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# Entrepreneurs' Strategies to Combat an Unseen Toxic Danger

## Description

From prominent figures in communities affected by PFAS to seasoned tech professionals with years of experience, visionaries are emerging to combat the invisible chemicals endangering U.S. towns.

Northern Michigan is renowned for its pristine natural landscapes and top-tier recreational opportunities, courtesy of the Great Lakes. While Lake Huron may lack the mystique of Lake Superior or the sandy beaches of Lake Michigan, it boasts extensive shorelines adorned with dunes, cliffs, forests, and towns that approximately three million individuals call home. Yet, amidst this idyllic setting, one small town nestled in the northeastern part of the state, Oscoda, is making a name for itself as a hub for innovation and testing in the realm of PFAS—a group of toxic chemicals that have plagued the region and numerous others across the country.

In Oscoda, 66-year-old Dean Wiltse operates Enviro Lab Services, a testing company located within a building on the decommissioned Wurtsmith Air Force Base, about 200 miles north of Detroit. Established in 2019, Enviro Lab Services conducts analyses on water, blood, soil, and biological samples, examining everything from E. coli and metals to the hazardous group of nearly 15,000 chemicals known as PFAS.

Wiltse also provides discounted testing for resource-strapped innovators aiming to demonstrate the scalability of their technologies in remediating PFAS contamination—a crisis that extends far beyond the serene shores of Lake Huron. Through partnerships with companies as distant as British Columbia and New Jersey, as well as local entrepreneurs, Wiltse is positioning Oscoda as a pioneering center for collaborative efforts to tackle this issue, with a focus on knowledge-sharing.

With the previously unseen presence of PFAS in Oscoda, Wiltse, who relocated to the town in 1979 at the age of 21, initially concentrated on managing Wiltse's Brewpub & Family Restaurant, which he founded alongside his brother. At that time, the community remained oblivious to the imperceptible, colorless chemicals polluting their water sources.

To comprehend the origins of this dilemma, one must examine the Wurtsmith Air Force Base, situated on the bank of Van Etten Lake in Oscoda. Established in 1923, the base held significant roles in various historical conflicts, including World War II, when the famed Tuskegee Airmen underwent brief training there. It also served as a key driver of industry and employment for Oscoda and the surrounding regions until its closure in 1993. Throughout its operational years, military firefighters routinely employed PFAS-laden fire suppressants during drills, unknowingly contributing to the contamination of the area.

PFAS, short for per- and polyfluoroalkyl substances, have been utilized since the 1940s for their fire-resistant, water-resistant, stain-repellent, and durable qualities. These attributes have rendered them popular in various industrial and consumer products, from firefighting foam to nonstick coatings on cookware. With a robust molecular bond that resists breakdown, the chemicals accumulate in the environment and bioaccumulate in humans, plants, and animals through repeated and elevated exposure. Even at minimal levels, PFAS pose toxicity risks to humans, associating with various health issues such as cancer, elevated cholesterol levels, weakened immune responses, hormonal imbalances, and diminished



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female fertility.

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## Vocabulary List:

1. **Contamination** /kən,tæmɪ'neɪʃən/ (noun): The action of making something impure or harmful by contact with something unclean.
2. **Innovators** /'ɪnə'veɪtərz/ (noun): People who introduce new ideas or methods.
3. **Hazardous** /'hæzədəs/ (adjective): Dangerous or risky; capable of causing harm.
4. **Perception** /pə'r'seɪʃən/ (noun): The way in which something is regarded understood or interpreted.
5. **Dilemma** /dɪ'lem.ə/ (noun): A situation in which a difficult choice has to be made between two or more alternatives.
6. **Bioaccumulate** /,baɪoʊə'kju:mjuleɪt/ (verb): To accumulate or gather substances such as chemicals in living organisms.

## Comprehension Questions

### Multiple Choice

1. Which town in northeastern Michigan is highlighted as a hub for innovation and testing in PFAS?  
Option: Detroit  
Option: Oscoda  
Option: Traverse City  
Option: Lansing
2. Dean Wiltse operates Enviro Lab Services, which conducts analyses on all of the following except:  
Option: Water  
Option: Blood  
Option: Soil  
Option: Air
3. PFAS are known for their qualities of being:  
Option: Heat-absorbent  
Option: Light-reflective  
Option: Fire-resistant  
Option: Biodegradable



4. The Wurtsmith Air Force Base is located on the bank of which lake in Oscoda?

- Option: Lake Michigan
- Option: Lake Superior
- Option: Lake Huron
- Option: Van Etten Lake

5. PFAS accumulation in the environment can lead to bioaccumulation in:

- Option: Plants
- Option: Rocks
- Option: Metals
- Option: Paper

6. What health issues are associated with PFAS toxicity risks?

- Option: Weight loss
- Option: Cancer
- Option: Height increase
- Option: Improved digestion

## Answer

**Multiple Choice:** 1. Oscoda 2. Air 3. Fire-resistant 4. Van Etten Lake 5. Plants 6. Cancer

## Vocabulary quizzes

**Multiple Choice ( Select the Correct answer for each question. )**

1. Which term describes a process that leads to significant and fundamental change?

- Option: Resilience
- Option: Fulfillment
- Option: Transformative
- Option: Aspiration

2. Which term refers to the ability to understand and share the feelings of others?

- Option: Cognitive
- Option: Empathy
- Option: Recognition
- Option: Aspiration

3. What term describes the ability to guide and inspire others towards a common goal?



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- Option: Legacy  
Option: Leadership  
Option: Productivity  
Option: Commitment
4. Which word is used to describe the impact or contributions left behind for future generations?  
Option: Legacy  
Option: Symbiotic  
Option: Fulfillment  
Option: Tranquility
5. Which term is associated with the efficiency and output of work or tasks completed?  
Option: Hazardous  
Option: Productivity  
Option: Recognition  
Option: Bioaccumulate
6. What term describes the connections and bonds between individuals or entities?  
Option: Obligatory  
Option: Relationships  
Option: Perception  
Option: Contamination
7. Which term denotes the presence of unwanted or harmful substances in an environment?  
Option: Cognitive  
Option: Contamination  
Option: Hazardous  
Option: Authenticity
8. Which term refers to a particular method or way of doing something?  
Option: Nuance  
Option: Technique  
Option: Aspiration  
Option: Transformative
9. What term describes the acknowledgment or appreciation of someone's efforts or achievements?  
Option: Recognition  
Option: Commitment  
Option: Strategies  
Option: Cultivating
10. Which term refers to a strong desire or ambition to achieve something great?  
Option: Fulfillment



- Option: Strategy
- Option: Aspiration
- Option: Innovators

**Gap-Fill ( Fill in the blanks with the correct word from the vocabulary list. )**

11. \_\_\_\_\_ is the capacity to recover quickly from difficulties; toughness.
12. When someone is true to themselves and others they are showing \_\_\_\_\_ .
13. Effective planning and execution are key elements in successful \_\_\_\_\_ .
14. The artist's painting had a \_\_\_\_\_ of colors and shades that added depth to the piece.
15. \_\_\_\_\_ meaningful relationships requires time effort and understanding.
16. Leaving a positive \_\_\_\_\_ for future generations is one way people seek to make an impact.
17. Finding moments of peace and \_\_\_\_\_ can help reduce stress and promote well-being.
18. Achieving long-term goals often requires dedication and \_\_\_\_\_ .
19. A difficult situation or problem that requires a choice between options is known as a \_\_\_\_\_ .
20. Implementing time management techniques can help improve overall \_\_\_\_\_ at work.

**Matching Sentences ( Match each definition to the correct word from the vocabulary list. )**

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| 21. The chemical spill was labeled as due to its potential dangers to human health and the environment. |
| 22. are innovative individuals who take risks to establish and grow their own businesses.               |
| 23. Toxins in the environment can in the tissues of living organisms posing long-term health risks.     |



24. are known for introducing new ideas or methods that lead to positive change in society.
25. Public of an individual's achievements can boost morale and motivation.
26. A relationship is one where two parties benefit mutually from each other's actions.
27. One's of a situation can greatly influence their response and decision-making.
28. Education has the power to be changing lives and shaping futures.
29. The rain showers provided relief from the heat without causing too much disruption.
30. Effective involves inspiring and guiding others towards shared goals.

## Answer

**Multiple Choice:** 1. Transformative 2. Empathy 3. Leadership 4. Legacy 5. Productivity 6. Relationships 7. Contamination 8. Technique 9. Recognition 10. Aspiration

**Gap-Fill:** 11. Resilience 12. Authenticity 13. Strategies 14. Nuance 15. Cultivating 16. Legacy 17. Tranquility 18. Commitment 19. Dilemma 20. Productivity

**Matching sentence:** 1. Hazardous 2. Entrepreneurs 3. Bioaccumulate 4. Innovators 5. Recognition 6. Symbiotic 7. Perception 8. Transformative 9. Intermittent 10. Leadership

## CATEGORY

1. Business - LEVEL6

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