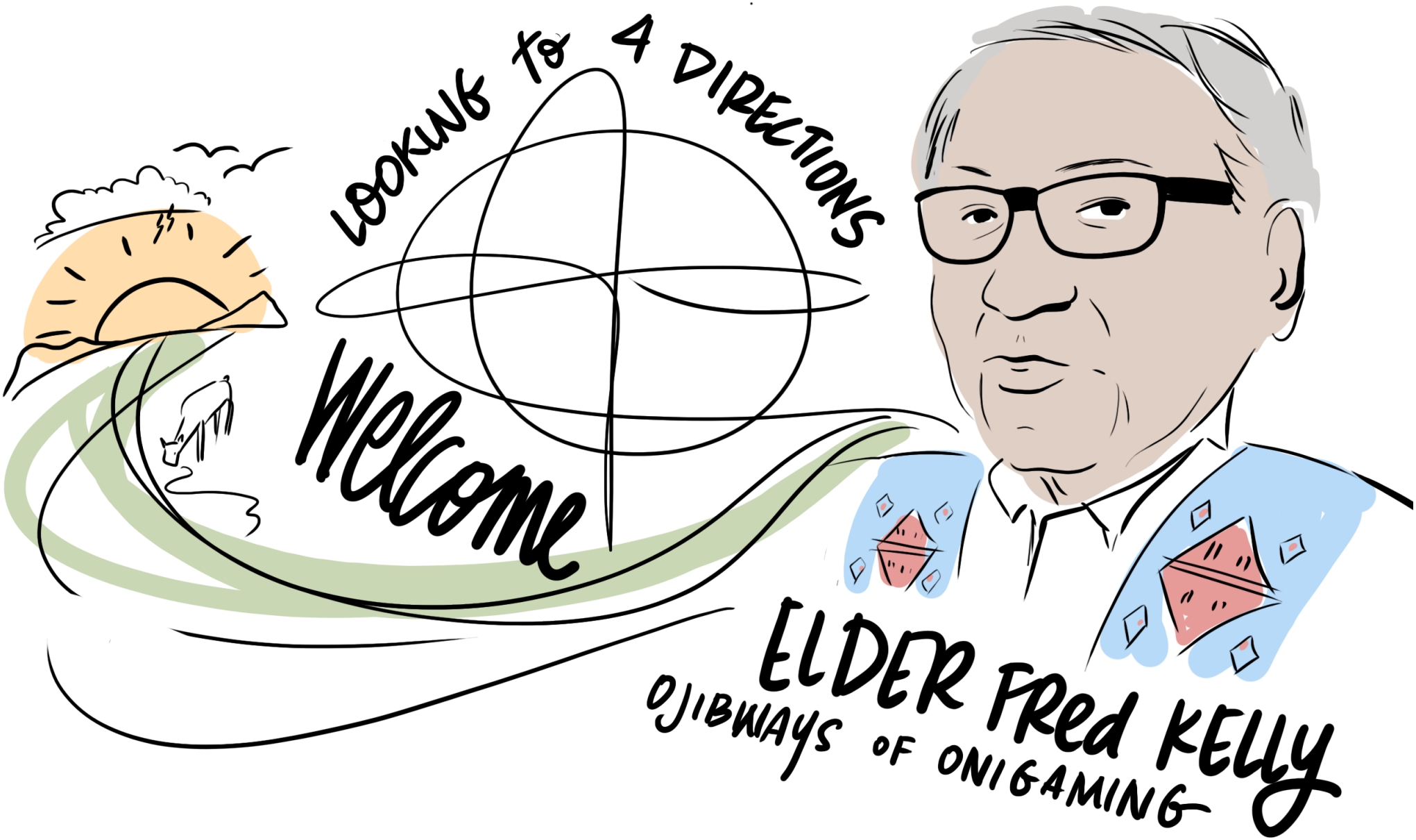

LOOKING TO 4 DIRECTIONS
Welcome
ELDER Fred KELLY
OJIBWAYS OF ONIGAMING

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021

WELCOME to the SUMMIT

WE WILL FIND A SOLUTION FOR CANADA...

JOIN US ON THIS JOURNEY... TOGETHER!



LAURIE SWAMI PRESIDENT and CEO
NUCLEAR WASTE MGT. ORGANIZATION

INPUT FROM PEOPLE IN CANADA

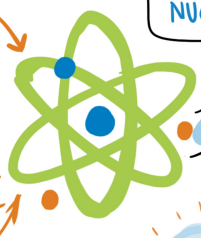


no pre defined OUTCOMES FOR THIS PROCESS!

INTEGRATIVE STRATEGY

WE'RE HERE TO DISCUSS CANADA'S NUCLEAR WASTE

nuclear medicine
NUCLEAR POWER
nuclear RESEARCH
are some BENEFITS...



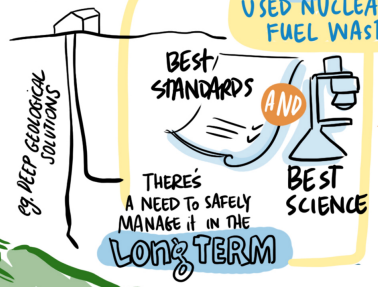
WHAT WILL CANADA'S LONG TERM SOLUTION BE?

WE NEED DIALOGUE



IT's engagement... ESPECIALLY WITH COMMUNITIES WHERE WASTE IS STORED

2% USED NUCLEAR FUEL WASTE -



98% WE HAVE a STRATEGY FOR LOW AND MEDIUM LEVEL WASTE

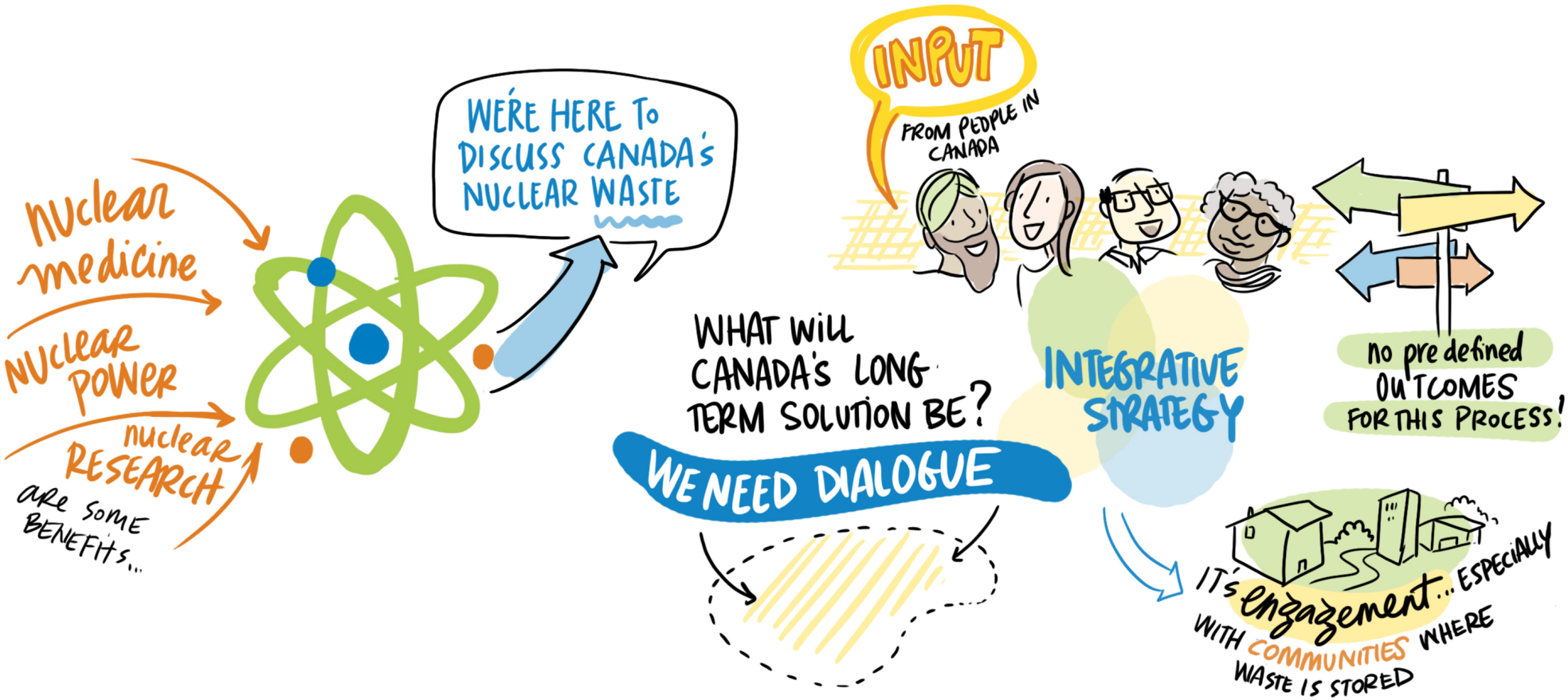


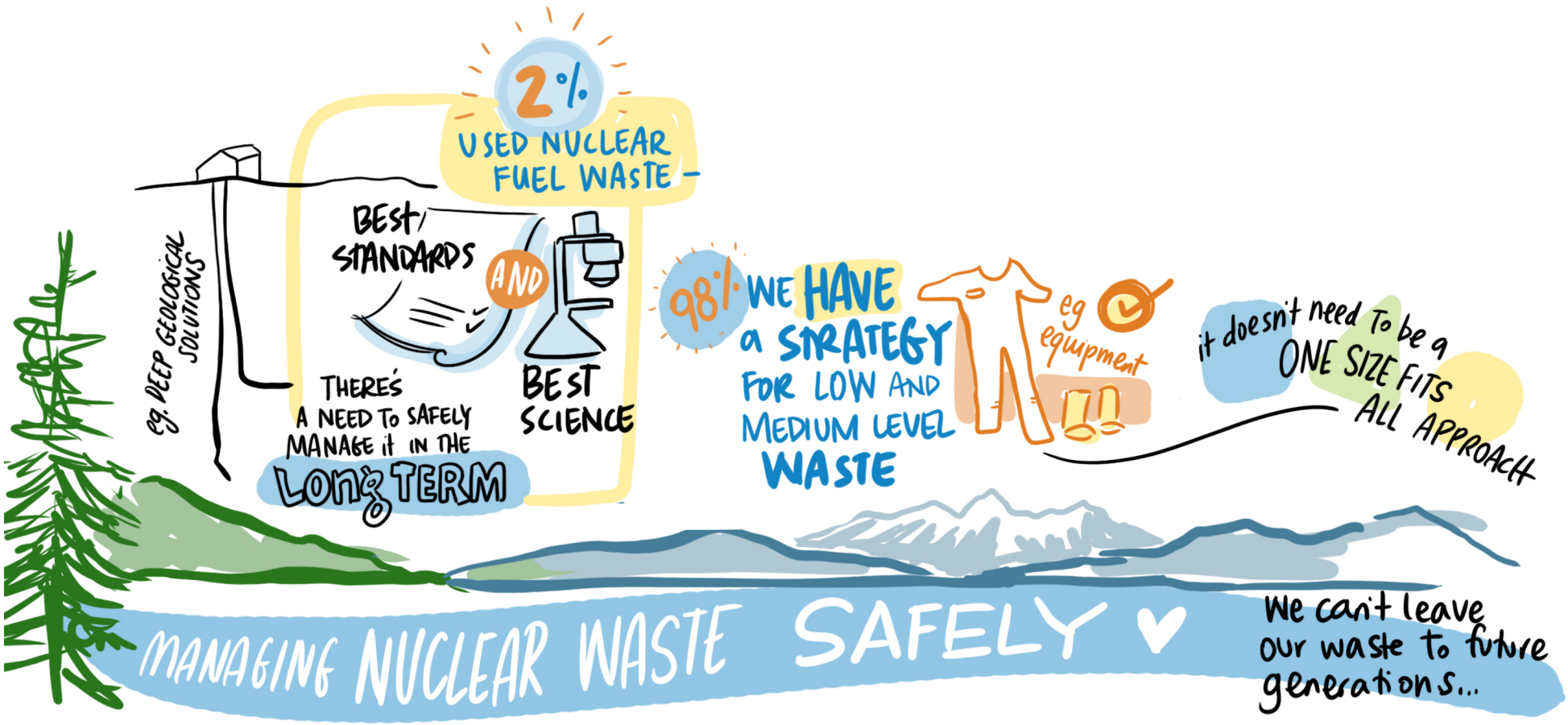
it doesn't need to be a ONE SIZE FITS ALL APPROACH

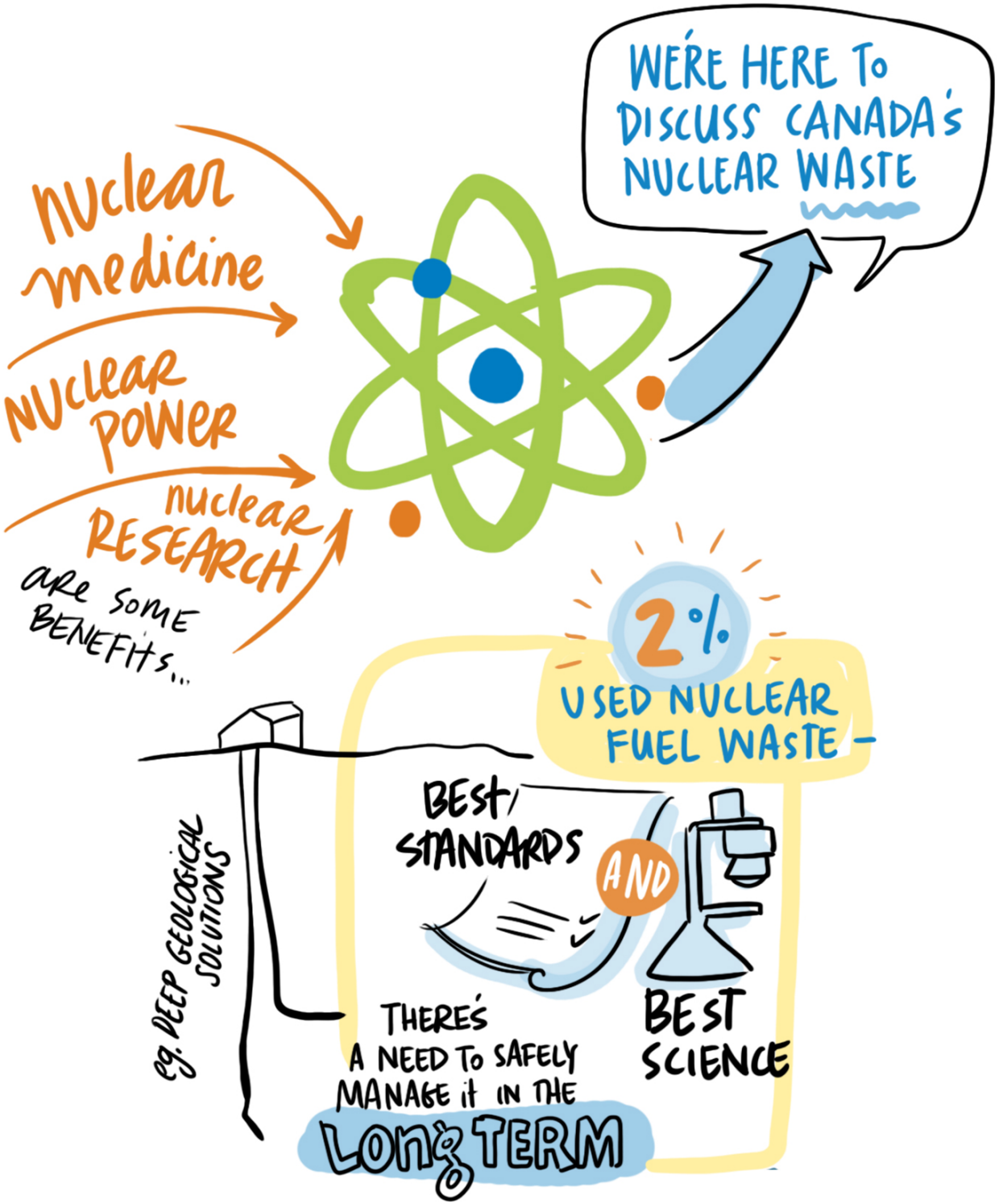
MANAGING NUCLEAR WASTE SAFELY ♥

We can't leave our waste to future generations...


WELCOME to the SUMMIT
WE WILL FIND A SOLUTION FOR CANADA...
JOIN US ON THIS JOURNEY... TOGETHER!
WE'RE HERE TO
INPUT
FROM PEOPLE IN
LAURIE SWAMI
PRESIDENT and CEO
NUCLEAR WASTE M&T. ORGANIZATION


nuclear medicine
NUCLEAR POWER
nuclear RESEARCH
ARE SOME BENEFITS...
WE'RE HERE TO DISCUSS CANADA'S NUCLEAR WASTE
INPUT
FROM PEOPLE IN CANADA
WHAT WILL CANADA'S LONG TERM SOLUTION BE?
WE NEED DIALOGUE
INTEGRATIVE STRATEGY
no pre defined OUTCOMES FOR THIS PROCESS!
IT'S engagement... ESPECIALLY WITH COMMUNITIES WHERE WASTE IS STORED


2%
USED NUCLEAR FUEL WASTE -
BEST STANDARDS
AND
BEST SCIENCE
eg. DEEP GEOLOGICAL SOLUTIONS
THERE'S A NEED TO SAFELY MANAGE it IN THE LONG TERM
98%
WE HAVE a STRATEGY FOR LOW AND MEDIUM LEVEL WASTE
eg equipment
it doesn't need To be a ONE SIZE FITS ALL APPROACH
MANAGING NUCLEAR WASTE SAFELY
We can't leave our waste to future generations..


WE'RE HERE TO DISCUSS CANADA'S NUCLEAR WASTE
nuclear medicine
NUCLEAR POWER
nuclear RESEARCH
ARE SOME BENEFITS...
2%
USED NUCLEAR FUEL WASTE -
BEST STANDARDS
AND
BEST SCIENCE
THERE'S A NEED TO SAFELY MANAGE it IN THE LONG TERM
eg. DEEP GEOLOGICAL SOLUTIONS


INPUT
FROM PEOPLE IN CANADA
INTEGRATIVE STRATEGY
no pre defined OUTCOMES FOR THIS PROCESS!



IT's engagement... ESPECIALLY WITH COMMUNITIES WHERE WASTE IS STORED

it doesn't need To be a ONE SIZE FITS ALL APPROACH

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP

Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021



CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

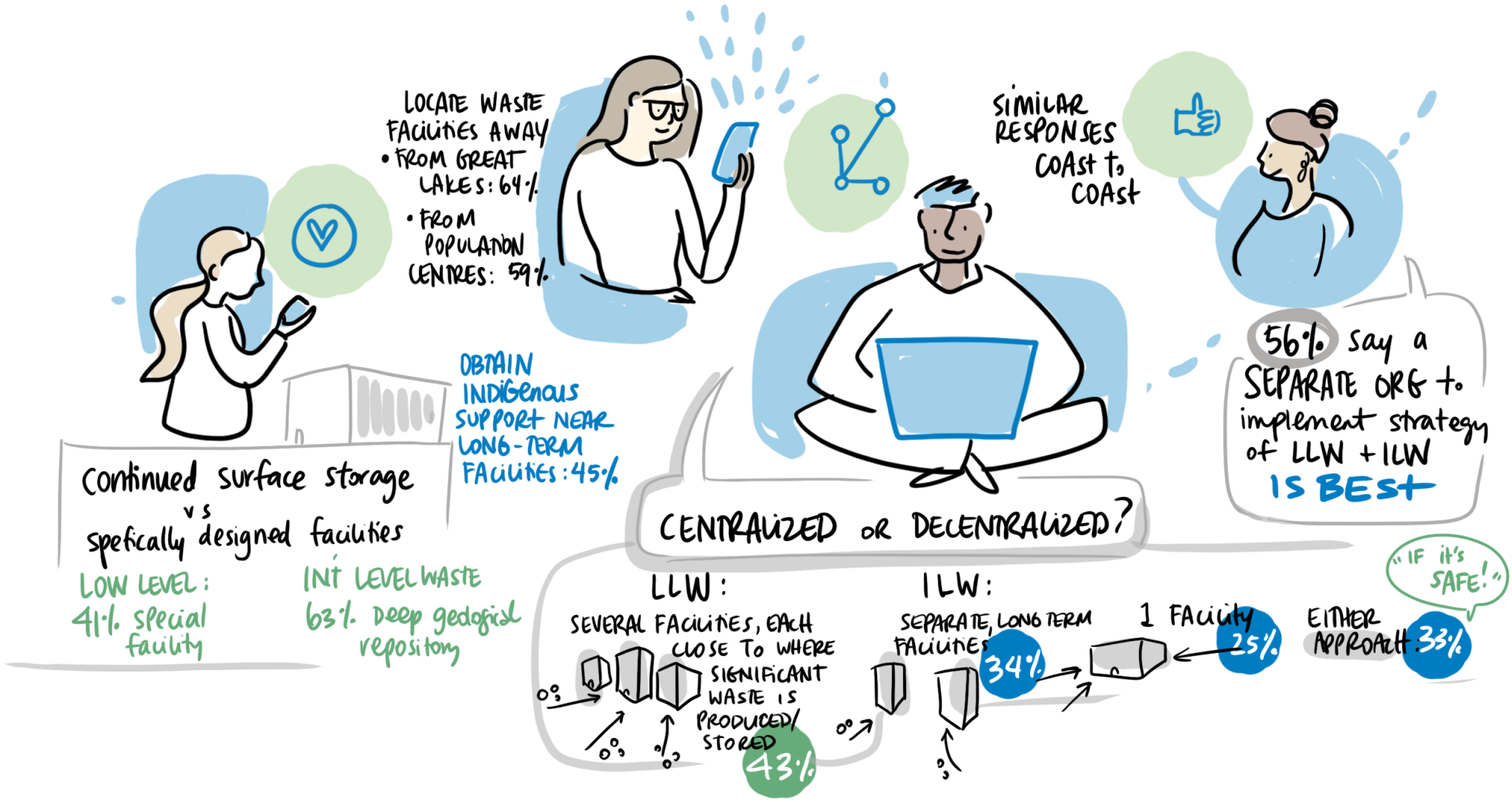
MARCH 30 - APRIL 1 · 2021

WHERE DO WE BEGIN: PUBLIC ATTITUDE RESEARCH

PAT BEAUCHAMP, HILL and KNOWLTON . STRATEGIES



EKOS SURVEY


LOCATE WASTE FACILITIES AWAY
• FROM GREAT LAKES: 64%
• FROM POPULATION CENTRES: 59%
SIMILAR RESPONSES COAST TO COAST
56% say a SEPARATE ORG to implement strategy of LLW + ILW IS BEST
OBTAIN INDIGENOUS SUPPORT NEAR LONG-TERM FACILITIES: 45%
Continued surface storage
vs
specifically designed facilities
LOW LEVEL: 41% special facility
INT LEVEL WASTE 63% Deep geological repository
CENTRALIZED OR DECENTRALIZED?
LLW:
SEVERAL FACILITIES, EACH CLOSE TO WHERE SIGNIFICANT WASTE IS PRODUCED/STORED
43%
ILW:
SEPARATE, LONG TERM FACILITIES
34%
1 FACILITY
25%
EITHER APPROACH: 33%
"IF it's SAFE!"

Guiding Principles

- PROTECT ENVIRONMENT 97%
- SAFETY 96%
- MEET/EXCEED REGULATIONS 96%
- BEST AVAILABLE KNOWLEDGE 96%
- ENSURE SECURITY 94%
- TRANSPARENT PROCESS 92%
- INDIGENOUS RIGHTS 76%

— and MORE —

FULL EN/FR PRESENTATION:
RADWASTEPLANNING.CA

A NEXT STEP



MINIMIZE TRANSPORTATION: 51%

THEMES

- MINIMIZE IMPACT on ENVIRONMENT
- REDUCE NEED FOR TRANSPORTATION
- PROMOTE TRANSPARENCY
- KEEP FACILITY/FACILITIES AWAY FROM POPULATION CENTRES
- REDUCE IMPACT ON FUTURE GENERATIONS

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021

POSSIBLE FUTURES

FORESIGHT ANALYSIS

break out of PARADIGMS
Prepare for the UNEXPECTED!

LEAH ZAIDI · MULTIVERSE DESIGN



IN 10,000 YEARS...

... What if we discover a NEW ELEMENT?
... What if become a MULTI-PLANET SPECIES?
... What if the METAVERSE is more desirable?

WHAT'S OUR NATURE?

DISCIPLINE: Intelligent DESIGN
- altered HUMANS

TRANSFORMATION: CIVILIZED REPLENISHING
- not utopian, but sustainable
- near collapse paves the way to put people + planet first
- Distributed power

ARTIFICIAL EARTH: CONTINUATION
- Unchecked entrepreneurship
- Values productivity
- AI, human/computer
- rich upgrade

COLLAPSE: FEUDAL COMPOUNDS
- 1B people only can survive
- Biodiversity collapse
- fear of the "OTHER"

4°C

WHAT STRATEGIES WILL HOLD UP FOR WASTE MANAGEMENT... REGARDLESS OF THE SCENARIO

WHAT MAY SOCIETY LOOK LIKE IN 100 YRS?



change can be QUICK + DRASTIC

we're ill-prepared..

FOLLOW THE SCIENCE!





FORESIGHT SCENARIOS:

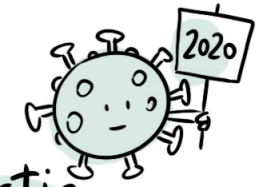
CONTINUATION
"BIZ AS USUAL"

DISCIPLINE

COLLAPSE

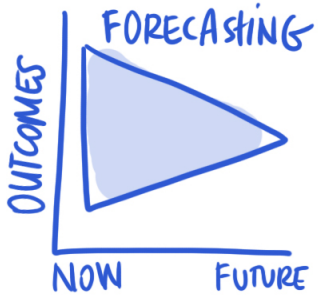
TRANSFORMATION

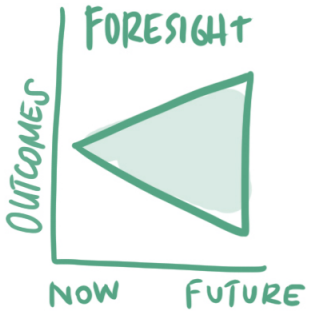
change can be QUICK + DRASTIC

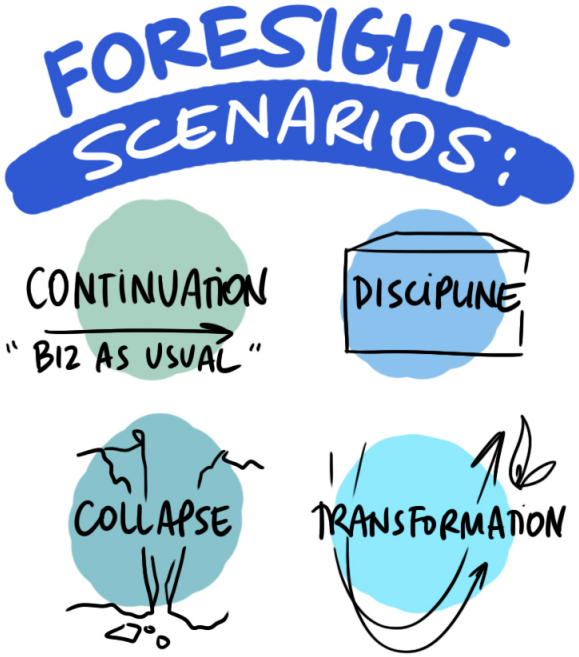


we're ill-prepared...

FOLLOW THE SCIENCE!







POSSIBLE FUTURES

FORESIGHT ANALYSIS

LEAH ZAIDI • MULTIVERSE DESIGN



break out of PARADIGMS
Prepare for the UNEXPECTED!

IN 10,000 YEARS...

... What if we discover a NEW ELEMENT?

... What if become a MULTI-PLANET SPECIES?

... What if the METAVERSE is more desirable?

WHAT'S OUR NATURE?

DISCIPLINE: Intelligent DESIGN

- altered humans

TRANSFORMATION: CIVILIZED REPLENISHING

- not utopian, but sustainable
- near collapse paves the way to put people + planet first
- Distributed power

ARTIFICIAL EARTH: CONTINUATION

- unchecked entrepreneurship
- values productivity
- AI, human/computer
- rich upgrade

COLLAPSE: FEUDAL COMPOUNDS

- 1B people only can survive
- Biodiversity collapse
- fear of the "OTHER"

4°C

WHAT STRATEGIES WILL HOLD UP FOR WASTE MANAGEMENT... REGARDLESS OF THE SCENARIO

WHAT MAY SOCIETY LOOK LIKE IN 100 YRS?

CANADIAN RADIOACTIVE WASTE SUMMIT

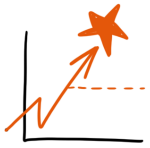
A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021

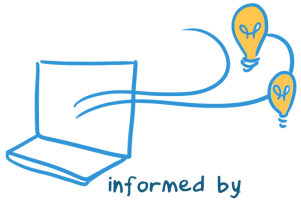
GUIDING PRINCIPLES



safety as the overarching principle



meet or exceed regulatory requirements



informed by the best available knowledge

ensure that the environment is protected



respect Indigenous rights and treaties



developed in a transparent way



inform and engage the public



ensure the security of facilities, materials, infrastructure, and information



where possible, make use of existing projects



incorporate Indigenous and Traditional Knowledge



fiscally responsible

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021

FLEXIBILITY in our STRATEGY

Safety
Health
Too!
it's HEALTH AND SAFETY

ENVIRONMENT SUSTAINABILITY

Think for the LONG TERM...

What are our TIMELINES?
WHAT DOES URGENCY LOOK LIKE?

$ are there KPIs

SAFETY CULTURE for generations

DOES THE LIST assume a HIERARCHY?

CAN WE BE MORE SPECIFIC?
RISK
ENGAGEMENT
CONSENT

WE COULD DO MORE EDUCATION
MORE PLAIN LANGUAGE!

CLEAR, EASY TO FOLLOW PROCESS FOR THE PUBLIC

ALL VOICES

RESPECT RIGHTS
ENGAGE YOUTH
INDIGENOUS engagement + traditional knowledge

nuclear communities
Meaningful relationships with MUNICIPALITIES
BEFORE
DURING
AND LATER

MORE RESEARCH - to be A WORLD LEADER

Let's be MORE CONCRETE!

don't use a PAN-INDIGENOUS APPROACH...

VALIDATING the PRINCIPLES ON WHICH TO BUILD the ISRW

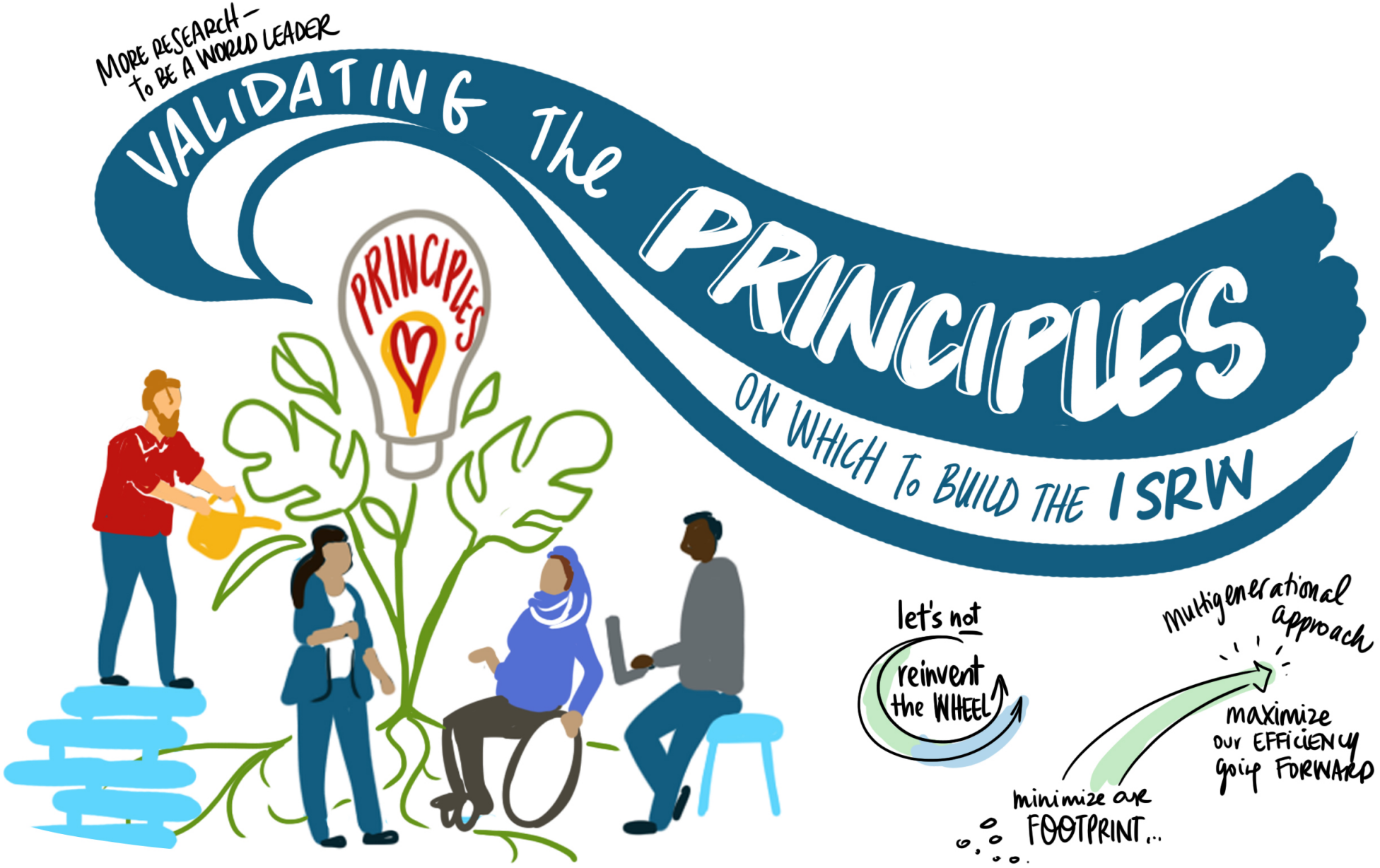


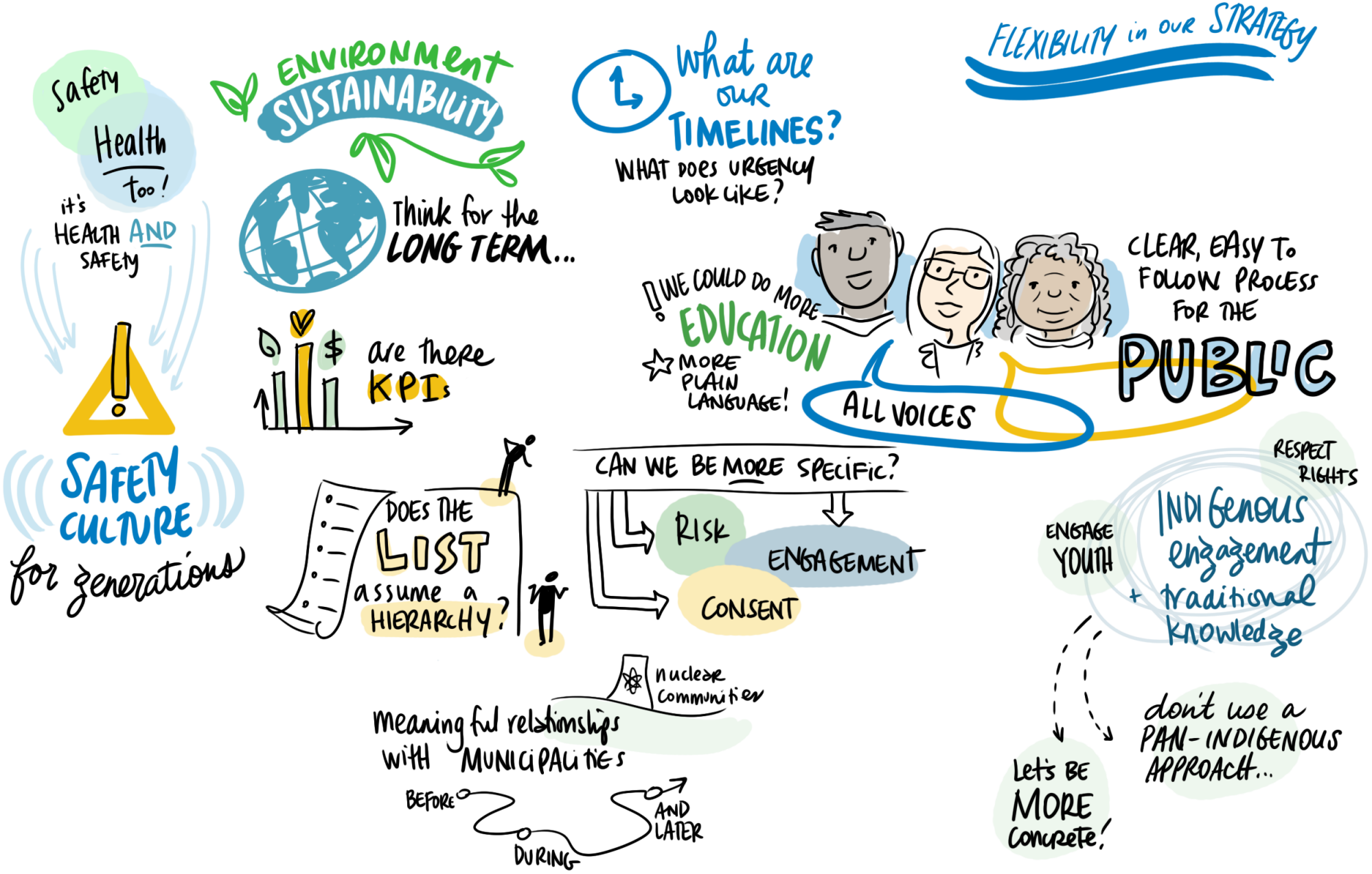
let's not reinvent the WHEEL

multigenerational approach

maximize our EFFICIENCY going FORWARD

minimize our FOOTPRINT...


MORE RESEARCH –
To BE A WORLD LEADER
VALIDATING The PRINCIPLES
ON WHICH To BUILD THE ISRW
PRINCIPLES
let's not
reinvent
the WHEEL
multigenerational
approach
maximize
our EFFICIENCY
going FORWARD
minimize our
FOOTPRINT...


Safety
Health
Too!
it's HEALTH AND SAFETY
SAFETY CULTURE
for generations
ENVIRONMENT
SUSTAINABILITY
Think for the LONG TERM...
$
are there KPIs
DOES THE LIST assume a HIERARCHY?
What are our TIMELINES?
WHAT DOES URGENCY LOOK LIKE?
FLEXIBILITY in our STRATEGY
WE COULD DO MORE EDUCATION
MORE PLAIN LANGUAGE!
ALL VOICES
CLEAR, EASY TO FOLLOW PROCESS FOR THE PUBLIC
CAN WE BE MORE SPECIFIC?
RISK
ENGAGEMENT
CONSENT
RESPECT RIGHTS
ENGAGE YOUTH
INDIGENOUS engagement + traditional knowledge
don't use a PAN-INDIGENOUS APPROACH...
Let's BE MORE Concrete!
nuclear communities
Meaning ful relationships with MUNICIPALITIES
BEFORE
DURING
AND LATER

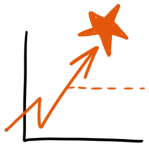
SOMMET CANADIEN SUR LES DÉCHETS RADIOACTIFS

du 30 Mars au 1er Avril

PASSONS À L'ÉTAPE SUIVANTE
Dans le cadre de la revue des déchets radioactifs du Canada



la sûreté comme principe primordial



satisfaire ou dépasser les exigences réglementaires



meilleures connaissances disponibles



protection de l'environnement



les droits et traités autochtones

Quels sont les 11 principes?



de manière transparente

La stratégie doit...



être développé de manière à informer et à engager le public



sécurité des installations, des matériaux, des infrastructures et des informations



Dans la mesure du possible... utiliser les projets existants



intégrer les connaissances autochtones et traditionnelles



financièrement responsable

DECADES OF BAD DECISIONS!



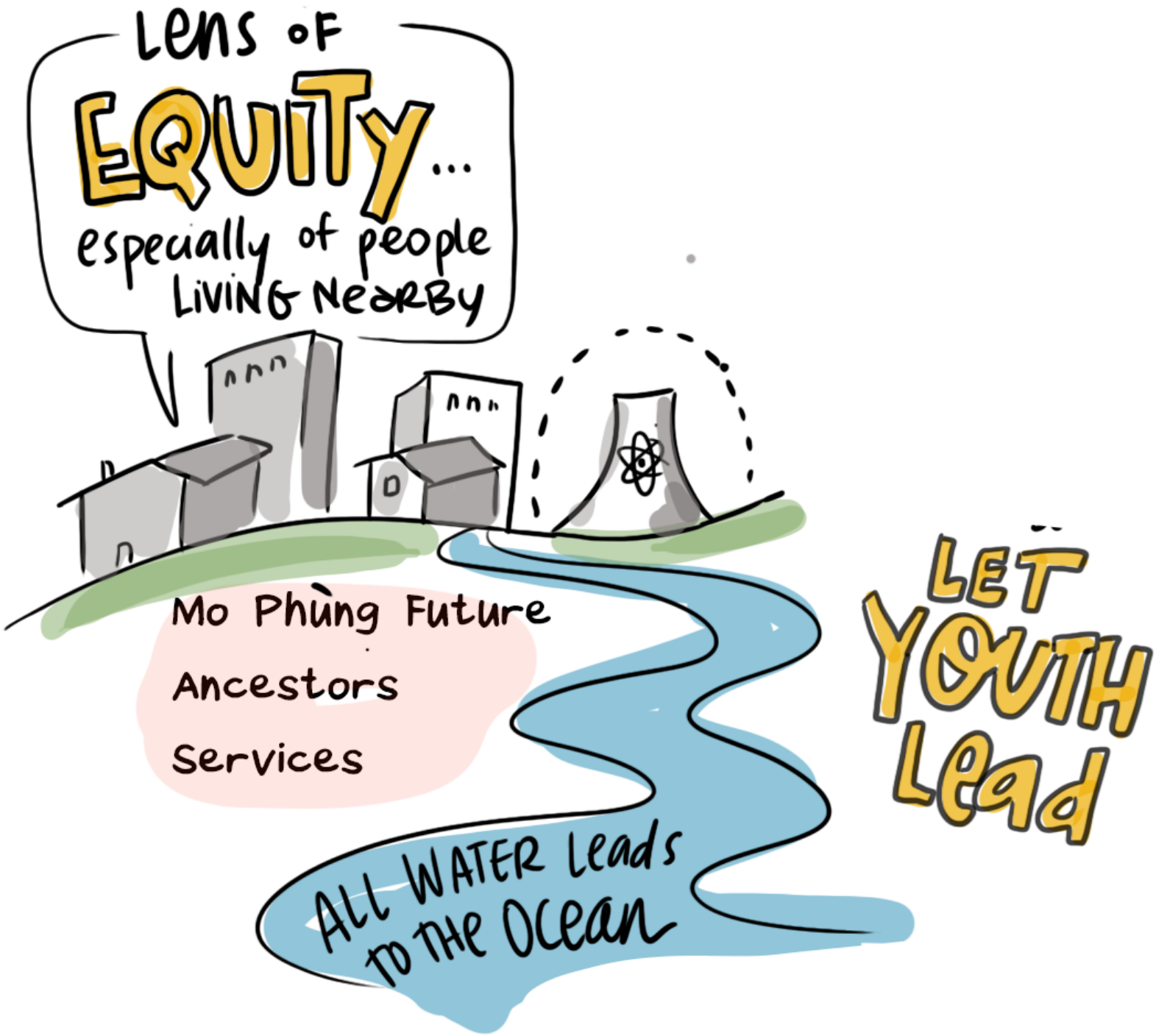
There's DISTRUST OF NWMO... it's SEEN AS AN INDUSTRY VOICE...

Ann Coxworth

Saskatchewan

Environmental Society

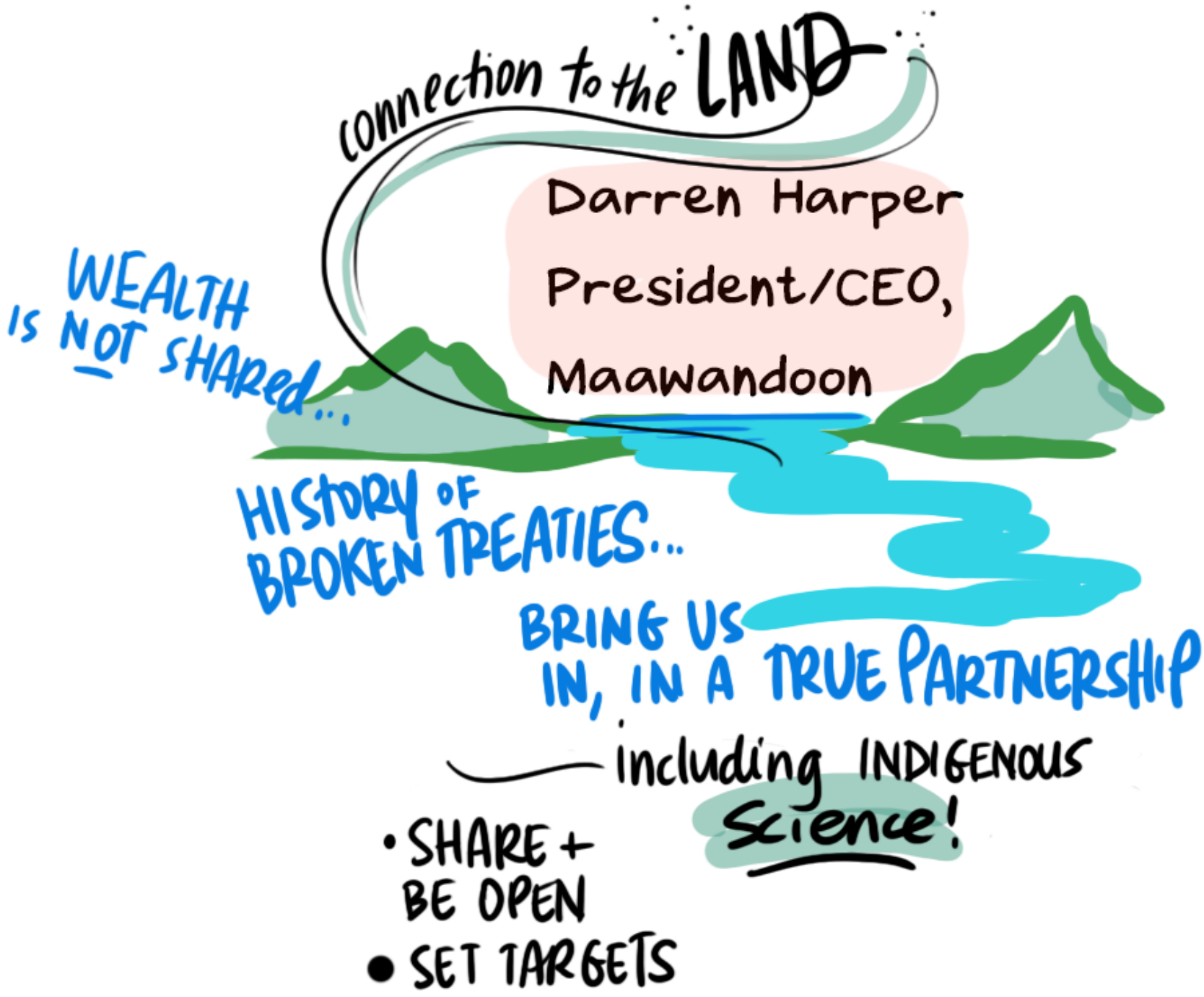
1. don't Rely on FUTURE MAINTENANCE
2. create less nuclear waste NOW
3. reform NWMO so it represents a broader public VOICE

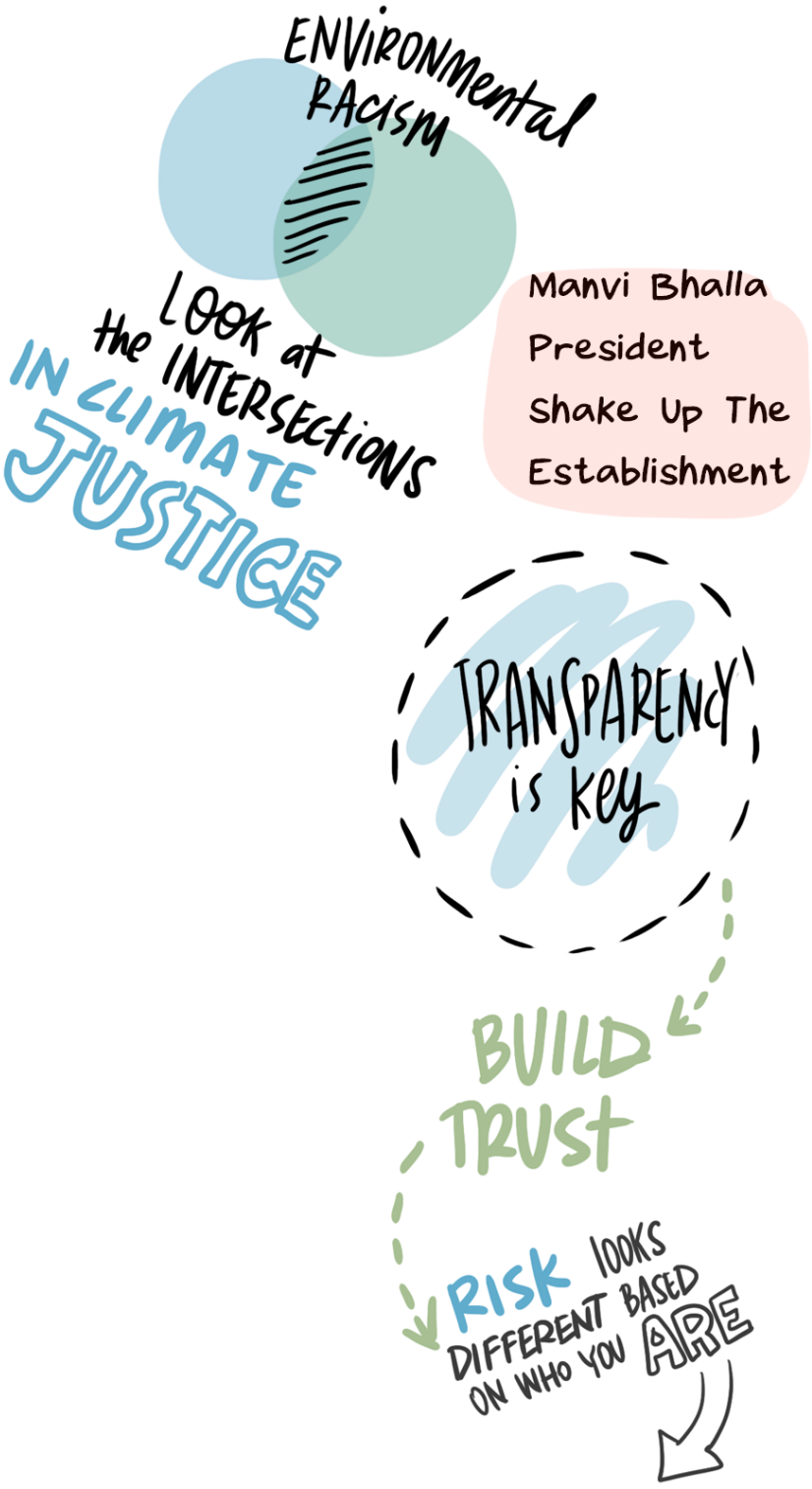

Lens of
EQUITY...
especially of people
LIVING NEARBY
Mo Phùng Future
Ancestors
Services
ALL WATER Leads
TO THE OCEAN
LET
YOUTH
Lead

3rd SECTOR PERSPECTIVES

bring groups into TRUE CONVERSATION




connection to the LAND
Darren Harper
President/CEO,
Maawandoon
WEALTH IS NOT SHARED...
HISTORY OF BROKEN TREATIES...
BRING US IN, IN A TRUE PARTNERSHIP
including INDIGENOUS Science!
• SHARE + BE OPEN
• SET TARGETS


ENVIRONMENTAL RACISM
LOOK at the INTERSECTIONS IN CLIMATE JUSTICE
Manvi Bhalla
President
Shake Up The
Establishment
TRANSPARENCY is key
BUILD TRUST
RISK looks DIFFERENT BASED ON WHO YOU ARE

Chief Ian Campbell,
MST Development
Corporation



BEYOND CONSULTATION...
INTO CONSENT



Squamish Nation:
Working with
COMPLEX jurisdiction –
and putting
ENVIRONMENT
> economics

TRIPLE BOTTOM
LINE –
Indigenous epistomologies
plus Western frameworks

eg "we were a REGULATOR,
not a STAKEHOLDER"

YOUTH:

we want an

OPEN DIALOGUE about NUCLEAR WASTE

HANDS-ON LEARNING

MORE EDUCATION about WASTE

"LOW level + intermediate waste is NOT spent fuel" - Matthew



We don't own the LAND...

Indigenous knowledge is ALIVE HERE

...eg ORAL HISTORIES FROM COMMUNITIES

-RebeKah



FUTURE GENERATIONS: PERSPECTIVES from YOUTH

A NEXT STEP
Part of Canada's Radioactive Waste Review

WHAT IS meaningful YOUTH ENGAGEMENT?

START EARLY!

it's not an easy topic to engage with!

Indigenous youth know the **HISTORY** of Canada locating WASTE near First Nations communities...
– David

TRUSTED YOUTH ORGANIZATIONS

We are CRITICAL THINKERS!

use ANALOGIES

connect to EXISTING Networks – especially for Indigenous YOUTH



innovation

WHat can we Leverage... to SOLVE OUR ENERGY PROBLEMS?
– Riya

FUTURE GENERATIONS: PERSPECTIVES from YOUTH

A NEXT STEP
Part of Canada's Radioactive Waste Review

WHAT IS Meaningful YOUTH ENGAGEMENT?

START EARLY!

it's not an easy topic to engage with!

innovation
WHat can we Leverage... to SOLVE OUR ENERGY PROBLEMS?
– Riya

Connect to EXISTING Networks – especially for Indigenous YOUTH

Indigenous youth know the HISTORY of canada locating WASTE near First Nations communities...
– David

TRUSTED YOUTH ORGANIZATIONS

use ANALOGIES

We are CRITICAL THINKERS!

we want an OPEN DIALOGUE about NUCLEAR Waste

HANDS-ON LEARNING

Outreach to SCHOOLS

MORE EDUCATION about WASTE

"LOW level + intermediate waste is NOT spent fuel" – Matthew

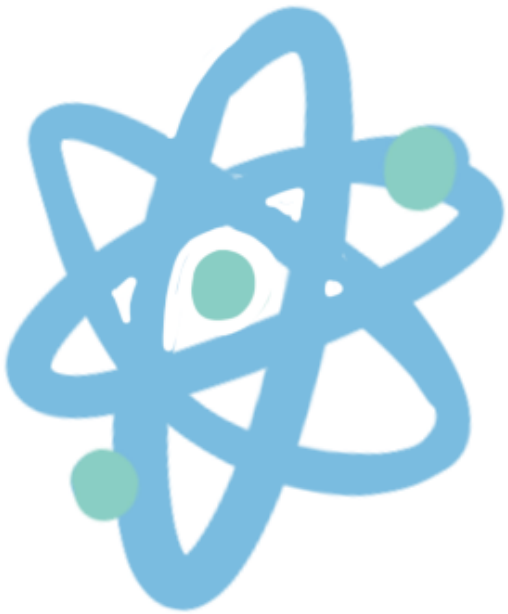
We don't own the LAND...
Indigenous knowledge is ALIVE HERE
...eg ORAL HISTORIES FROM COMMUNITIES
–RebeKah



FOR A SUSTAINABLE FUTURE

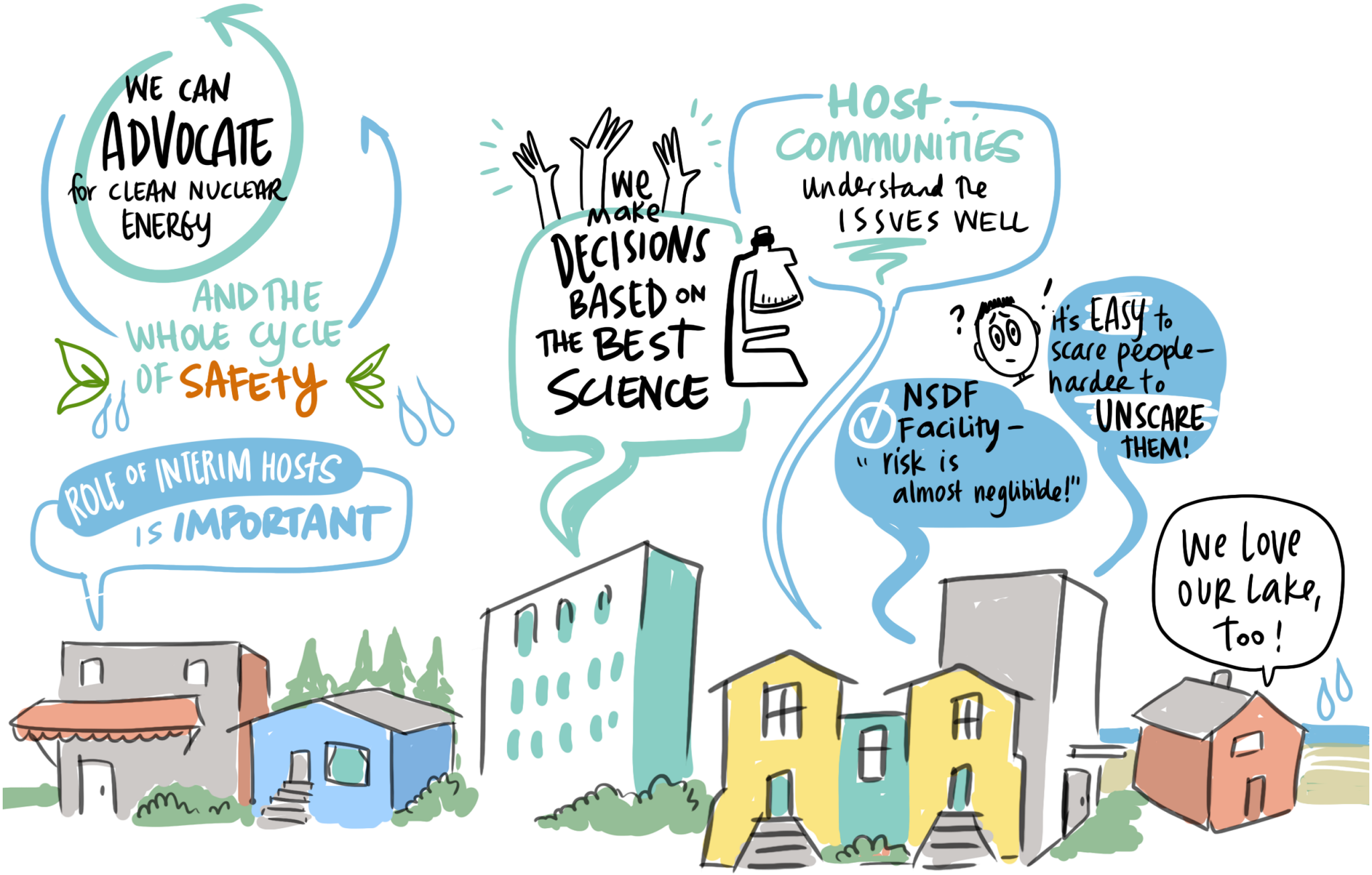
PANelists:

David Brooks-Bardwell
Matthew Marringer, NAYGN
Rebekah Wilson, Nuclear Waste Management Organization
Riya Karumanchi, SmartCane founder
Siobhan Takala, Let's Sprout
Osama Baig, moderator, Ontario Power Generation



OUR ADVICE:

- ✓ DO YOUR RESEARCH
- ✓ BUILD PARTNERSHIPS
- ✓ FOLLOW THE SCIENCE
- ✓ APPRECIATE THIS SAFE, CLEAN ENERGY


WE CAN ADVOCATE for CLEAN NUCLEAR ENERGY
AND THE WHOLE CYCLE OF SAFETY
ROLE OF INTERIM HOSTS IS IMPORTANT
We make DECISIONS BASED ON THE BEST SCIENCE
HOST COMMUNITIES understand the ISSUES WELL
NSDF Facility - "risk is almost negligible!"
It's EASY to scare people - harder to UNSCARE THEM!
We love OUR Lake, too!

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021

WHAT DO THE NEIGHBOURS THINK?

VIEWS from COMMUNITIES WHERE WASTE is STORED TODAY

Anne Eadie Mayor, Municipality of Kincardine
Suzanne D'Eon Mayor, Town of Deep River
Adrian Foster Mayor, Municipality of Clarington

MODERATOR,
KARINE GLENN
NWMO


MUST BE TRUE RELATIONSHIPS
2 WAY RESPECT
based on INDIGENOUS
WAYS OF KNOWING

mino-bimaadiziwin
living a GOOD LIFE

A NEXT STEP
Part of Canada's Radioactive Waste Review

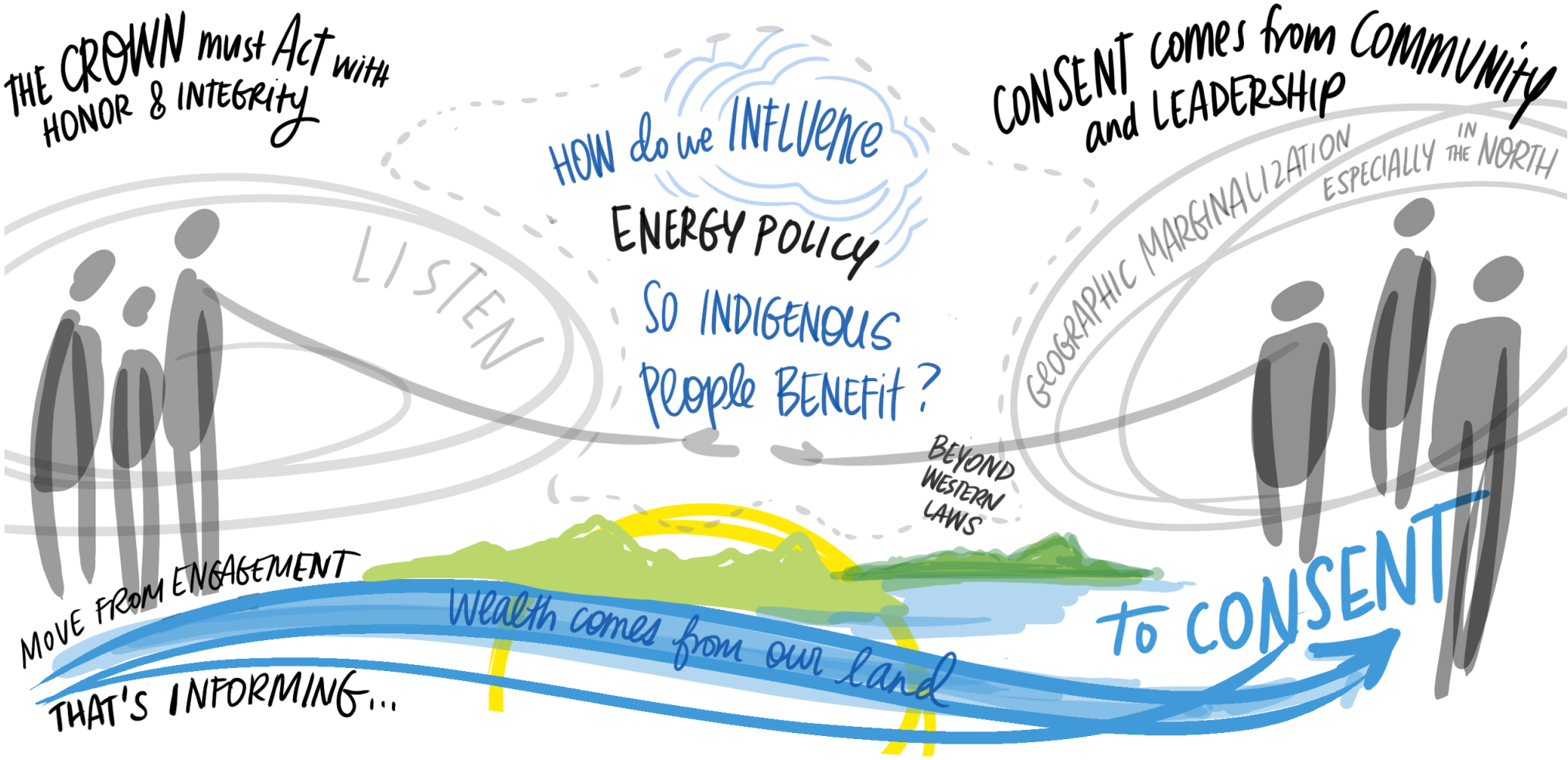
MODERATOR PHIL FONTAINE

KAELLA-MARIE EARLE, CANADA ENERGY REGULATOR • MATT LONG MÉTIS NATION OF ONTARIO • GARY MERASTY PETER BALLANTYNE CREE NATION • JOLAINE FOSTER. DELOITTE

in context of MULTIPLE ISSUES... → MORE CAPACITY IS KEY → PROVIDE RESOURCES - To BUILD TRUST → ADVISORY + TECHNICAL Committees → STRONG INDIGENOUS RELATIONS TEAMS (WITH SUPPORT) → THIS BUILDS a PATHWAY → MEANINGFUL ABILITY to SHARE KNOWLEDGE and CONSENT

make space for ceremony

don't wait... reach out!


THE CROWN must Act with HONOR & INTEGRITY
HOW do we INFLUENCE ENERGY POLICY So INDIGENOUS People BENEFIT?
CONSENT comes from COMMUNITY and LEADERSHIP
LISTEN
GEOGRAPHIC MARGINALIZATION ESPECIALLY IN THE NORTH
BEYOND WESTERN LAWS
MOVE FROM ENGAGEMENT
THAT'S INFORMING...
Wealth comes from our land
to CONSENT

CANADIAN RADIOACTIVE WASTE SUMMIT

A NEXT STEP
Part of Canada's Radioactive Waste Review

MARCH 30 - APRIL 1 · 2021




PLAIN LANGUAGE
COMMUNICATE
EDUCATE
BUILD TRUST
Listen to many perspectives
ENGAGEMENT
EARLY, MEANINGFUL and TRUE REPRESENTATION
OPEN, HONEST communication

FINDING COMMON GROUND

- RECOGNIZE RIGHTS HOLDERS: LOOK TO INDIGENOUS LEADERSHIP + FPIC!
- CONSIDER TRANSPORTATION
- COORDINATED APPROACH FOR EDUCATION
- NOT ONE SIZE FITS ALL FOR SOLUTIONS
- LOOK AT SCHOOLS...
- LOOK TO EMERGING INNOVATION and TECHNOLOGIES
- BUILDING CAPACITY

L'enèRGIE NUCLÉAIRE EST...

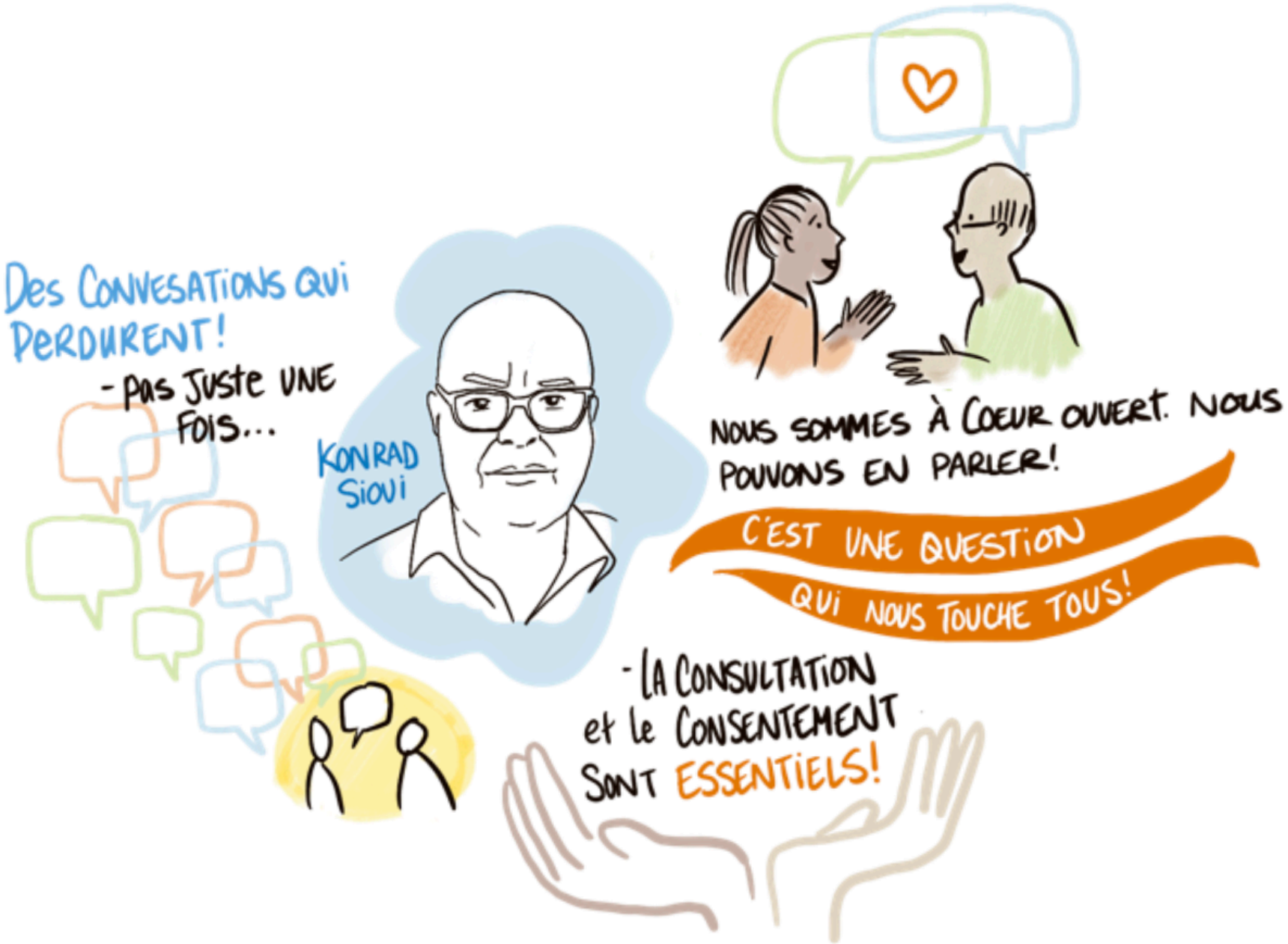
Très Régularisé au Canada

- Très Réputés
- AUCUN ACCIDENT MAJEUR.

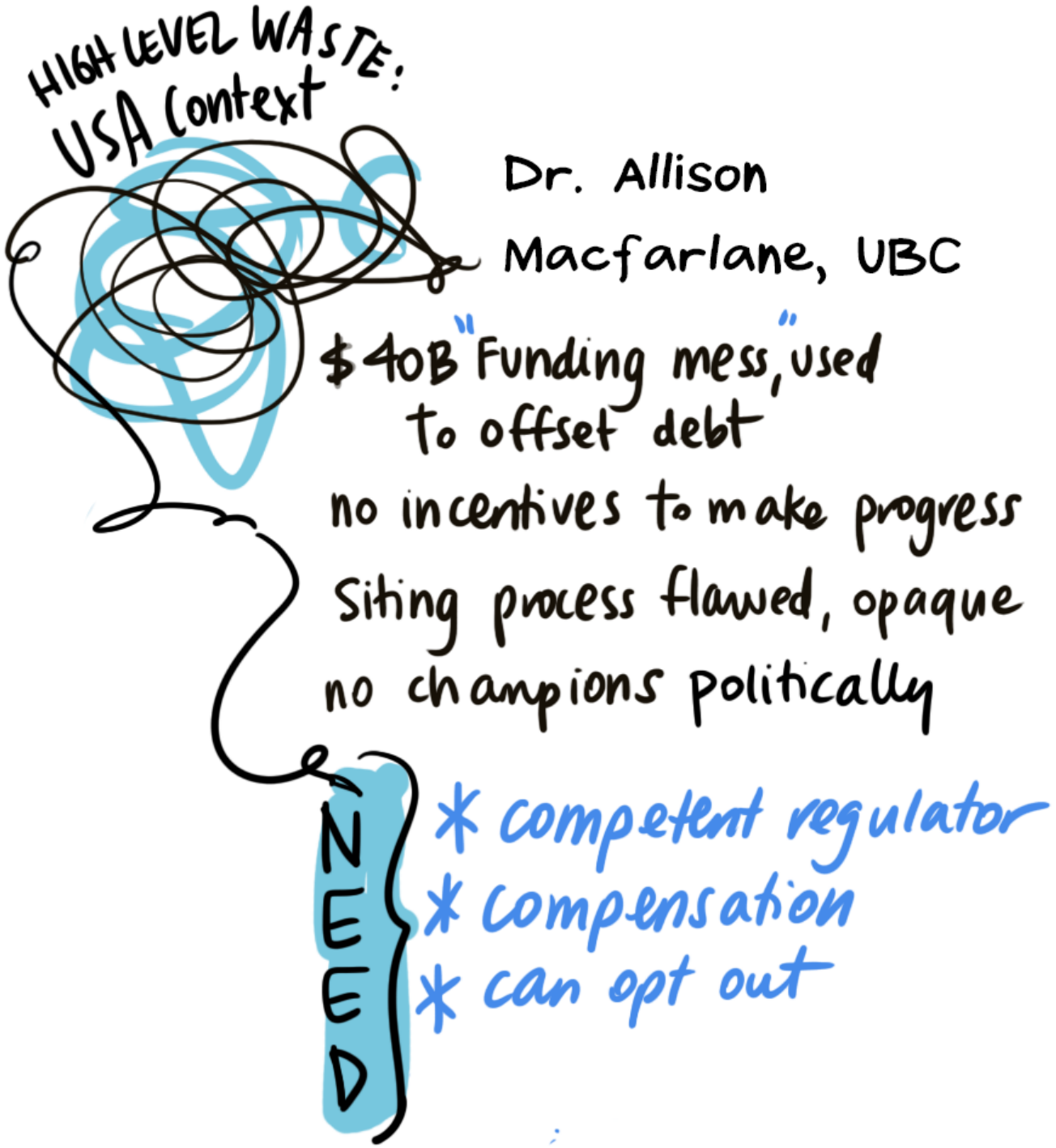


Chaque personne a un rôle à jouer

Même en temp que non-expert!


Des Convesations qui perdurent!
- pas juste une fois...
Konrad Sioui
Nous sommes à coeur ouvert. Nous pouvons en parler!
C'est une question qui nous touche tous!
- la Consultation et le Consentement sont ESSENTIELS!


NOUS DEVONS :
PONDERER LES RISQUES ET LES METTRE EN RELIEF AVEC D'AUTRES RISQUES
"QU-ES-CE QUI VOUS PRÉOCCUPE?
COMMENT ASSURER LA CONTRIBUTION DES FRANCOPHONES DANS LA CONVERSATION?
COMMUNAUTÉS
▷ Réponse à l'URGANCE


HIGH LEVEL WASTE:
USA Context
Dr. Allison
Macfarlane, UBC
$40B "Funding mess," used to offset debt
no incentives to make progress
Siting process flawed, opaque
no champions politically
NEED
* competent regulator
* compensation
* can opt out

James McKinney, Integrated Waste Mgt, Nuclear Decommissioning Authority

SCIENCE

SOCIAL

ADDRESS WASTE THAT Isn't easily CATEGORIZED

A JOURNEY WASTE MANAGEMENT:

HOW WILL YOU DISMANTLE What you Create?

DIVERT!

John Weingart, Rutgers University – in 1990's

EVOLVED into A VOLUNTARY SITING PROCESS





LOCAL DEMOCRACY

+ more control for town
+ find acceptable sites, not "BEST"
+ find another site to CLEAN UP - for NET PLUS BENEFIT
+ clear FINANCIAL BENEFITS

SAFETY Risk to CULTURE

building too close to WATER

engage First Nations MEANINGFULLY

What were real Risks?

what was entire nuclear landscape?

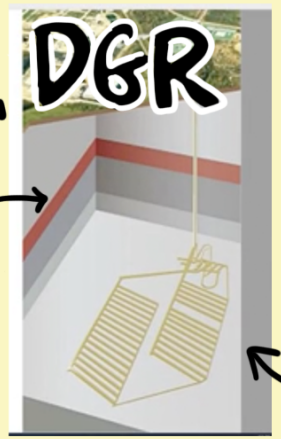
OUR CONSENT was a BIG WIN

the community process WAS Too sHoRt—



Paul Jones, Saugeen Ojibway Nation

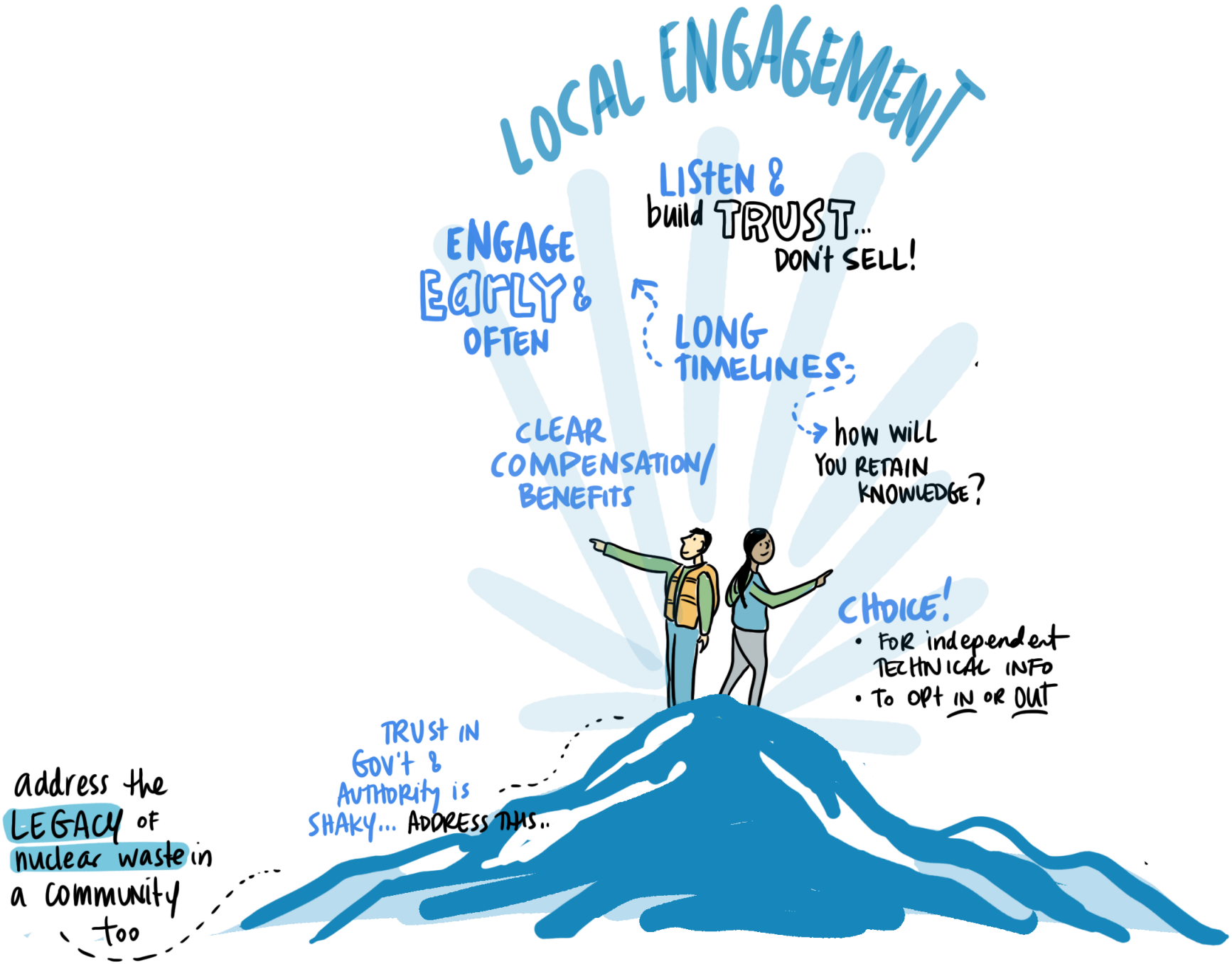
2 decades' timeline

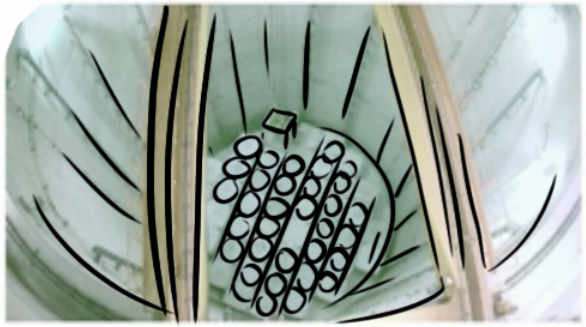


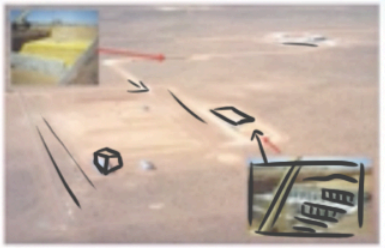
680m below ground

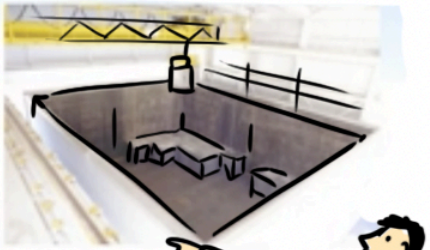
did not PROCEED

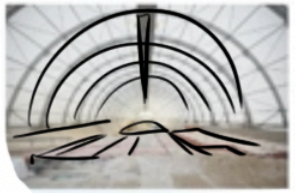
Kapil Aggarwal, Nuclear Waste Mgt, Ontario Power Generation


LOCAL ENGAGEMENT
LISTEN & build TRUST... DON't SELL!
ENGAGE EARLY & OFTEN
LONG TIMELINES:
how will you RETAIN KNOWLEDGE?
CLEAR COMPENSATION/ BENEFITS
CHOICE!
• FOR independent TECHNICAL INFO
• To OPT IN OR OUT
TRUST IN GOV't & AUTHORITY is SHAKY... ADDRESS THIS..
address the LEGACY of nuclear waste in a community too















INTERNATIONAL PROJECT EXAMPLES