


4Revs

co-creative ecosystem



A large, jagged iceberg floats in the ocean under a clear blue sky. A full moon is visible in the sky, positioned between two of the iceberg's peaks. The water is dark and calm.

4Revs

helping humanity solve its main survival challenges in one generation (2020-2050)

Vision 1: Discover and help implement new solutions to humanity's main survival challenges

Vision 2: Support sustainability innovation in sponsor corporations

Vision 3: Empower social innovators and entrepreneurs and help them scale-up

What is 4Revs?

4Revs (= 4 Revolutions) is a **unique, co-creative ecosystem** which aims to help humanity solve its four main survival challenges (food/water/resource/energy & climate change) in one generation – between 2020-2050.

We will partner with corporations, social ventures, sustainability practitioners and entrepreneurs, educators, public and civil organizations and creative minds on all six continents to inspire and implement next generation initiatives in each of the 4Revs.

What makes the 4Revs Co-creative Ecosystem unique and valuable?

Social Innovators and sustainability practitioners on six continents discover 4Revs seeds and inspiration for revolutionary innovation



Corporations and public institutions meet their innovation needs, create new partnerships and build capacity (R&D + HR)



The 4 Survival Challenges

The Challenges



Food Agriculture Protein supply

How do we provide food, and reduce food waste, to support a population of 8.6 (2030) – 11.2 (2100) billion people on Earth?

How do we conduct agriculture sustainably to produce healthy food and protect both humans and the ecosystem as a whole?

How do we secure a sufficient and sustainable supply of protein?



Water Water Tech Water management

How do we manage water resources sustainably to avoid severe water stress (projected by the MIT to affect 52% of global population in 2050).

How do we help spread new water technologies and management systems in order for them be useful and effective in all parts of the world?



Resources Circular Systems Ecosystem Usage

How do we manage both natural and mineral resources sustainably to enable a continued and sustainable supply.

How do we create circular economic and social systems that minimize waste and pollution of the Earth's ecosystems?

How do we manage land and key ecosystems sustainably?



Energy Climate change Greenhouse Gasses

How do we secure sufficient energy supply for a growing population without compromising human health or contributing to severe climate change?

How do we rapidly decarbonize the economy and society as a whole?

How do we manage and adapt to future changes caused by climate change?

The Opportunities

Some examples:

1. Food waste reducing systems & tech
2. Sustainable agricultural practices
3. Sustainable aquaculture
4. Plant-based or insect-based protein
5. Indigenous knowledge and plants
6. Healthier food- and lifestyles

Eating is about much more than survival; it is a social and political activity with a multitude of under-exploited local ideas and traditions.

Some examples:

1. Water shed management
2. Water conserving technologies
3. Better water management systems
4. Cheaper and sustainably operated desalination systems
5. Filtration systems and technologies

Water is the great paradox of our human survival - essential, abundant, and still so fragile and difficult to use. Closely linked to both energy and food.

Some examples:

1. Sustainable forestry practices
2. Urban mining (circularity)
3. Innovation around plastic use and technology (including lifestyles)
4. Resource alliances and consortiums
5. Ecosystem restoration

Cyclical and sustainable resource use is closely related to all agricultural and industrial activity while also being inextricably linked to lifestyle changes.

Some examples:

1. Renewable energy supplies
2. Utilization of CO₂ as a resource
3. Energy conserving lifestyles, systems and technologies
4. Climate adaptation measures in cities and agriculture

Human health and the continuation of life on Earth are critically influenced by the way we produce and consume energy and minimize climate disruption.

The 4Revs Global Team



socialab



A local2global network of young sustainability practitioners/social innovators/next generation leaders, presently with 500 people in 37 countries. **NELIS provides the global secretariat for 4Revs** (based in Tokyo, Japan) and **regional 4Revs program managers**.

www.nelisglobal.org

Social venture from Colombia, active in 6 Latin American countries. **Utilizes an online network of around 600,000 “creative minds” in 92 countries to respond to innovation challenges**/calls for innovation in the social and environmental spheres.

<https://socialab.com/co/en>

As **Technology Partner**, Salesforce.com Japan will help build the **4Revs IT platform including 4Revs case study database**.

A boutique consulting firm in Tokyo specializing in product development/design thinking/creativity techniques. mct will be helping (pro-bono) with the research gatherings and global summit + will be the **business partner for individual, co-creative tools**.

www.mctinc.jp

Program Managers and Research Team

USA/North America

Katie Conlon



Colombia/South America

Lucas Sanchez Martinez



Finland/Nordics

Jovin Hurry



Belgium/EU

Noemi Salantiu



UK/Europe

Puja Thiel



India/East Asia

Shravan Shankar



Nigeria/Africa

Felix Iziomoh



Each program managers leads a team of 2-3 researchers scanning the horizon for 4Revs cases/ventures/products & services/new lifestyle. The entire research team (around 25-28 people) gets the chance to interact with and inspire innovation in the sponsoring corporations through the “thematic communities” on the IT platform built in collaboration with Salesforce.com. Researchers may also have the opportunity to provide short courses/training through Next Leaders’ University.

Project Outline

4Revs Year One (April 2020-March 2021)

Year One: 2020.4~2021.3

① 4Revs Research Project

Action-oriented research project, which engages young social innovators and sustainability practitioners on all six continents to find the most inspiring and truly revolutionary examples of implemented innovation – seeds - on the 4Revs. A global, open, R&D project with instant learning and business insights.

② 4Revs Global Summit

4Revs Global Summit hosted by NELIS in Tokyo where young leaders and innovators from six continents and participate in workshops, hackathons and co-creative sessions with staff from sponsoring corporations.

③ 4Revs Intelligence

The most important, recent scientific data on the 4Revs, filtered and presented on the 4Revs IT platform + hints relating to the most important conferences worldwide.

④ Next Leaders University (NLU)

Short, intensive learning modules on Next Leaders' University (NLU) to help train a new generation of “sustainability intrapreneurs”.



Discover
Learn for R&D
Train intrapreneurs
Engage new partners

Innovate w. global network
Develop new opportunities
Build agile, collaborative ecosystem

Project Outline

How 4Revs will evolve – our 30-year roadmap



Project Outline

Year One (2020) : Co-Creative Research and Global 4Revs Summit

① 4 Revs research project



② 4Revs Global Summit

The 4Revs Global Team will engage young social innovators, sustainability practitioners, and creative minds on all six continents to uncover the most revolutionary, inspiring, next generation business and lifestyle initiatives relating to the 4Revs.

NELIS will organize a global summit in Tokyo with 4Revs as main theme. Social innovators and practitioners as well as 4Revs sponsors from all corners of the world will join for an intriguing two-day program.

What is gained by joining (output):



Access to research project database / final report (December 2020) / information on and/or contact links to people/organizations behind initiatives.



Participation in four 4Revs research gatherings, workshops, and Report launch meeting, December 2020 (in Tokyo w. global streaming).

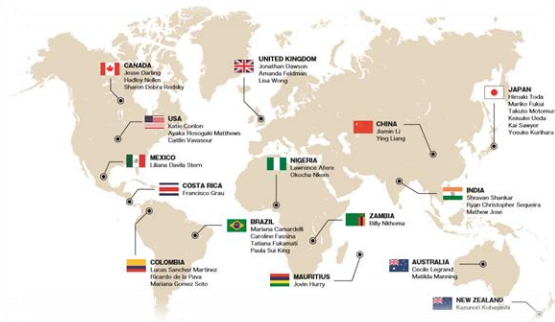
What is gained by joining (output):



Plenary sessions and in-depth workshops on the 4Revs / research insights presented directly by 4Revs research team / sustainability talks “pitch day” with social entrepreneurs



Networking opportunity with social innovators and sustainability practitioners from six continents + with participants from other 4Revs sponsor corporations.



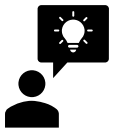
Project Outline

Year One (2020) : 4Revs Intelligence and Next Leaders' University

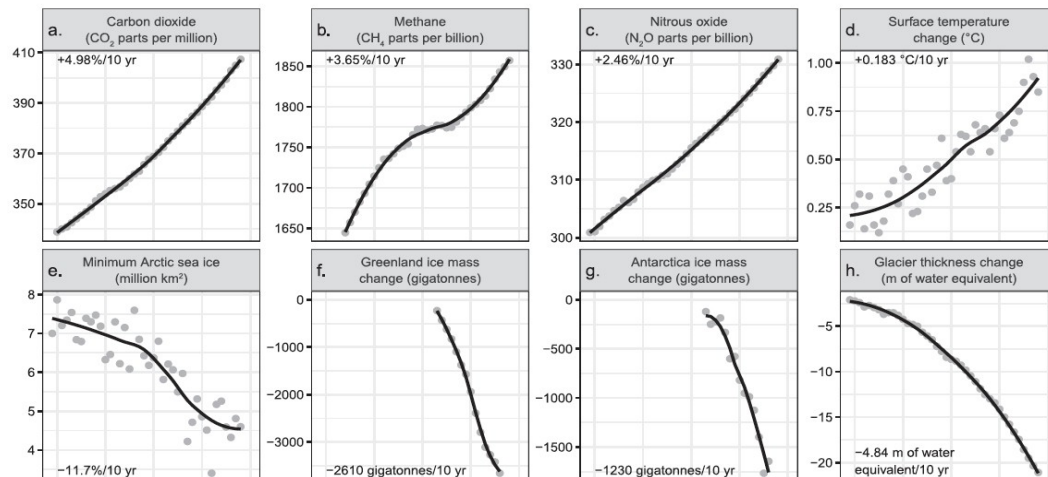
③ 4 Revs Intelligence

The most important, recent scientific data on the 4Revs, filtered and presented on the 4Revs IT platform + hints relating to the most important conferences worldwide.

What is gained (output):



Continuous access to relevant intelligence (recent and important scientific data and reports) and information on the most important, relevant international events and conferences relating to the 4Revs.

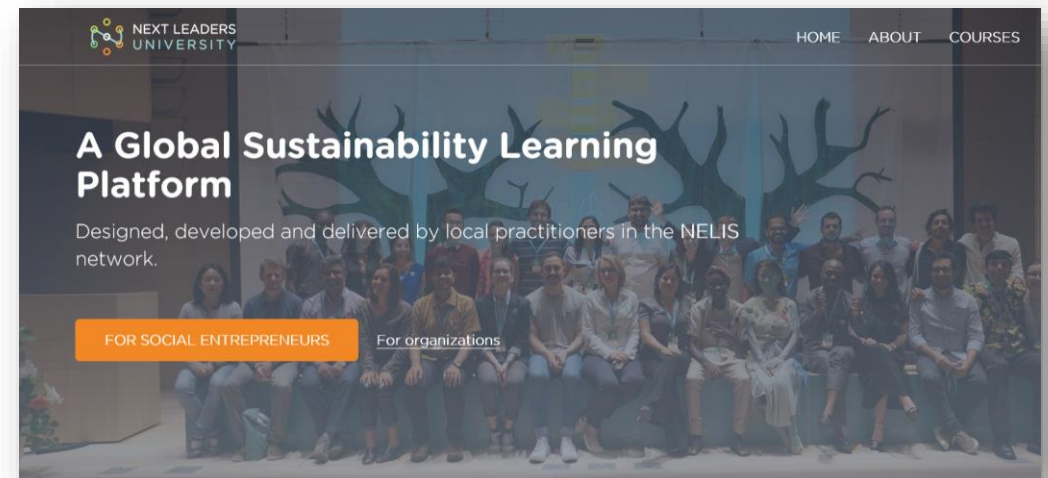


Source: BioScience

④ Next Leaders' University (Learning Platform)

Next Leaders' University (NLU) will provide around 30 12 min. online courses (in English) on key sustainability topics, taught by practitioners in the NELIS network in 2020, adding new courses each year. 4Revs sponsors companies get a license to utilize these teaching modules for in-house training, with or without facilitation by NELIS members. Each year, additional short courses will be added.

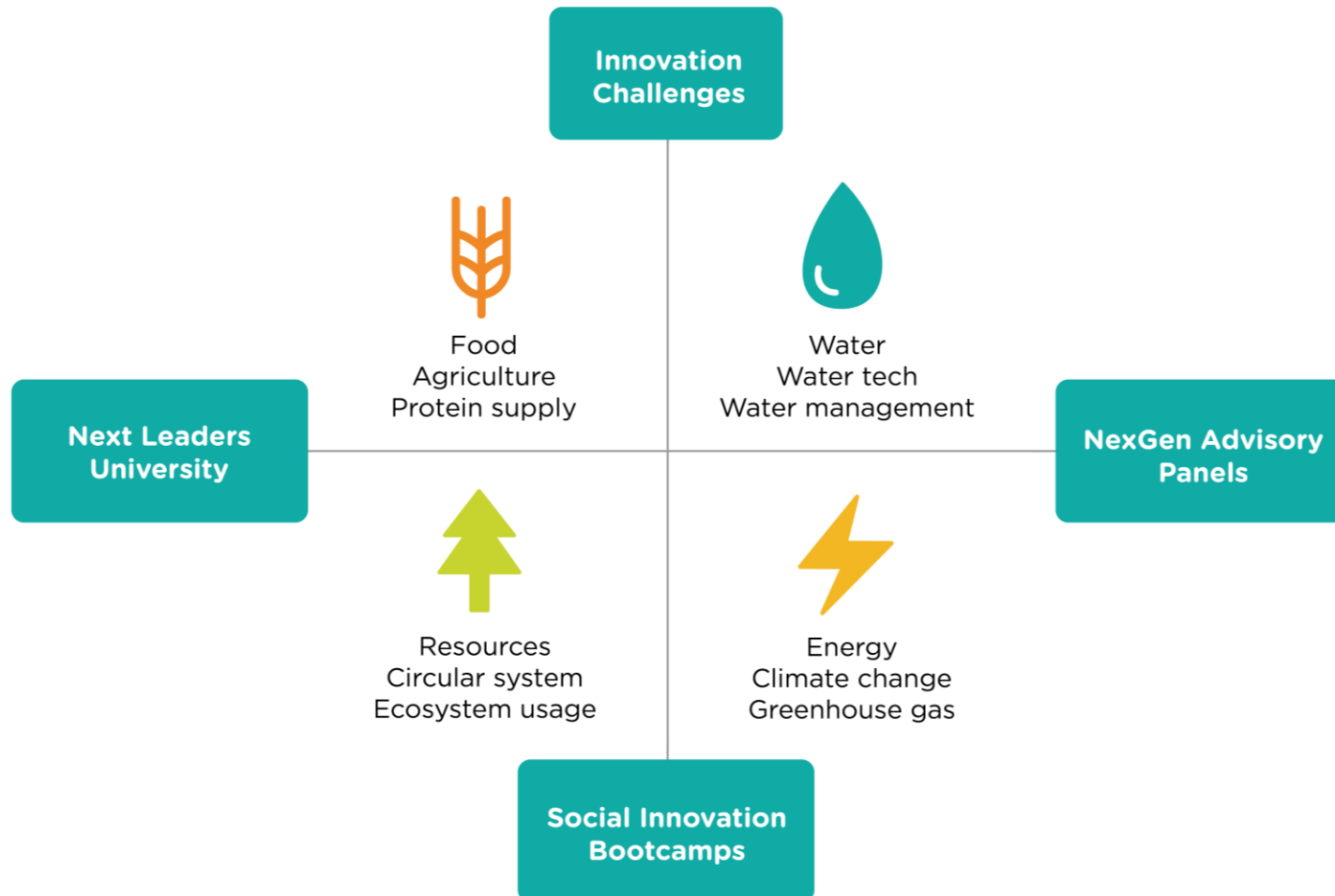
NLU also provides the opportunity to utilize longer and/or customized teaching modules with face-to-face facilitation by the course creator (for a separate fee – see 4Revs Appendix)



Project Outline

Ongoing: Individual 4Revs service offers – co-creative tools

By joining the 4Revs co-creative ecosystem, sponsor corporations can, at any time, work with the 4Revs secretariat and global team to utilize the **four service offers/co-creative tools provided by the 4Revs co-creative ecosystem** (for a separate fee).



The **co-creative tools** can help your organization to:

- ① Learn and innovate around specific sustainability topics and R&D challenges
- ② Connect directly with the 4Revs global talent pool and build a customized innovation ecosystem

NB: For details on each individual service offer, see 4Revs Appendix

Project Outline

Companies that have joined Year One Program (from April 2020)

As of March 1st, 2020:

8 PILLAR SPONSORS (main sponsors – max. 10 in Year One):

Panasonic, Toshiba, Marubeni (trading, food, energy, forestry, lifestyle products), NEC, Tokyo Gas, Unisys (IT), Salesforce.com, Mizuho Financial Group (expected)

14 COMMUNITY PARTNERS

Suntory (food and beverages), Marui Group (Department Stores & Finance), SG Holdings (transportation), Fuji Film, Teijin (chemicals and materials), Sumitomo Mitsui banking Corporation (SMBC), Gakken (education and elderly care), Mitsubishi Corporation Life Sciences (food, life science), Marelli (automotive parts), Amita Holdings (recycling), Taneya Group (confectionery), Epson, Kao (personal articles/toiletries), Brother Industries (sewing machines, printers)



4REVS
CO-CREATIVE ECOSYSTEM

Co-Creative Ecosystem

Linking young social innovators, sustainability practitioners and entrepreneurs from all six continents with corporations and organizations worldwide to uncover seeds of the future/co-create/develop transformative solutions/enable a sustainable future



Sustainable Innovation Community in sponsoring corporations

Staff in corporations serving as 4Revs Ambassadors become sustainability innovation leaders in your company/organization and are encouraged to set up a cross-functional Sustainable Innovation Community in-house to provide momentum and galvanize the ideas and passion also of other staff members

Organizational Details

4Revs is a project led by NELIS – Next Leaders' Initiative for Sustainability, a non-profit organization established in 2015 in Shiga, Japan.

Name of organization: NELIS –Next Leaders' Initiative for Sustainability

Form of legal registration: “IppanShadanHojin” (Japanese non-profit organization), January 30, 2015
Registered non-profit organization (Nigeria), June 5th, 2018
Registered legal entity (Singapore), November 2018
Registered non-profit organization (Uganda), October 2019

Founders: *Peter David Pedersen* (executive director), resident of Japan
Tatsuo Akimura, head of OmiHachimanChamber of Commerce,
OmiHachiman, Shiga, Japan
Masahito Yamamoto, CEO of the TaneyaGroup, OmiHachiman, Shiga, Japan

Address: 615-1 Kitanosho-machi, Omi-Hachiman-shi, Shiga-ken, Japan

Website: www.nelisglobal.org

E-mail contact: pdp@pdplab.jp (Peter David Pedersen) or your local 4Revs contact person



4 Revs Appendix



We need 4 **Revolutions** to Survive



Data/megatrends

The 4 Survival Challenges towards 2030-2050

FOOD

- World population is projected to grow to around 10 billion people in 2050
- In 2019, the global hunger population stands at more than 820 million people
- 1/3 of all food produced globally is wasted (Top 3 wasters: USA, Japan, UK)
- Commercial fisheries in the entire Asia-Pacific region may become impossible by 2048

WATER

- In 2019, around 2 billion do not have access to running water at home
- 52 percent of global population may face water stress by 2050
- Water supply in large parts of Asia is threatened by rapid melting of Himalayan glaciers, possibly affecting more than 2 billion people later this century

RESOURCES

- By 2050, plastic in the oceans may weigh more than the total weight of fish
- Reforestation efforts are severely threatened by population increases and more affluent lifestyles (requiring more space for meat production and monocultural agriculture)
- Between 1970-2014, a decline of 60% (average) was observed in number of vertebrate animals across ecosystems

ENERGY/ CLIMATE

- Following present trends, the atmosphere may reach 450 ppm CO₂ concentration around 2030 (expected to be a key threshold in limiting runaway global warming)
- By 2050, the world can expect 143 million climate refugees, mainly in Asia, Sub-Saharan Africa, and Latin America. Most will be internally displaced, many will move across borders
- CO₂ emissions from energy are projected to rise by 100% between 2000-2040
- Fossil fuels are expected to make up around 74% of primary energy supply in 2040

Data from UN, WORLD BANK, IEA, WWF, MIT, WEF (Ellen MacArthur Foundation) and other research

