



## **PROGRAMS**

PROJECT RECHARGE

CAREER QUEST

INTRODUCE A GIRL TO ENGINEERING DAY

SUSTAINABILITY EXPEDITION

# **2019 - 2020 ANNUAL REPORT**



*To inspire and empower the next generation of leaders and workers who will drive the growth of a sustainable economy*

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Reno, NV 89503  
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A 501(c)(3) Nonprofit Organization  
EIN: 208274660

**OUR MISSION**

To inspire and empower the next generation of leaders and workers who will drive the growth of a sustainable economy.

**OUR VISION**

To live in a world wherein the social, environmental, and economic spheres of our lives are prosperous and in balance. We envision an educational system that employs a inquiry- based and practical approach that inspires and prepares our youth for this rapidly developing sustainable economy.

**LETTER FROM OUR EXECUTIVE DIRECTORS**

On behalf of the Board of Directors and our amazing staff at Envirolution, it's a privilege to share our accomplishments for this 2019/2020 annual report. What a year! In the last year, Envirolution experienced incredible growth, which brings both a feeling of excitement and responsibility. The 2019/2020 academic year started off to an amazing start with the addition of new staff, a new office, new funding partners, the launch of a brand new program (Career Quest) and continued success and expansion with Project ReCharge. This growth required the decision of the board to restructure Envirolution to bring on Mike Robertson as Co-Executive Director, responsible for Operations and Technology. This shared leadership role allows Vanessa to focus on Programs and Partnerships, utilizing both their skills and passion to the benefit of the organization and those we serve.

Then March came around. Once Covid-19 hit, we were forced to switch gears and adapt our programs in ways we would have never imagined. With the development of our Virtual Project ReCharge Material Kits, we have been able to continue to provide our hands-on STEAM (Science, Technology, Engineering, Art & Mathematics) lessons in a clean and safe way. While we had only ever provided in-person professional development sessions to our teachers in the past, our virtual versions have exceeded our expectations by keeping teachers engaged, trained and more than anything supported. The practice of training virtually has also empowered our teachers with more confidence using these digital platforms and their application in a variety of classroom settings; in class, hybrid or 100% distance learning.

These challenges also provide opportunities, ones that we are embracing with grace and enthusiasm. We are now able to reach teachers and school districts across the state virtually, bridging the gap between rural and suburban partners. We have worked harder than ever throughout this trying time and we have developed a truly powerful team in the process. We are poised to grow Envirolution well beyond Nevada in the near future and are excited for the future minds that we are fortunate enough to inspire. This development and growth can not be accomplished without the continued support of our community, so please reach out for ways to get involved in growing our future sustainability leaders.



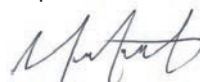
**Vanessa Robertson, M.A.**

Co-Executive Director  
Programs and Partnerships



**Mike Robertson**

Co-Executive Director  
Operations and Technology



## FIVE YEAR STRATEGIC PLAN

- Objective 1:** Provide 500 science/math and STEAM teachers by 2024 with professional development and on-going resources.
- Objective 2:** Engage and educate 100,000 students from diverse backgrounds in articulated STEAM and sustainability concepts by 2024.
- Objective 3:** Increase student knowledge of, and interest in, STEAM and sustainability careers by 25-50% percent every year.
- Objective 4:** Increase awareness and impact of STEAM and sustainability programs by 25% by interacting with community members across 30+ events every year.
- Objective 5:** Show long term support of annual programs by increasing annual funding by 15-20% and diversifying funding sources by 25-50% every year.
- Objective 6:** Expand Project ReCharge to 5 new cities (outside Nevada) by 2024.



## 2019 FINANCIALS

Government: \$408,354  
Foundations: \$57,750  
Individuals/Businesses: \$37,377

### Expenditures:

73% to Programmatic / 24% to Admin/Other



## 123% REVENUE GROWTH

We grew from 3 to 10 employees during 2019, started offering health benefits and hired a PEO company for our human resources management

## OPERATING BUDGET



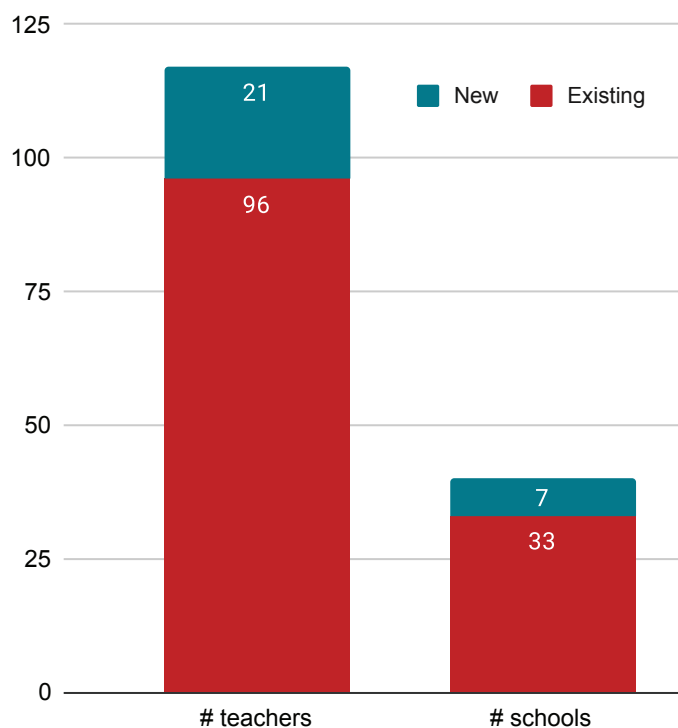


## PROJECT RECHARGE



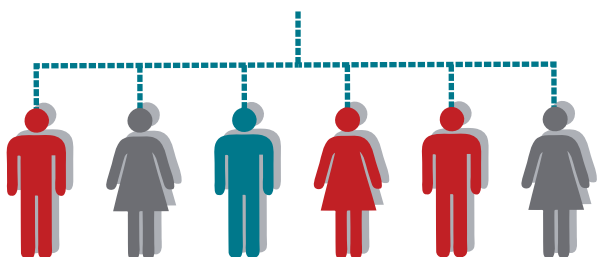
Project ReCharge is a hands-on, project based Science, Technology, Engineering, Art and Mathematics (STEAM) curriculum and training program that engages students, teachers and professionals in the community. This interactive energy education program provides valuable professional development and classroom resources to teachers, who then empower students to become energy detectives focused on saving their home, school and community money through energy efficiency and sustainability proposals. Innovative lessons, energy data and interactive dashboards engage students and teachers as they learn about energy generation, consumption and efficiency.

## PROJECT RECHARGE GROWTH 2019-2020



## STUDENT DEMOGRAPHICS (NV)

# 55%



- 55% are students from underrepresented communities
- 48% are female students

### Represented Nationalities

- 60% Caucasian
- 28% Hispanic
- 4% American Indian / AK Native
- 2% African American
- 5% Pacific Islander
- 1% Asian

## PROJECT RECHARGE TO DATE



# 117 TEACHERS

Teachers from 40 schools & 9 school districts have been provided with over 6900 hours of professional development.



# 25K STUDENTS

Engaged with hands-on interactive STEAM instruction, empowering them to become energy detectives.



# \$642K ENERGY SAVINGS

Based on 5,000+ MWh of energy savings as a direct result of student-driven energy efficiency proposals.

=



# 702

This savings is equivalent to powering 702 American homes for a year.



# 460

This savings is equivalent to removing 460 combustion cars from the road.



# \$173K+

In classroom materials distributed to 40 schools



# 100%

Of 2019/2020 teachers would recommend Project ReCharge

# 73%



### Percentage of Project ReCharge Integration by NV Counties

- 73% of Middle Schools in Washoe County
- 100% of Middle Schools in Carson City
- 40% of Middle Schools & 33% of High Schools in Lyon County

### Typical Project ReCharge-Inspired Careers

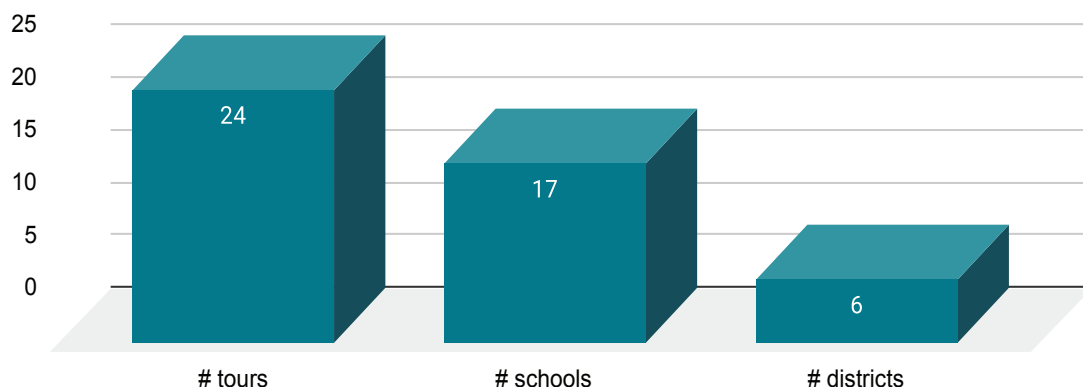
- Mechanical Engineer, Electrical Engineer, Architect, HVAC Technician, Data Scientist, Renewable Energy Technician

## CAREER QUEST



Career Quest connects businesses to their future workforce by exploring workplace STEM and sustainability. During 3-5 hour field trips, students learn about the businesses, interact with staff, engage in facility tours, and participate in exciting, hands-on educational activities developed with the businesses to showcase an aspect of their operations. All logistics are facilitated by Envirolution, significantly reducing impact on schools and businesses.

### CAREER QUEST 2019-2020



# 915

Students participated in Career Quest at Tesla Gigafactory NV



# 45%

Increase in students that participated in Career Quest compared to 2018-2019

**"I loved this field trip!  
The activities were fun and hands-on.  
It was also informative!"**

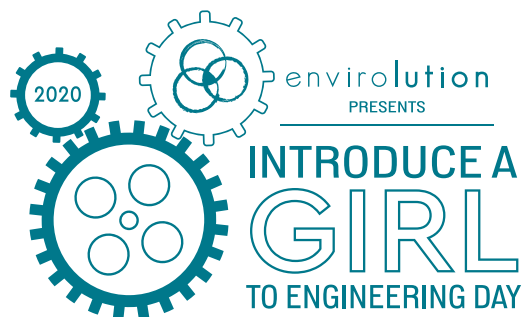
– Hidden Valley Elementary Student



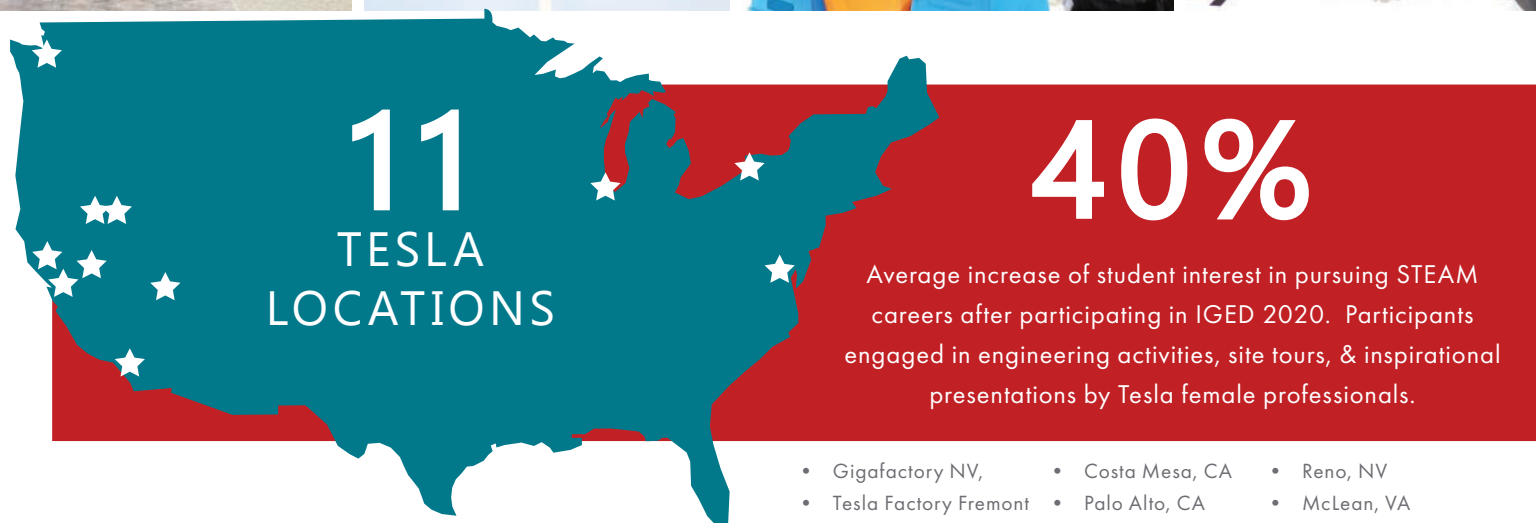
# 96

Over 96 hours volunteered by 13 Tesla employees during Career Quest 2019-2020

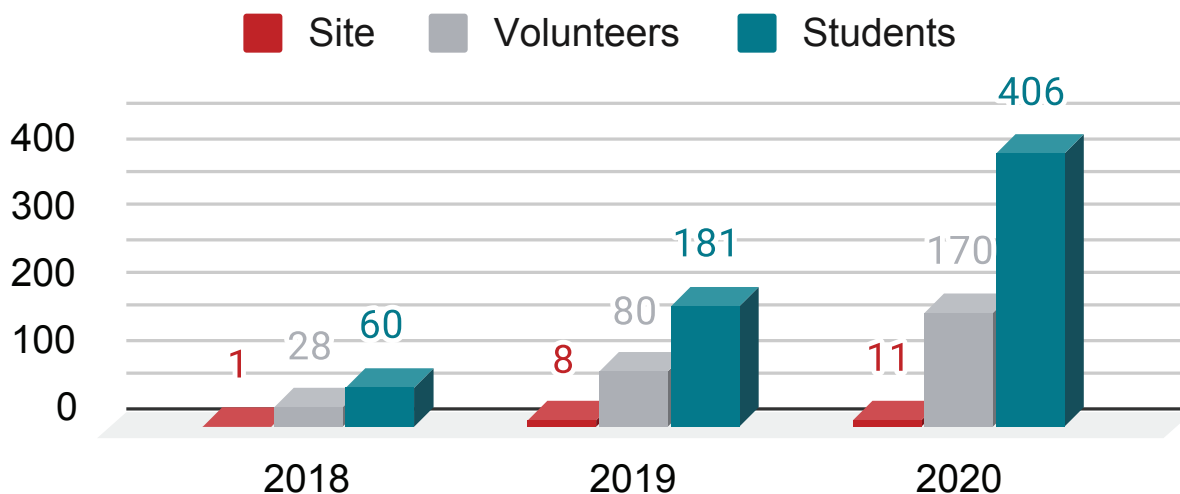
# INTRODUCE A GIRL TO ENGINEERING DAY



This national event is focused on showing young females how engineering can be both a great career choice and a great way to change the world. We began our Introduce a Girl to Engineering Day (IGED) partnership with Tesla in 2018 and hosted 60 girls at Gigafactory NV with student participation increasing by 576% just two years later. With females making up only a fraction of the engineering workforce in the U.S., this event demonstrates the commitment to increasing female students' exposure to manufacturing and engineering.



## IGED EVENT GROWTH





## SUSTAINABILITY EXPEDITION



The Sustainability Expedition is an exciting, five-day opportunity for middle and high school students to travel to local businesses and organizations during school breaks to explore STEAM careers, environmentally friendly practices, and learn about the local sustainability movement. We conclude the week by constructing sustainability 'Vision Boards' and by leading a community cleanup of Pickett Park.



# 81%

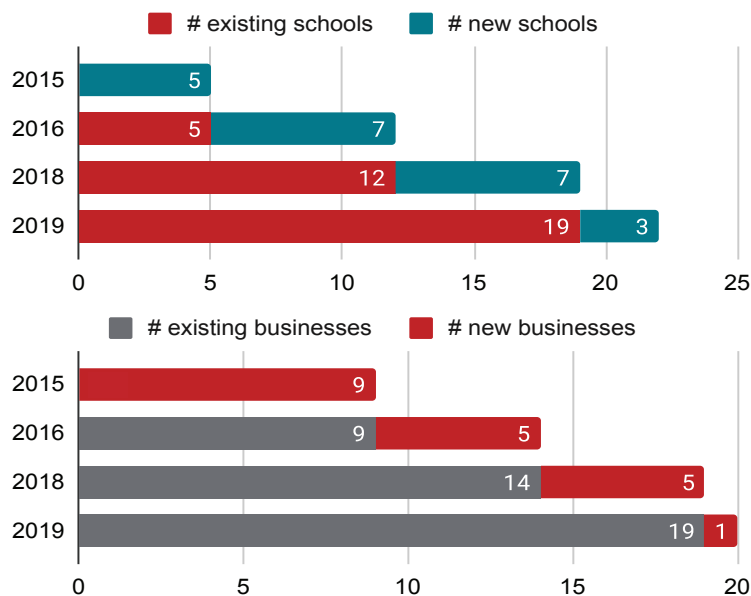
Attendees experienced an 81% post expedition interest in a STEAM career.



# 90

To date, 90 students have participated in Sustainability Expedition

### NEW BUSINESS & SCHOOL PARTNERSHIPS



# 20

20 New business partnerships have been developed as a result of the Sustainability Expedition



COMMUNITY ENGAGEMENT



Michelle Migliori,  
Tesla  
Manager IC &  
PC Operational  
Excellence

Alicia Garcia,  
Tesla  
Senior Production  
Planner, Model 3

Jesse Ghisletta,  
Tesla  
Recruiter



95%

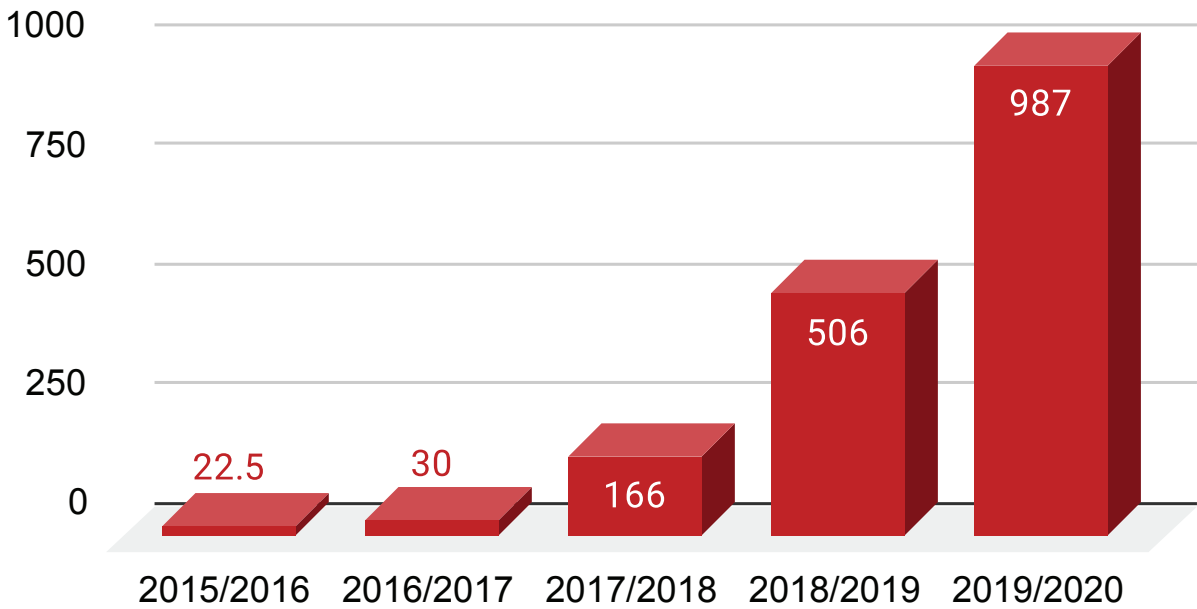
Our community partner volunteer hours  
have increased by 95% in the past year.



5,283

5,283 people have been engaged  
at Envirolution outreach events

VOLUNTEER HOURS FROM COMMUNITY  
PARTNERS ACROSS ALL PROGRAMS



## TESTIMONIALS



*"Without Project ReCharge I would have never had the confidence to pursue a degree in civil engineering!"*

– Jackie Medina, UNR Sophomore  
Civil Engineering



*"The Project ReCharge lessons taught me big picture topics using hands-on activities and made the information really easy to remember".*

– Alex Marsh, UNR Freshman  
Environmental Engineering

*"I can't thank you and Project Recharge enough for the impact you've made on my teaching experience and the learning experience for my students. What an amazing opportunity it has been for us to participate in this program."*

– Project ReCharge Teacher



*"The Sustainability Expedition is one of the most exciting and interesting tours I, and the other students, have ever taken. In just five days, we became friends and had a great time together...together we'll bring changes to the world!"*

– Sustainability Expedition Student

*"Before I thought that engineering was intimidating and hard. I also thought that it was more for males. Now I think that even if you're a girl you can still do it."*

– Costa Mesa Student during IGED





## OUR TEAM

Engaging students and supporting teachers takes a passionate and dedicated team!



**Vanessa Robertson,**  
Co-Executive Director -  
Programs and Partnerships



**Mike Robertson,**  
Co-Executive Director -  
Operations and Technology



**Laura Scarselli**  
Project ReCharge  
Manager



**Aimee Frugoli**  
Programs Manager: Sustainability  
Expedition, Career Quest, IGED, NVGB



**Mel Munn,**  
Office Coordinator and  
Bookkeeper



**Megan Weinhold**  
Curriculum Developer



**Chaja Hogeweg**  
Marketing and Design



**Brittney Gutierrez ,**  
2020/2021 AmeriCorps VISTA  
Development Coord.



**Delanie Bruce,**  
2019/2020 AmeriCorps -  
Education & Outreach Coord.



**Nick Aneese,**  
2020/2021 AmeriCorps -  
Education & Outreach Coord.

## BOARD OF DIRECTORS

**Todd Markey,** Interim Board Chair / Program Oversight -  
AP Environmental Science Teacher, North Valleys HS

**Sylvia Scoggin,** Secretary / Program Assessment Oversight -  
WCSD 6-12 Science Program Coordinator

**Mara Langer,** Governance / Community Fundraising -  
Community Relations Professional

**Casey Coffman,** Grant Funding -  
President, River Front Consulting, LLC.

**Vicki Bischoff,** Director -  
Vice president, Suncrest Builders

**Alex Gamboa,** Director - Co-Founder and former Executive  
Director of Envirolution

**Rhonda Chavez,** Board Appointed Treasurer -  
RHC Enterprises

## MASTER TEACHERS

**Leigh Metcalfe** - Reed High school

**Leanne Weinhold** - Retired from Depauli Middle School

**Dustin Coli** - Wooster High school

**Kristina Hadley**- Swope Middle School

**Terin Kirk-Arnold** - Reed High School

**Todd Markey** - North Valley High School

**Natalie Wierzbicki** - Incline Middle School

**Michelle Hollis** - Carson Middle School

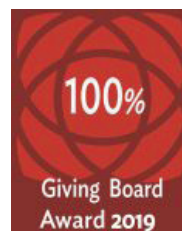
**Tammy Borremans** - Dayton Elementary School

**Mickey Smith** - Wooster High School

**Randie Orong** - Churchill County Middle School

**Jason Adams** - Loyalton High School

**Cali Holman** - Heritage Homeschool





# UPCOMING PLANS (FOR 2020 / 2021)

- **New Program : Project EDGE (The Empowerment and Development of Girls in Engineering)**
  - Develop a formalized plan to pilot the 3-day Project ReCharge extension workshop where two, all female teams of middle school students work with local STEAM professionals to build Energy Bikes from start to finish
- **Staff and Board Growth**
  - Add the Development Coordinator as a full time staff position
  - Grow and diversify our Board of Directors along with the Board of Advisors
- **Continue Growth of Project ReCharge**
  - Create an easily replicable virtual version of our flagship program so that we can reach rural communities including Elko and Nye, creating a smoother path toward expansion outside of Nevada



## MEDIA PRESENCE

10/30/19 "STEM Students See the Light" - Churchill County Middle School lighting retrofit.



10/30/19 Channel 2 News KTVN: Segment on PROJECT RECHARGE Winter PD 2019



10/17/19 Carson City students to explore career options, tour Tesla in STEM and sustainability program



2/21/19 Tesla hosts hundreds of students for 'Introduce a Girl to Engineering Day' at 8 facilities



## PARTNERS



## SCHOOL DISTRICTS



Facebook: @Envirolution  
Twitter: @EnvirolutionORG  
Instagram: @envirolution

[www.envirolution.org](http://www.envirolution.org)