



Young Pipeliners Association of Canada

| Advisor Update - Dec 2020



Building the next generation of pipeline industry leaders

<https://ypacanada.com/>

Young Pipeliners Overview

Creativity. Bold Vision. Focus.

Young Pipeliners' Vision & Missions

Young Pipeliners is **building the next generation of pipeline industry leaders:**

- **Network:** Providing a network of peers to reach out to when you need support, connection, and inspiration
- **Knowledge:** Delivering knowledge to members and facilitating the stewardship of the pipeline industry
- **Opportunities:** Enabling our members to have access to opportunities for development; both personal and professional
- **Impact:** Shaping the industry so that it attracts and retains high potential young professionals and clearly articulating and leading our bold vision of the future

The guidance, mentorship and sponsorship of our advisors has been an integral part of developing influence and delivering valuable programming to Young Pipeliners..

Key 2020 Achievements

- Reached 2100 members, formed two new chapters (13 Chapters across Canada), launched the Young Pipeliners mentorship program
- Hosted 30 Young Pipeliners Chapter Events and also delivered the YPAC x AVATAR program (6 virtual learning sessions + 1 shark tank)
- Deepened relationships with key Young Pipeliners partners including CEPA, CEPA Foundation, CSA, CGA, PRCI, IPC, and government stakeholders
- Grew social media reach, strengthened credibility of our message through Indigenous Inclusion, and developed the Young Pipeliners Vision of the Future Key Tenants: Climate Change, Indigenous Reconciliation, Diversity and Inclusion, Innovation
- Contributed to the global Young Pipeliner community through Young Pipeliners International at quarterly meetings and through IPC



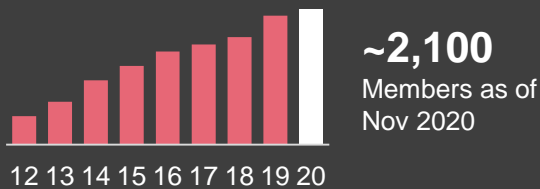
How can advisors help us achieve our 2021 goals?

- On-going advisory on organizational strategy and high-level direction
- Access to development opportunities within our Advisors' organizations (volunteering on committees, supporting events and speaking opportunities, etc.)
- Promotion of Young Pipeliners & advocacy within the Advisor's organization

Young Pipeliners Overview

Snapshot of the organization

Continuous Growth since 2012



13 Chapters in 9 regions across Canada

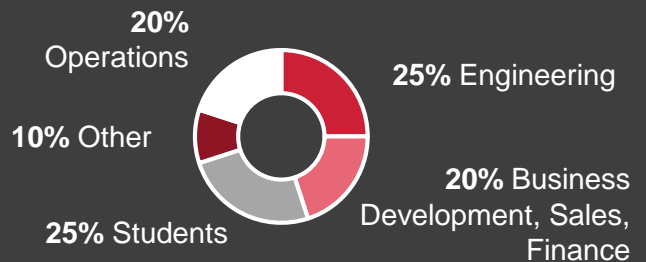


Member Distribution by Company Type



* Universities, Research Institutions, Unspecified, etc.

Member Distribution by Profession



International Affiliations

- YPI (Young Pipeliners International)
- YPP USA
- YPP Europe
- YPP India
- YPP Brazil
- YPP Mexico
- YPP Australia

Industry Partnerships

- Canadian Energy Pipeline Association (CEPA)
- CEPA Foundation
- ASME Pipeline Systems Division
- Pipeline Research Council International (PRCI)
- Canadian Standards Association
- Canadian Gas Association
- International Pipeline Conference

Short-Term Tactical Goals (2021)

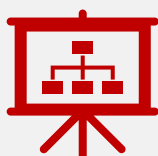
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Mission & Long Term Goal	2021 KPI	2020 Results
<p>Network Membership becomes a career development Launchpad and a place to find inspiration and connection. Every young person working in the industry is a Young Pipeliners member.</p>	<ul style="list-style-type: none"> ▪ Add 300+ Members ▪ Form a Manitoba Chapter, strengthen newly formed chapters ▪ Maintain global network through YPI 	<ul style="list-style-type: none"> ▪ Added 250 Members, now at 2,100 ▪ Added two chapters, the UWO Student & Atlantic Chapter ▪ Held 4 YPI meetings
<p>Knowledge Young Pipeliners facilitates industry knowledge transfer and enables the next generation of pipeline industry leaders to steward the future and to catalyze change.</p>	<ul style="list-style-type: none"> ▪ Host 30 events/year - technical and business acumen ▪ Deliver the 2021 Conference ▪ Execute Avatar Program 	<ul style="list-style-type: none"> ▪ Hosted 28 Chapter events ▪ IPC – 2020 YEEC Committee delivered two events with YPI ▪ Delivered 7 YPAC x AVATAR Program Events
<p>Opportunities Connecting high potential young pipeliners with excellent development opportunities shapes the future of industry, government, regulators, and builds an innovation ecosystem.</p>	<ul style="list-style-type: none"> ▪ Develop and deploy Government Engagement Strategy, meet with 5 key stakeholders ▪ Add Regulatory Partners (CER/AER) ▪ Continue to build and strengthen relationships with CEPA, PRCI, CEPA F, IPC, IPC F 	<ul style="list-style-type: none"> ▪ Met with 2 Government Stakeholders, Engaged Min. Savage & Min. O'Regan (via AVATAR) ▪ Strengthened existing partnerships (CEPA Foundation ex-officio board, CEPA Performance Report, PRCI Agreement, CGA Partnership Agreement) ▪ New CSA Z662 Collaboration ▪ UBC Scholarship ▪ Queen's University Research Project
<p>Impact Our clear vision of the future of the pipeline industry resonates with members, key stakeholders and the public. Young Pipeliners enables the industry to attract and retain high potential talent by addressing key concerns of the next generation: Climate Change, Indigenous Reconciliation, Diversity, Equity & Inclusion, and Innovation.</p>	<ul style="list-style-type: none"> ▪ Grow social media, increase media mentions across the country ▪ Build Credibility of Vision of the Future including: <ul style="list-style-type: none"> ▪ Net zero by 2050 Government dialogues ▪ Deliver on Indigenous Inclusion Strategy ▪ Create Diversity, Equity, and Inclusion Strategy ▪ Support Avatar Innovation Ecosystem 	<ul style="list-style-type: none"> ▪ Strong social media presence (400+ new posts across platforms; 12 engagements per post; 3,100 on LinkedIn) ▪ Significant Media Coverage (Young Pipeliners mentioned in 30 news articles including the Globe and Mail, Daily Oil Bulletin, Calgary Herald, CBC, etc) ▪ Created the Young Pipeliners Vision of the Future Tenants: Launched IIC and Indigenous Inclusion Knowledge Building

Long-Term Goals

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Mission & Long-Term Goal	Success Measures
<p>Network Membership becomes a career development Launchpad and a place to find inspiration and connection. Every early career pipeline professional is a Young Pipeliners member.</p>	<ul style="list-style-type: none"> ▪ Thousands of young professionals directly reached through Young Pipeliners event/program sustains membership growth ▪ Inspire young pipeliners to find meaning and value in their work ▪ International network of young pipeliners strengthens global industry performance
<p>Knowledge Young Pipeliners facilitates industry knowledge transfer and enables the next generation of pipeline industry leaders to steward the future and to catalyze change.</p>	<ul style="list-style-type: none"> ▪ Events and programs equip members with tools to understand key industry forces, to develop technical and business acumen, and to be stewards of the future of pipelines.
<p>Opportunities Connecting high potential young pipeliners with excellent development opportunities shapes the future of industry, government, regulators, and builds an innovation ecosystem.</p>	<ul style="list-style-type: none"> ▪ Policy-impacting federal, provincial, and municipal government engagement ▪ Young Pipeliner advisory councils at pipeline companies are in place ▪ Succession planning for technical and industry committees (CEPA, IPC F, CSA, CGA, PRCI) ▪ Academia, students, and industry collaborate on problems and share best-practices
<p>Impact Our clear vision of the future of the pipeline industry resonates with members, key stakeholders and the public. Young Pipeliners enables the industry to attract and retain high potential talent by addressing key concerns of the next generation: Climate Change, Indigenous Reconciliation, Diversity, Equity & Inclusion, and Innovation.</p>	<ul style="list-style-type: none"> ▪ Public perception shifts about the pipeline industry because it is actively addressing key concerns of the next generation ▪ Indigenous Inclusion woven into strategy ▪ The next generation is energy literate and trusts the pipeline industry to deliver oil and gas safely ▪ High potential young professionals join the pipeline industry and become advocates



Organizational Excellence Focus Areas

- Financial governance and reporting, clear expense policy
- Strong sponsor relationships with an engaged and dynamic advisory board
- Well communicated strategy that is articulated throughout the organization
- Professional development session for volunteers & executives
- Onboarding kit & brand kit; effective information access across organization

Our Vision of the Future

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Tenant	Action
<p>Climate Change Pipelines play an integral role in Canada's ability to reach net-zero emissions by 2050. Building, operating, and maintaining pipelines combats climate change.</p>	<ul style="list-style-type: none"> ▪ National Hydrogen, RNG, CCUS strategies ▪ Reducing Pipeline GHG (Methane) Emissions ▪ Enabling fuel switching (coal to gas) ▪ Policy timelines and non-partisan evaluation of projects: natural gas and oil remain an integral part of the energy ecosystem - enabling renewables, net zero buildings, and reliable grids ▪ Energy and carbon efficiency in industry ▪ Effective implementation of the clean fuels standard
<p>Indigenous Reconciliation Pipelines advance Canada's Reconciliation with Indigenous peoples. The pipeline industry fully engages with Call to Action 92 from the Truth & Reconciliation Commission.</p>	<ul style="list-style-type: none"> ▪ Meaningful consultation, respectful relationships, free prior and informed consent of Indigenous peoples ▪ Inclusion of Indigenous peoples and perspectives in Young Pipeliners ▪ Education for Young Pipeliners members about the history and legacy of residential schools, UNDRIP, Treaties and Rights, Indigenous law, and Crown duty to consult
<p>Innovation Pipelines are a hub for innovation, and adopt advanced technology to ensure the safe, reliable, and environmentally outstanding transportation of fluids (oil, natural gas, water, hydrogen, carbon, etc). Young pipeliners receive the support they need to excel.</p>	<ul style="list-style-type: none"> ▪ Enabling innovation in pipeline safety, operations, maintenance, construction, environmental impact, and carbon emissions ▪ Training and developing the next generation of high tech professionals and skilled trades people ▪ Adopting and optimizing new technology ▪ Research in reducing energy intensity of transported fuels themselves
<p>Diversity & Inclusion Pipelines are a diverse, equitable, and inclusive place to work. Senior leaders listen to the perspective of young pipeliners and our input shapes strategy.</p>	<ul style="list-style-type: none"> ▪ Addressing systemic gaps in advancement and senior leadership for women, BIPOC, persons with disabilities and LGTBQ+ people in industry ▪ Ensuring fair and equitable parental leave. Enabling flexible work accommodations accounting for the realities of childcare and elder care. ▪ Industry and government engaging in two way dialogue with young pipeliners ▪ Pipeliners recognize and call out our own biases – conscious and unconscious – to make meaningful, sustainable change

Young Pipeliners Advisory Board

November 2020 Key Takeaways

Focus Areas	<ul style="list-style-type: none">▪ Ensure both technical and business acumen skills are developed for members – pipeline fundamentals = industry stewardship, educate on pipeline code▪ Promote and encourage Indigenous Inclusion throughout the industry and within the Young Pipeliners Association of Canada▪ Increase the network's presence and influence locally and globally, improve connectiveness of members▪ Develop and adopt new technologies and innovation in industry▪ Increased collaboration across oil and gas value chain▪ Initiatives such as Avatar can enable young pipeliners to work on innovative projects that can provide value to the industry, ensure Avatar is well known throughout the industry and that the project teams are given what they need to move forward▪ Develop and expand the Young Pipeliners mentorship program to provide greater knowledge exchange▪ Continue to build relationships with external partners▪ Keep sustainability front and center including a net zero vision
Areas to Assess	<ul style="list-style-type: none">▪ Virtual Conference will be a challenge – how can we make it valuable and effective for technical knowledge transfer? How will it be different from Avatar?▪ Ensure events are streamlined and consider hosting fewer of them, or having a theme which ties them together▪ Continue to build the credibility, reach and capability of the organization – making progress, but these things take time



Provide education that develops technical and business acumen



Share young professionals' credible vision for the industry's future



Connect members through programs to innovate, solve problems and share of best-practices



Develop internal organizational capability and processes to enable success

Young Pipeliners Overview

The Young Pipeliners Organizational Structure and Governance

We are made up of 13 local chapters (spanning 9 regions across Canada) and 4 Canada-wide organizational committees. The chairs of each committee and chapter form the Central Executive Committee, along with the Young Pipeliners President & CEO, and the Young Pipeliners treasurer. Our Central Executive Committee is guided by our advisory board. The advisory board members include past Young Pipeliners presidents, senior leaders in the pipeline industry, academics, regulators, and representatives from our key partner organizations.

The **Regional and Student Chapters** provide the backbone of Young Pipeliners operations by delivering great events for our members and building a meaningful network of peer.

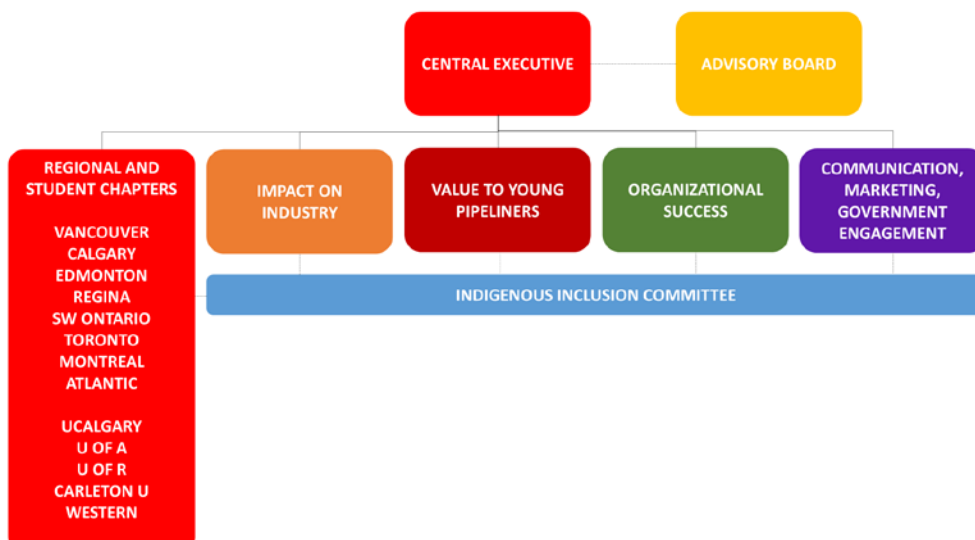
Our committees handle the broad industry-wide activities and indicatives which support our operations. The **Impact on Industry Committee** manages external partnerships with industry associations and educational institutions and engages with technical and code committees to ensure that Young Pipeliners are represented.

The Young Pipeliners **Indigenous Inclusion Committee** (part of impact on industry) is responding to the calls for Reconciliation through formal programs and meaningful engagement within the organization and the industry at large.

The **Value to Young Pipeliners Committee** ensures that members and volunteers have a rewarding and meaningful experience across Canada while delivering our flagship event – the 2021 Young Pipeliners conference. They are also our connection to Young Pipeliners International.

Organizational Success is tasked with maintaining and developing strong sponsor relationships. The team engages, retains, and attracts advisors.

Communications, Marketing, and Government Engagement develops and executes a communications and marketing strategy to reach young pipeliners, industry, and members of the public. In addition, they are responsible for developing and executing our government engagement strategy to reach municipal, provincial, and federal leaders to advocate on behalf of young pipeliners



Young Pipeliners Overview

How do we live our values?

Creativity: we transcend traditional ideas, rules, patterns, relationships to build something new

Bold Vision: with entrepreneurial zeal, we courageously take on challenges facing young pipeliners

Focus: we are clear and discerning with our plans and we devote our energy efficiently and effectively

Why be a member?

Young Pipeliners members have exclusive access to our events, industry opportunities, and a large network of peers. Although membership is free, being a Young Pipeliners member is a valuable part of building your career, removing barriers to development, building knowledge and accessing senior industry expertise. We have members working across Canada in multiple parts of the pipeline sector and a wide array of professional fields. Our members are early-career professionals at suppliers and manufacturers of raw materials, equipment and pipe vendors, operators of pipelines, engineering service providers, research and development organizations, and government and regulatory bodies. Having a diverse membership base contributes to our success and enables professional connections to build outside of companies, professional fields, and regions. Although there are no age restrictions for becoming a member, Young Pipeliners primarily aims to serve individuals with less than 10 years of pipeline industry experience. Our student chapters focus their efforts on serving the needs of individuals attending university and technical institutes in pipeline-related fields including business, engineering, science, and key pipeline construction trades.

How are we integrating Indigenous Inclusion into Young Pipeliners?

In 2020, the Indigenous Inclusion committee (IIC) was formed. The IIC started with discovery and knowledge building and will move into developing a strategic framework for the organization. The Young Pipeliners vision of the future of the pipeline industry places Indigenous Reconciliation as a central tenant.

"For an organization like the Young Pipeliners, where we are operating in a nation-wide virtual environment, we acknowledge we live and work on the traditional territory of many First Nations, Inuit and Metis peoples. The Young Pipeliners respect the enduring and unique relationship that exists between Indigenous Peoples and the land for which they are stewards. As we move forward in the Reconciliation process, we acknowledge that Young Pipeliners and the projects we work on have a vital role to play in a future that will include Indigenous communities, share in the wealth of the industry, and build respectful and mutually beneficial relationships."

Young Pipeliners Overview

Why be a volunteer?

Volunteering for a Young Pipeliners chapter or committee enables accelerated professional development and builds skills that are outside of your day-to-day work. The Young Pipeliners provide leadership **opportunities** to young professionals in a variety of spaces including government engagement, developing technical standards, participating in research, networking with senior industry professionals, managing a team, social media and marketing, and leading the next generation.

Young Pipeliners executives have access to senior experts and enable **knowledge** sharing about broad industry insights and issues. Through our association with various partners, volunteers can engage in areas that complement, expand, and fulfil their work. Engaging in two-way dialogue about critical forces impacting the industry builds leadership capacity for members and catalyzes change in our key focus areas: Indigenous Reconciliation, Climate Change, Technological Innovation, and Diversity & Inclusion.

Our organization facilitates strong connections and is an inspiring peer group. The Young Pipeliners **network** is resilient, supportive, and meaningful. Volunteering with Young Pipeliners provides members with access to senior industry leaders, research, innovators, and influencers.

Through our work, we positively **impact** the industry and enable our vision of the future – we want to make this an even better place to work. We engage with industry, government, and companies to ensure that they are meeting the needs and concerns of the next generation. We want to ensure that pipelines are a diverse and inclusive place to work where senior leaders listen to the perspective of young pipeliners and where our input shapes strategy in the areas of climate change, indigenous inclusion, and innovation. Guided by our values of creativity, bold vision, and focus, we are catalyzing change.

Young Pipeliners Mentorship

Creativity. Bold Vision. Focus.



Building resilient and inspiring networks

In 2020, the Young Pipeliners kicked off the first annual mentorship program. The initiative for this first year included establishing the program documentation and infrastructure. Some highlights include the development of event outlines, activities, the mentorship agreement, the program guidebook, and infographics.

The program is run over 8-months, which includes 4 meetings between the partners and 3 Young Pipeliners hosted events.

The goal of the program is to connect students and industry professionals across Canada. This is achieved through the following:

- Helping students achieve professional development goals with a targeted action plan
- Enabling networking among students and industry professionals

In 2020, Young Pipeliners connected 50 students and industry professionals from 5 different provinces and 8 different cities across Canada. The mentees spanned from 2nd-year students to graduate studies and the mentors had anywhere from 2-15+ years of experience.

In the first half of the program, Young Pipeliners has already received positive feedback from the participants. For the remainder of this year's offering, Young Pipeliners is looking forward to the remaining events and continuing to allow students and industry professionals the opportunity to connect.

Young Pipeliners is also looking to continue running the program in subsequent years incorporating the learnings from the first iteration to allow for future improvements. The key achievement of the mentorship program is providing a network for Young Pipeliners student members to connect with experienced industry members and receive both guidance and support. Additionally, industry members are able to gain inspiration and learnings from the students' fresh perspectives.

<https://ypacanada.com>

Young Pipeliners x Avatar

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The Avatar Program: launching the next generation of energy leaders

Executive Summary

Avatar Innovations is the world's first full cycle energy transformation accelerator that empowers oil and gas to become champions of a new energy future. Avatar Innovations has 3 interconnected pillars to accomplish this: The Avatar Program; The Avatar Accelerator and Avatar Ventures. It fills a gap in the energy innovation eco-system by connecting young professionals with the energy companies capable of implementing energy innovations with the capital to truly realize them.

The Avatar Program

Founded in 2017 and designed by the University of Calgary and the oil and gas industry, the program takes participants through a learning journey that empowers them with the skills sets required to build business solutions to the energy challenges of our time.

After a successful year, Avatar is being relaunched on January 15th, 2021 for up to 300 Young Professionals in the energy sector to work on business cases for implementation. This is a partnership with the Young Pipeliners Association of Canada, Young Professionals in Energy and Young Women in Energy and is sponsored by Enbridge, TC Energy, Suncor, AltaML and Spartan Controls.

Far more than simply an oil and gas initiative, the January Program will feature inspirational industry leaders from Virgin Galactic, Microsoft, ATCO, the Government of Canada and more. It will also provide an academic arc that threads together three fields of research by University of Calgary Faculty:

- Leadership development
- Technology implementation and design thinking
- Entrepreneurship, energy economics and building a business case

The Participants will be working on teams solving an energy innovation business case where they will integrate learnings from the program to pitch a business solution to industry's most senior leaders in a Shark Tank for real implementation and real capital.

<https://www.avatarprogram.org/>

Young Pipeliners Advisory Board

Key Takeaways – May 14, 2020

Industry Challenges	Industry Opportunities
<ul style="list-style-type: none">▪ Paused major projects, layoffs, and budget cuts▪ Ongoing operations, maintenance, and project execution▪ Continuing research despite global pandemic and budget cuts▪ Adjusting to the new normal post-COVID▪ Employee Safety and Mental Health▪ Energy literacy of the general public and stakeholders▪ Attracting young people to the industry	<ul style="list-style-type: none">▪ Reconciliation – collaboration with indigenous peoples beyond consultation▪ Diverse representation of the industry (e.g. young people’s voice)▪ Increased engagement with young professionals & students (pipeline industry as a career choice)▪ Increased utilization of technology (increased productivity and environmental performance)▪ Increased collaboration across oil and gas value chain



Input for YPAC’s Future Direction

Establish a platform for young pipeliners



Provide education for the young generation (increase energy literacy)



Share young professionals’ vision for the industry’s future



Connect academia, students, and industry professionals to innovate, solve problems and share of best-practices



Clearly align goals and success measures to unique & ambitious missions