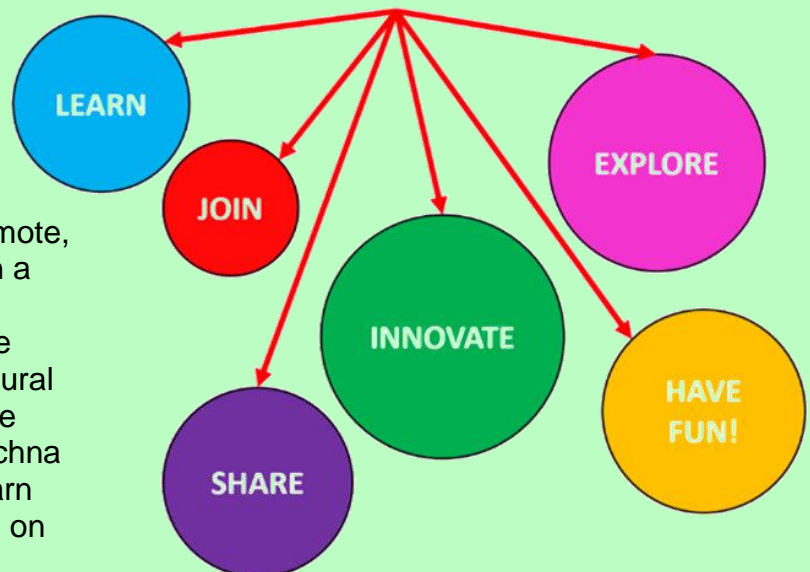
SAVING & PRESERVING OUR PLANET

TO THRIVE

Who will drive the sustainability mission inside our company?
Its PEOPLE

As part of our inward approach to accomplish this mission in our community; we hope to promote, discuss, engage, and educate (self-educate) in a new way of thinking: "Our skillsets and work endeavors in every capacity to contribute to the mission towards sustainability." With this inaugural newsletter, we would like to get input and active participation from all members of the Petro-Techna family. We encourage you to [click here](#) and learn more about our inward and outward reflections on the road to sustainability.

PARTICIPATE



WHAT IS PETRO-TECHNA'S OUTWARD APPROACH FOR SUSTAINABILITY?

Petro-Techna International has partnered with Lambton College's Research & Innovation department to inaugurate novel R&D projects with endeavors towards providing more sustainable solutions to customers.



PROJECT #1: DEVELOPMENT OF AN ADVANCED, MEMBRANE-BASED WATER TREATMENT PROCESS FOR TREATMENT OF PRODUCED WATER FROM THE PETROLEUM INDUSTRY

We aim to synthesize a membrane with excellent mechanical and chemical stability to take high-salinity industrial wastewater associated with oil and gas sector and upgrade it to utility/irrigation/potable water standards. This project has received the "Engage" grant from the Natural Sciences and Engineering Research Council of Canada (NSERC).

Novel Nano-Engineered Composite Membrane



Development of an Advanced Process for Produced Water Treatment



FUNDER
NSERC-Engage

Petro-Techna International, a Canadian energy consulting firm, and Lambton College are working together to develop a low-cost, high-performance and durable nano-engineered membrane for efficient treatment of high-salinity industrial wastewater associated with the oil and gas sector also known as produced water.

Design, Fabrication



PROJECT #2: GREEN METER FOR CRUDE OIL DESALTING TRAIN

We aim to provide insights for solid sustainable decision-making in petroleum industry by developing a powerful analytical software tool to track and mitigate our carbon footprint.



CARBON TAX

DID YOU KNOW?

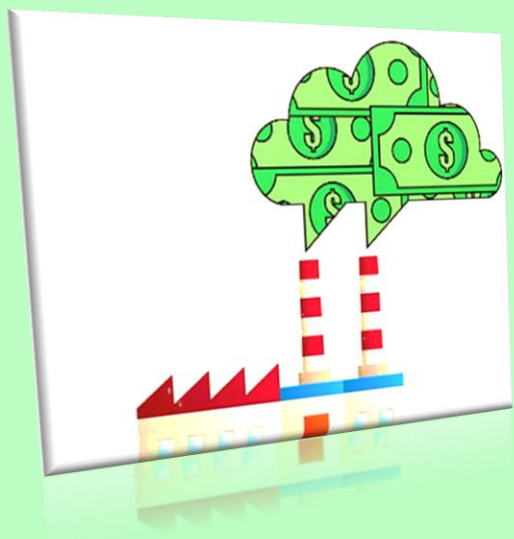
Have you ever heard of the term "**Carbon Tax**" or "**Carbon Credit**"? Did you know that you are paying tax when filling up your gas tank? Ever asked yourself how is Canadian government assisting in preventing climate change? Herein, we may have the answers to your questions

A **carbon tax** is a tax on the carbon content of fuels, generally in the transport and energy sector. The intention is to reduce carbon dioxide emissions by increasing the price of fossil fuels.

But what is a **carbon credit**? As an alternative to carbon taxes, companies may buy carbon credits as a permit to emit CO₂ or the equivalent amount of a different greenhouse gas.

Carbon pricing is meant to shift investments on public transport and more sustainable and environment friendly energy resources. Currently, it is the most efficient way for nations to mitigate carbon emissions and global warming by encouraging polluters to reduce the amount of greenhouse gases emissions.

Although the Canadian economy is heavily impacted by the oil industry, Canada has agreed to implement the carbon tax. The federal government has been applying a charge on the sale of gasoline and diesel.



As of April 2020, the current federal carbon tax is \$30 per tonne of carbon dioxide, or **6.6 cents per litre of gasoline**, and will rise by \$10 per year to reach \$50 per tonne in 2022.

NEW CONCEPT #1 - BIOMIMICRY

Solutions Inspired
BY NATURE
to Solve Problems
FOR PEOPLE

Mother nature has configurations that are time tested and accurate. Can we learn from these and apply them to create processes that will be sustainable for our future generations?



Biomimicry in Airplanes

There are many instances where we have solved problems by simply following the natural world. One of the most famous examples is aviation. A concept inspired by birds eventually led humans into a controlled and sustainable flight ([click here](#)).



Since time immemorial, humans have dreamt of flying. From crafting kites and wings to jumping from cliffs, these attempts ended in crashing and injuries (if lucky, at worse non survival).

As the scientific knowledge grew, the shape of birds inspired us to realize our dreams and ambitions in accessibility, trade, business, and transportation. Engineers studied birds and mimicked their wings, shape, and mode of flying ([click here](#)).

Biomimicry Engineering in Nature's Style Albatross & Shark

Engineers have learned several facts from albatross anatomy to ultimately implement them into the Airbus A320 design.

Additionally, they are investigating techniques to imitate sharks and provide a special coating to lower air resistance for long-range aircrafts ([click here](#)).

So, the question arises:

Where can we apply Biomimicry in OUR WORK?



How is Business Adapting?

Climate change along with water scarcity, efficient use of resources, and agribusiness are the greatest sustainability challenges facing our world today. Many investors have already started funding renewable energy projects to facilitate the transition to a low carbon or circular economy. Besides, most of major fossil-fuel based energy brands are affected by global and domestic environmental regulations and structural changes pertaining to climate. In fact, many of the global fossil fuel reservoirs may be even left unexploited all around the world.



To measure the global sustainability of companies, there exist sophisticated benchmarks such as the Dow Jones Sustainability Index (DJSI), Fossil Fuel Free index, and Carbon Efficient Index families to track the stock performance of the world's leading companies in terms of economic and governance, environmental, and social dimensions combined with multiple factors including low volatility, high beta, growth, value, dividend, momentum, and quality. These indices have applied transparent and robust methodology for sustainability convictions and carbon emission policies in investment portfolios for directing sustainable business practices, which play a crucial role in generating long-lasting shareholder values.

Major Brands Are Already Remarketing Themselves

STATOIL → **Statoil** → **equinor**

BP → **bp**

NATURAL GAS | OIL — 26 Oct 2020 | 11:48 UTC — London
BP drops operatorship of sensitive exploration block offshore Brazil

March 27, 2019 EnergyNow Media
BP Pledges \$100 Million to Cut Emissions From Oil Operations

Mar 26, 2019, by James Herro (Bloomberg)
Total to drop control of sensitive offshore Brazilian exploration blocks

in Oil & Companies News 08/09/2020
Total has decided to resign its operatorship of five exploration blocks, in the environmentally sensitive the Foz do Amazonas offshore Brazil, the French oil major said Sept. 7.

4,323 views | Aug 5, 2020, 01:25pm EDT
BP's Strategic Shift To Renewables

BP to double LNG portfolio by 2030

Wednesday, 05 August 2020
UK-based energy giant BP is planning to double its LNG portfolio by 2030, according to CFO, Murray Auchincloss.

TOTAL ENTERS INTO A GIANT OFFSHORE WIND FARM PROJECT IN SCOTTISH NORTH SEA

General Electric to Supply Turbines to World's Largest Offshore Wind Farm
 A single rotation of a turbine blade generates enough energy to power a U.K. home for days.

PETRO-TECHNA COMMUNITY PAGE



GOOD DEED OPPORTUNITIES BY LOCAL INITIATIVES

Let's **End Hunger** Together!!! We all have a role in ending food waste. You may ask how? Simple, donate to or help food banks or charities. Second Harvest is the largest Canadian charity for food rescue with a dual mission of hunger relief and environmental protection. Their supply chain extends from farm to retail to collect surplus food before it goes to waste and ends up in the landfill that negatively impacts our environment.

Their Vision: No Waste! No Hunger!

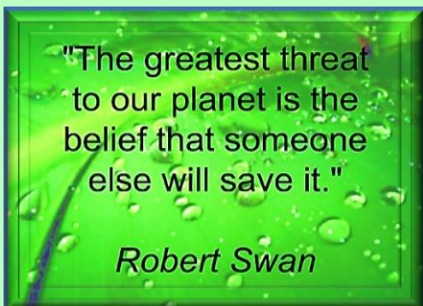
Their Mission: Grow an efficient food recovery network to fuel people and reduce the environmental impacts of avoidable food waste.

Their Values: Community (good food for everyone), Integrity (open, honest, and transparent), Environment, and Collaboration.

As part of our ethos and always helping those in need, we would encourage you to [donate](#), or should your schedule permit, consider volunteering your time to help combat hunger in our community.

Find the right opportunity for you and sign up:

[APPLICATION FORM](#)



Recollecting Sustainability Tips:

- ♥ Remove junks from your trunk
- ♠ Unplug your electronics when not using
- ♦ Drink tap water and eat from sustainable sources
- ♣ Avoid unnecessary printing, prepackaged and plastic products



Do you know the best way to recycle K-Cup® pods? Send us your solutions and you will be entered into a draw for a chance to win a **\$50 Gift Certificate**. So, **HURRY UP!**

Special Event of This Month:

Overcoming the Climate Crisis: What Needs to be Done

January 26, 2021 at 6:30 PM EST

[Register Here](#)

Description: Climate change as a political issue concerns the relation of people to people and people to power. In this regard, Prof. Harvey – the author of "Global Warming: the hard science" from U of T – will discuss what we have to do, and when, to avoid catastrophic global warming.

We promise to always have interesting contents uploaded on the channel waiting for you to read or watch. Nevertheless, we are always seeking people who provide feedbacks and get involved in our sustainability mission, so please email us at sina.fard@petro-techna.com or post your great ideas on [our channel](#).