# Minnesota Technical Assistance Program (MnTAP) Intern Program

## Solutions that benefit businesses, communities and our future workforce

**Toxics Release Inventory (TRI) Virtual Conference – September 21st, 2022**

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UNIVERSITY OF MINNESOTA
Driven to Discover℠

MnTAP

# Introduction

- MnTAP background
- Intern program overview
- Benefits beyond the numbers

# Minnesota Technical Assistance Program

**Based at University of Minnesota**

Helping Minnesota (MN) businesses find **cost-effective solutions that reduce waste, conserve water, save energy, and prevent pollution.**

**Confidential, non-regulatory, and no-cost**

MINNESOTA POLLUTION CONTROL AGENCY

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# Industry examples

Brewing & Distilling

Dry Cleaning

Ethanol Production

Fiber Reinforced Plastics

Food Processing

Healthcare

Iron Mining

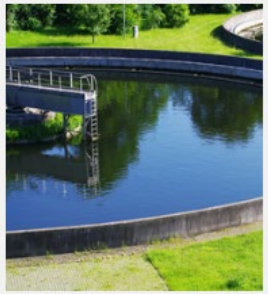
Machining & Metal Fabrication

Metal Casting

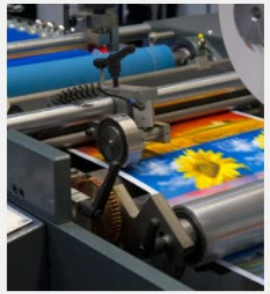
Metal Finishing

Painting & Wood Finishing

Pulp & Paper Mills



POTWs



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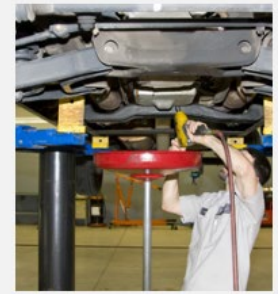


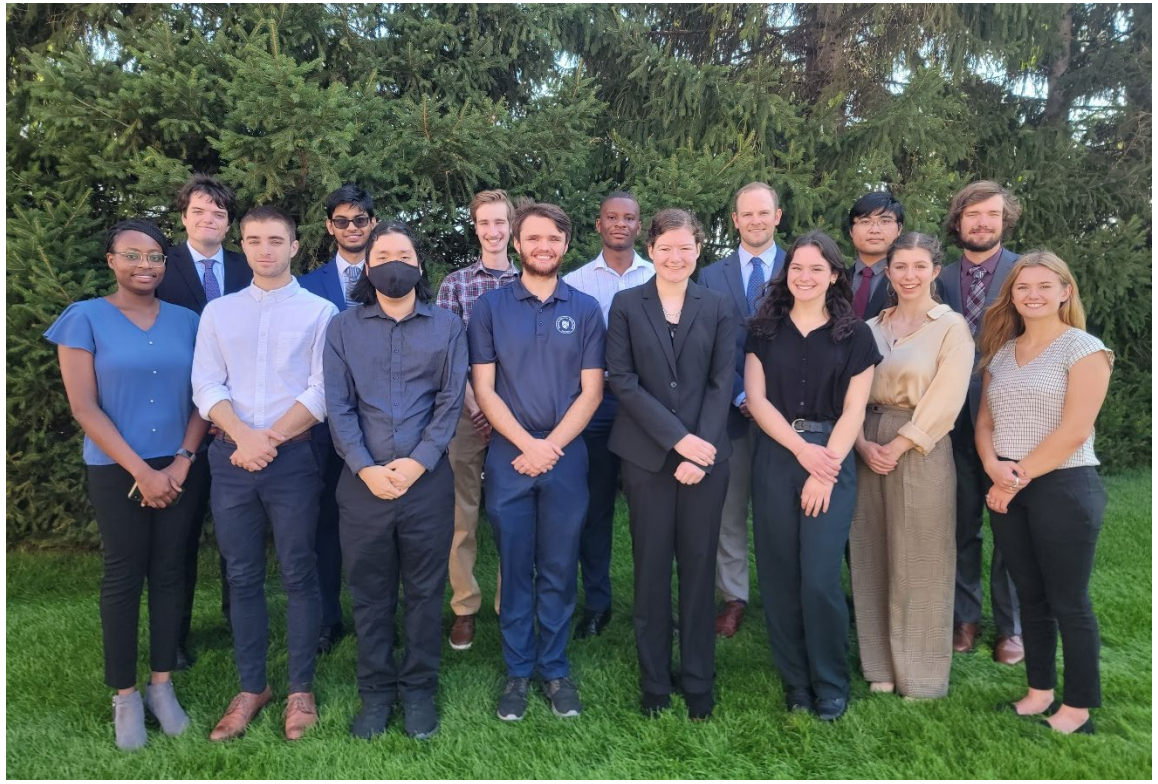
Vehicle Maintenance

# MnTAP Services

- **Technical Assistance**
  - Site assessments
  - Intern program
  - Phone & email requests
  - Demonstrations/research
- **MN Materials Exchange**
- **Outreach and Training**

# MnTAP Summer Intern Program

- 15-20 Intern Projects
  - Pollution prevention
  - Process efficiency/lean manufacturing
  - Waste prevention
  - Water & Energy Conservation
- Full-time, 500 hours (13 weeks)
- Intern = project lead
- MnTAP advisor – follow-up with company for minimum of 2 years



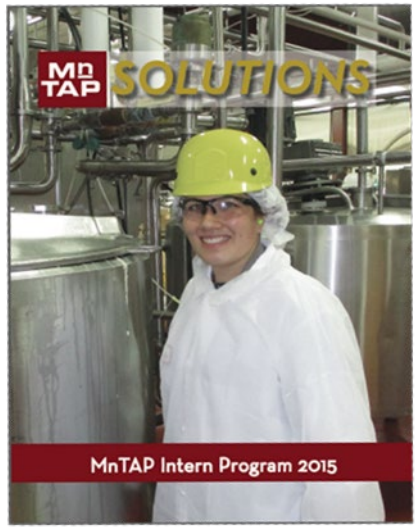
*The 2022 MnTAP Intern Cohort*

# Interns take the lead

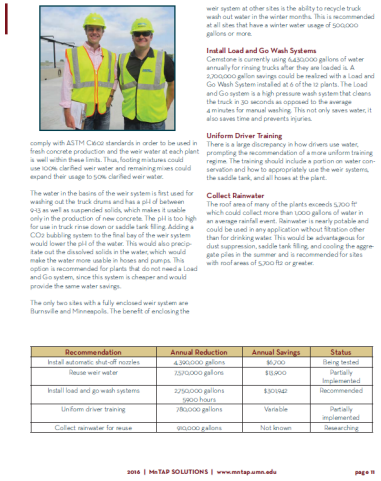
- Work on-site at the company
- Learn the processes
- Consult with operators
- Reach out to vendors
- Research solutions
- Make recommendations

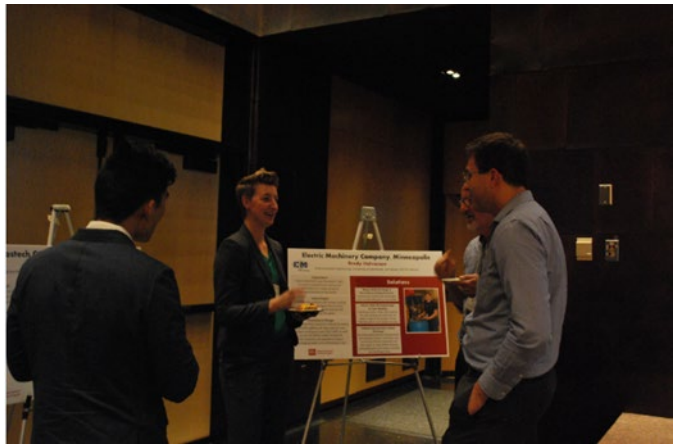
# Showcasing results

- **Annual Symposium event**
- **Project executive summaries published in MnTAP *Solutions***



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# Intern Project Example

RUST-OLEUM

*Brooklyn Park, MN*

**Key goals:**

- Reduce Methyl Ethyl Ketone (MEK) use
- Increase overall process efficiency

**Approach:**

- Research and test substitutions
- Explore process improvement opportunities

# Intern Project Example

RUST-OLEUM

**Key solutions:**

- Dual-solvent approach: substitute MEK with Tetraoxaundecane (TOU) and Dibasic Ester (DBE)
- Reusable sprayers, standard operating procedure (SOP) improvements

**Results:**

- 98,000 lbs hazardous waste and 13,000 lbs solvent reduced
- 5,000 lbs of product saved
- $85,000

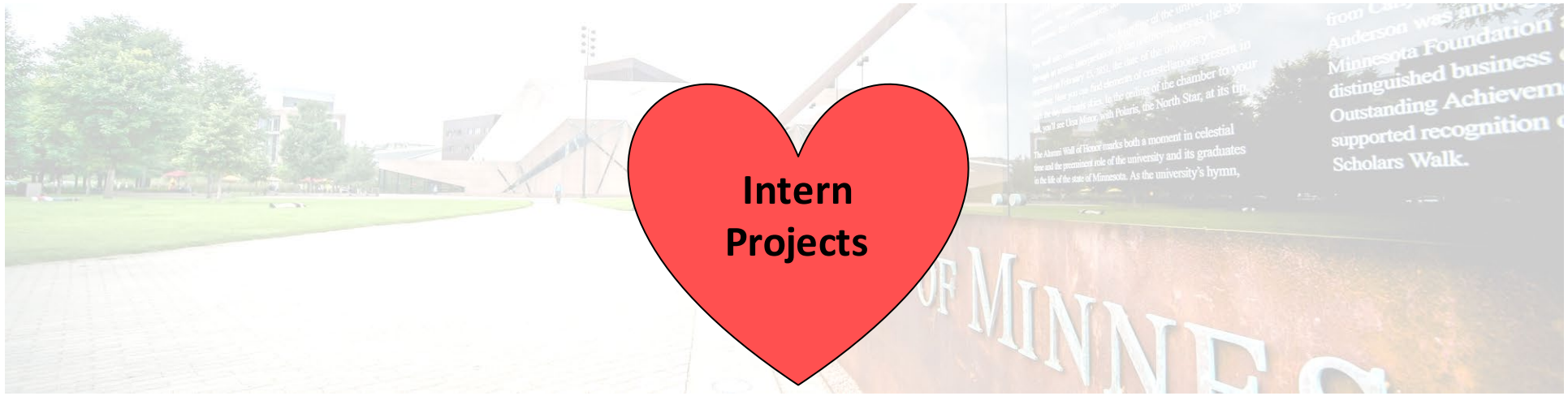
# 2021 Results

**2022 publication – *coming soon!***

**Scan Quick Response (QR) code to the right to see all past issues of MnTAP Solutions**

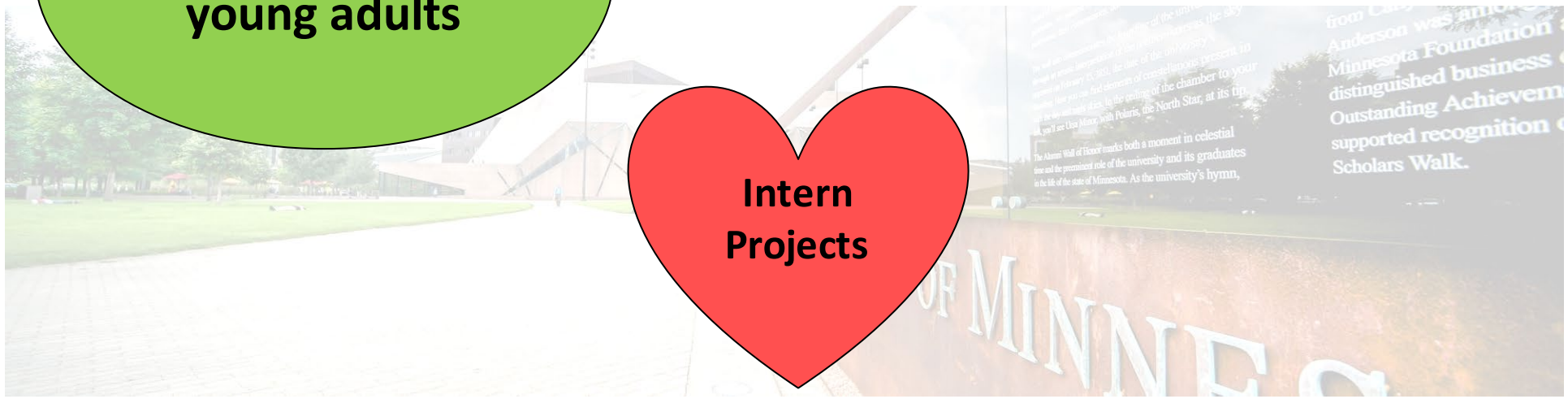

| Recommendation | Reduction | Cost Savings | Equivalents (annual) |
|---|---|---|---|
| Water Conservation | 24,000,000 gallons | $74,000 | Water for more than 1,000 Minnesota residents |
| Waste | 630,000 lbs | $410,000 | Annual waste from 300 Minnesota residents |
| Chemicals | 190,000 lbs | $60,000 | Nearly 400 55 gallon drums |
| Electricity | 4,000,000 kWh | $430,000 | Electricity for 2,800+ Minnesota homes |
| Gas | 200,000 therms | $90,000 | $CO_2$ emissions from 220 passenger vehicles |
| Production Impacts | --- | $14,000 | --- |
| Total Potential Cost Savings | --- | $1,078,000 | --- |

# Benefits beyond the numbers…



# Benefits beyond the numbers…

**Empowering opportunities for young adults**



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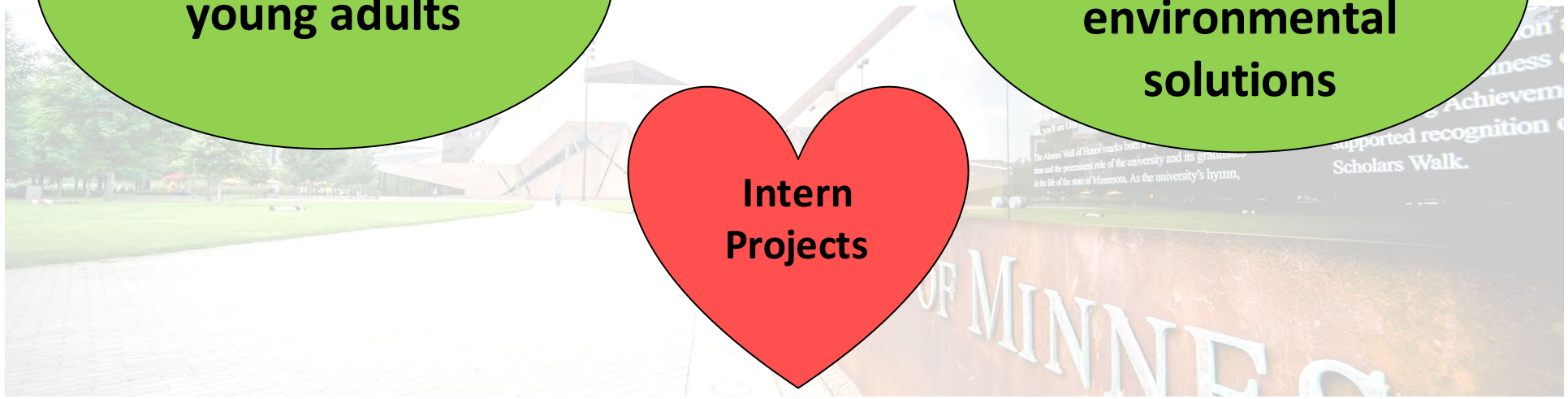
**Companies gain confidence in environmental solutions**




**Intern Projects**

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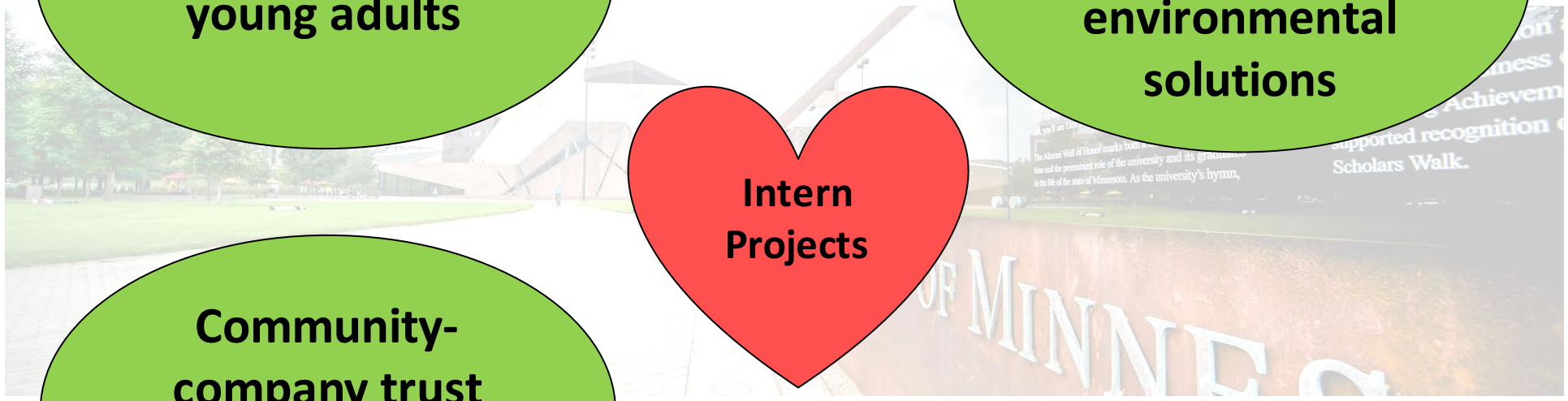

Empowering opportunities for young adults

Companies gain confidence in environmental solutions

Intern Projects

Community-company trust and collaboration

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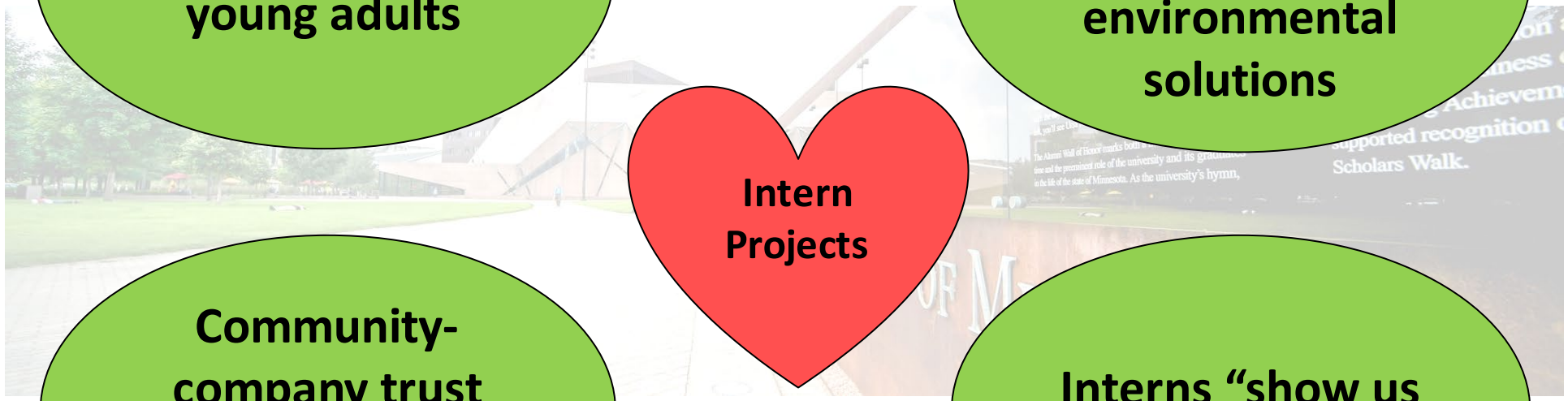

Empowering opportunities for young adults

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Intern Projects

Community-company trust and collaboration

Interns “show us the way!”

# Thank You!


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