



# Becoming a GameChanger through Open Innovation

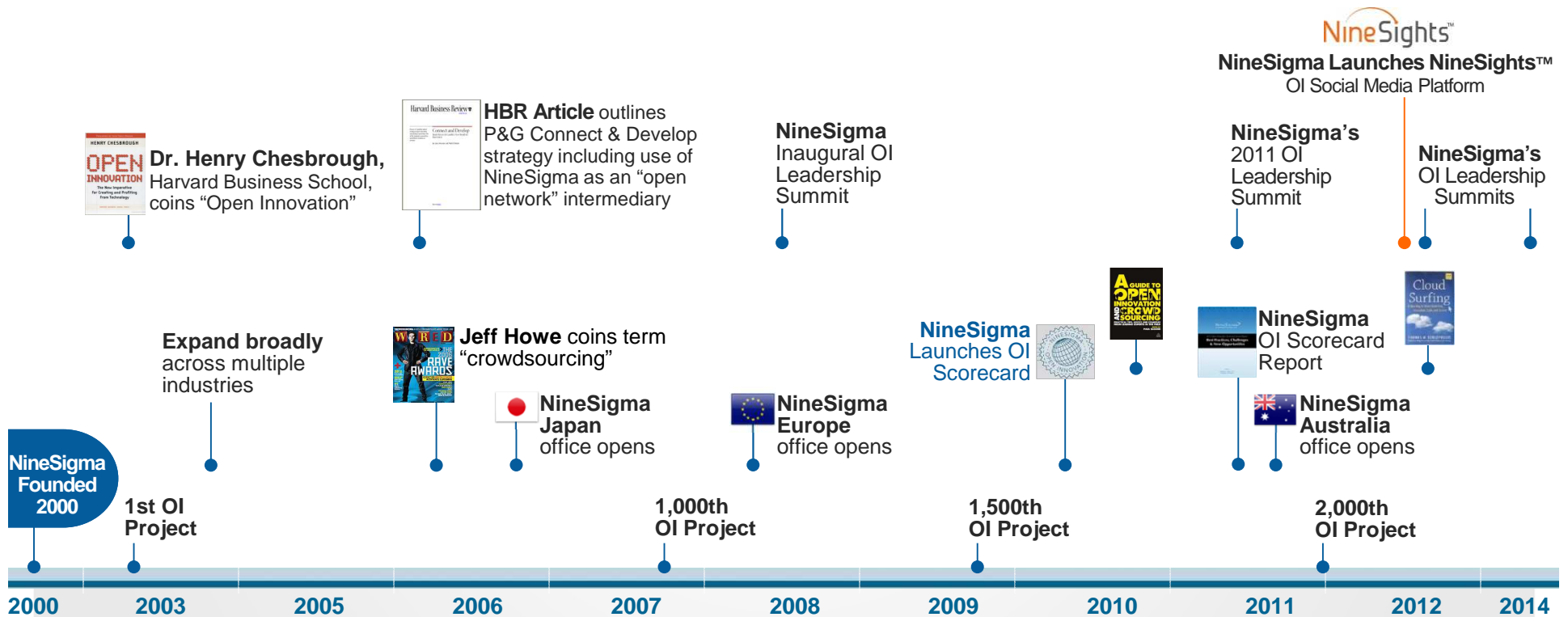
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NINESIGMA<sup>®</sup>

# OPEN INNOVATION HISTORY=NINESIGMA'S HISTORY



# NINESIGMA OVERVIEW



**OFFICES** IN USA, EUROPE, JAPAN, AUSTRALIA, KOREA AND CANADA



**37,000 + PROPOSALS** RECEIVED FROM 116 COUNTRIES



**2,500 + OPEN INNOVATION** PROJECTS COMPLETED



**DIVERSE CLIENTS** MULTINATIONALS, MIDDLE MARKET, SMALL LABS,, GOVERNMENT, ETC.



**2 MILLION + SOLUTION** PROVIDERS CONTACTED



**PROGRAM MANAGER**  
**EXPERIENCE:** 28 YEARS  
AVERAGE INDUSTRY  
EXPERTISE, 150 PROJECTS  
MANAGED

OUR MISSION IS TO BE

**THE BEST IN THE WORLD AT OPEN INNOVATION TO SOLVE YOUR NEEDS.**

# NEW SOLUTIONS AND IDEAS COME FROM INTERNAL AND EXTERNAL NETWORKS



# CASE STUDY: GRAND CHALLENGE

## PROTEIN STABILIZATION FOR AN EFFECTIVE AIDS VACCINE



### OVERVIEW & CHALLENGES

- 7,400 individuals worldwide are newly infected with HIV **daily**
- IAVI has 10+ years experience in AIDS vaccine development
- **CHALLENGE:** Naturally occurring antibodies “disarm” the HIV by neutralizing proteins on the surface of the virus, but **the protein can’t be targeted because it is too unstable.**
- IAVI previously searched for vaccine specialists without success

### WHAT OPEN INNOVATION DELIVERS

- NineSigma **re-positioned** the problem as a protein “stabilization” issue
- Received 30+ proposals from global **protein** researchers
- Identified three scientists who received a total of \$875K
- Solutions generated stable protein complexes for use in AIDS vaccines
- IAVI secured additional funding from the Gates Foundation

*“NineSigma provided a number of promising new approaches to protein stabilization that we had not previously explored. We are confident that the researchers they helped identify have much to contribute to the development of an effective AIDS vaccine.”*

— WAYNE KOFF  
CHIEF SCIENTIFIC OFFICER, IAVI



# CASE STUDY: GRAND CHALLENGE

## SUSTAINABLE PACKAGING FOR MICRONUTRIENT POWDERS



*“We, and our partners, were delighted to join forces with NineSigma to issue this challenge to their worldwide network of solvers.”*

— SHAIFALI PURI  
EXECUTIVE DIRECTOR, SCIENTISTS WITHOUT BORDERS

### OVERVIEW & CHALLENGES

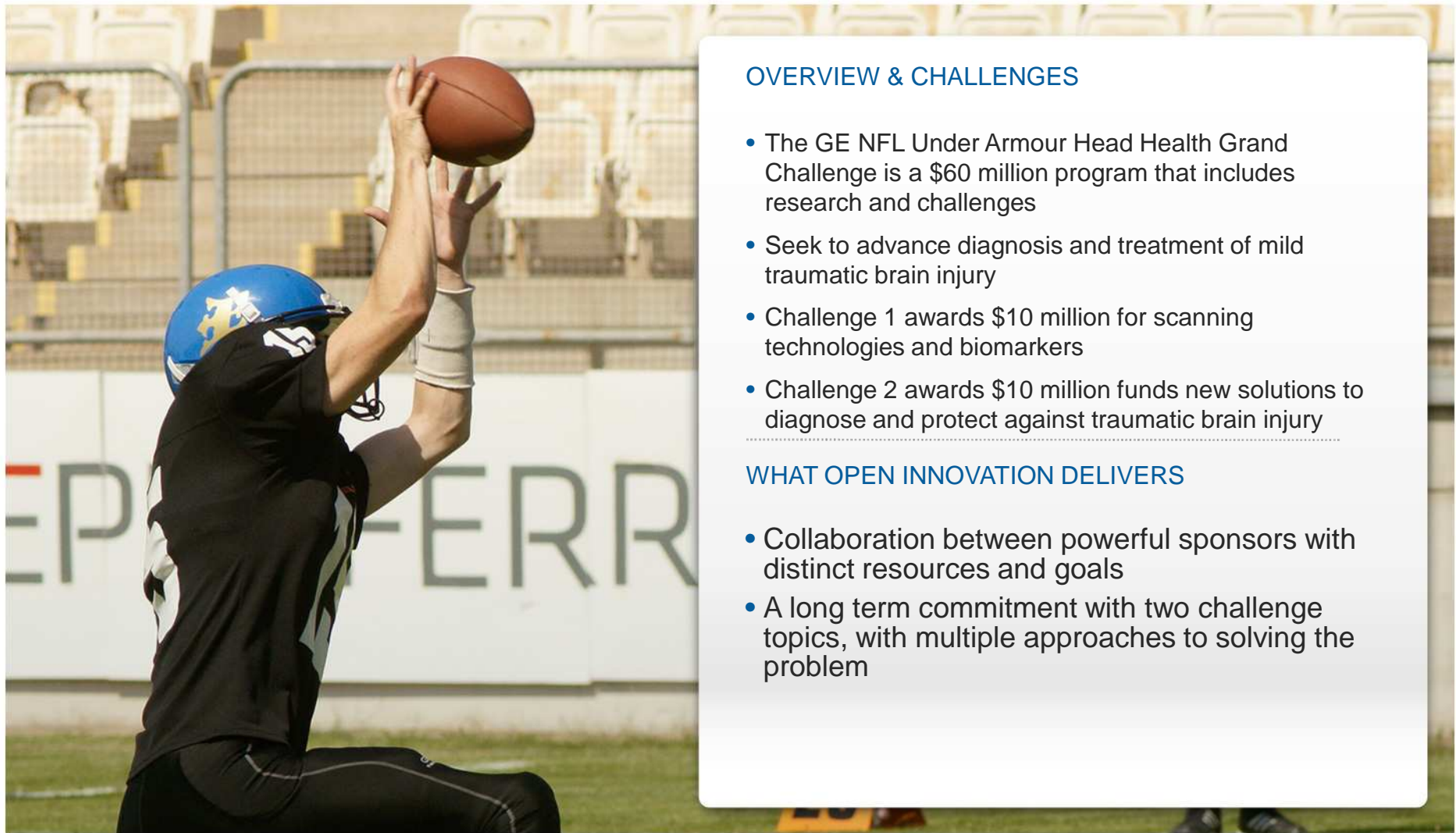
- Scientists Without Borders, Sackler Institute at the New York Academy of Sciences, and Sight and Life were seeking sustainable delivery micronutrient powders (MNPs).
- Current MNP packaging cannot be recycled, repurposed, burned, or composted creating large amounts of waste.

### WHAT OPEN INNOVATION DELIVERS

- Received 35+ proposals from 15 countries
- One-third of solvers were from developing countries
- Selected three winners with solutions involving: double-sack packaging, repurposing condiment packaging, and the use of Chitosan setting solution.

# CASE STUDY: GRAND CHALLENGE

## HEAD HEALTH CHALLENGE



### OVERVIEW & CHALLENGES

- The GE NFL Under Armour Head Health Grand Challenge is a \$60 million program that includes research and challenges
- Seek to advance diagnosis and treatment of mild traumatic brain injury
- Challenge 1 awards \$10 million for scanning technologies and biomarkers
- Challenge 2 awards \$10 million funds new solutions to diagnose and protect against traumatic brain injury

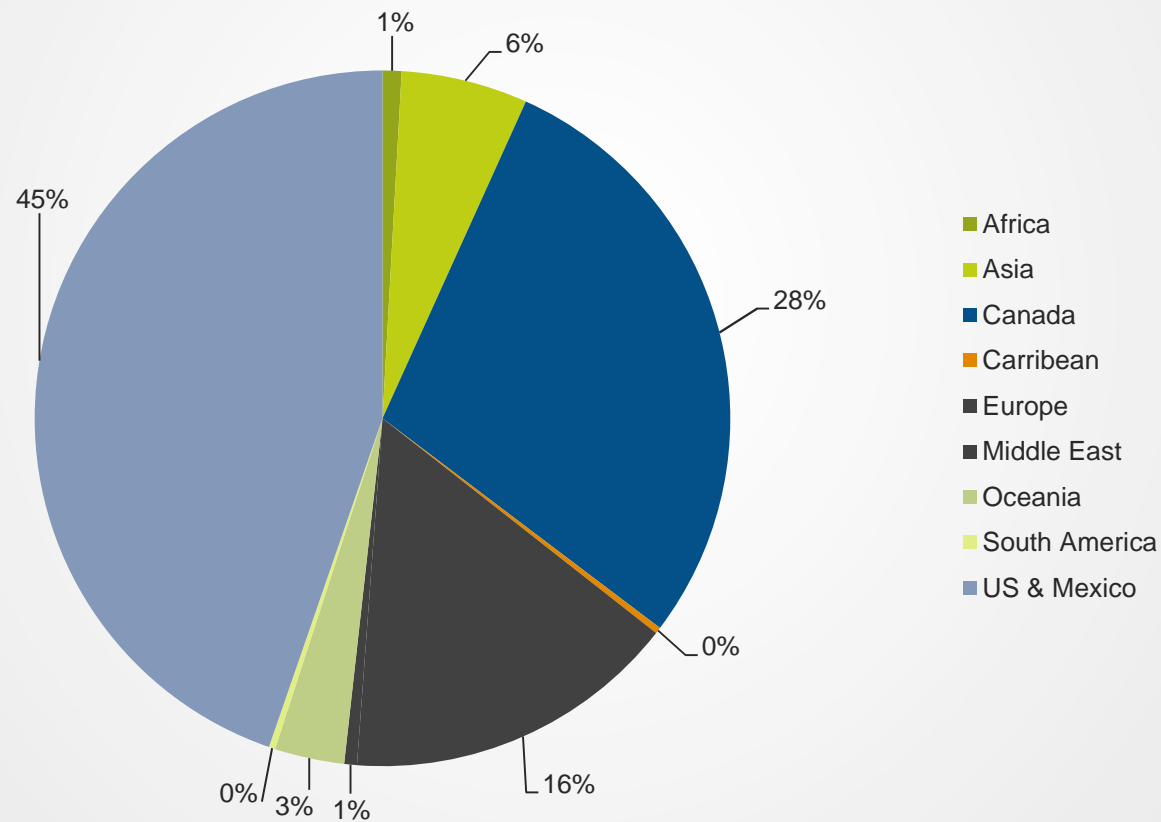
### WHAT OPEN INNOVATION DELIVERS

- Collaboration between powerful sponsors with distinct resources and goals
- A long term commitment with two challenge topics, with multiple approaches to solving the problem

# OPEN INNOVATION IS GLOBAL

## CCEMC CARBON CHALLENGE GLOBAL SUBMISSIONS

### Submission by Region





# ENERGIZING YOUR ECOSYSTEM

## *HOW CAN YOU LEVERAGE ALBERTA'S ECOSYSTEM*

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**How can leadership harness the power of global and open innovation**

**What technologies can you advance technology to solve problems**

**What is Alberta's innovation ecosystem and how can you be a force for change**