

# Youth & Educators: Moving Minds Now and Into The Future



# Moving Minds

- Smart Moves - A Current Example of Mobilizing the Public on the Topic of Transportation Safety and New Mobility Issues
- Lessons Learned, Best Practices and Create Demand To Mobilize The Youth to Transform Community Thinking on New Mobility Issues

# FIRST Mission

## **Vision**

*“To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology heroes.”*

Dean Kamen, Founder

## **Mission**

To inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

# How FLL Works

## **FIRST® LEGO® League: How It Works**

### Problem Solving and Creativity

- Present kids with a real-world problem
- Unleash thinking, energy, and fun
- 2008 Challenge: “Climate Connections”
- 2009 Challenge: “Smart Move”

### Teams of Kids and Mentors

- Work as a team
- Learn with adults and mentors

### Do It All In 8 Weeks

- A timeline to learn efficiency and effectiveness
- Compete with peers in tournament



# SMART MOVE Challenge



Robot Challenge - Transportation Safety  
Research Project - Multimodal Accessible System to  
Move Goods and People

## The Project

- [Download printer-friendly version of the Project](#)
- [2009 Topic Guide](#)
- [Visit the Project Q&A](#)

## Think About It

Each and every day, transportation touches your lives. Your team travels to the places where they learn, to the places where they play, to visit friends and family. Things we want, clothes we wear, the food we eat, the water we drink, medicines we need—all these travel over highways, on paths and trails, along railroad tracks, up and down rivers, across oceans, over mountains and deserts, along the streets we live on. Information travels to us from experts, teachers, friends, and family. It comes to us by word-of-mouth, over the phone, in books, from websites, in text messages.



Now, consider. A potato chip can travel through a factory—flying from machine-to-machine without being broken—but more than 50,000 kids who traveled on skateboards had to be taken to the hospital. Is all this travel as safe as it could be? Millions of people (and the things they need) get stuck in transit every day. Is all this travel as efficient as it could be?

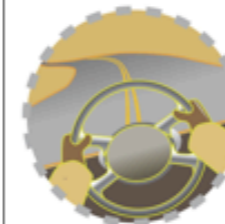
Your challenge this season is to look at your community and discover how people, animals, information, and things travel. Once you know how people and things move in your community, pick one main mode of transportation and do some research. What kinds of problems keep people and things from getting where they are going safely? What kind of problems keep people and things from moving efficiently, getting where they are going quickly and using the least amount of energy? How could your team help solve one of those problems?



## Identify a Problem

Begin your project by describing your community. This season, it is up to your team to define your community. Is it your school? your neighborhood? your city, village, or town? your country? the world? Be prepared to share how you defined your community.

Next, create a list of the ways that people, animals, information, and things move in, around, to, and through your community. Be creative. Be silly. Be serious. Think about *everything* that gets moved, including yourselves!



Once your list is complete, pick one way that people and things move in your community and learn more about it!

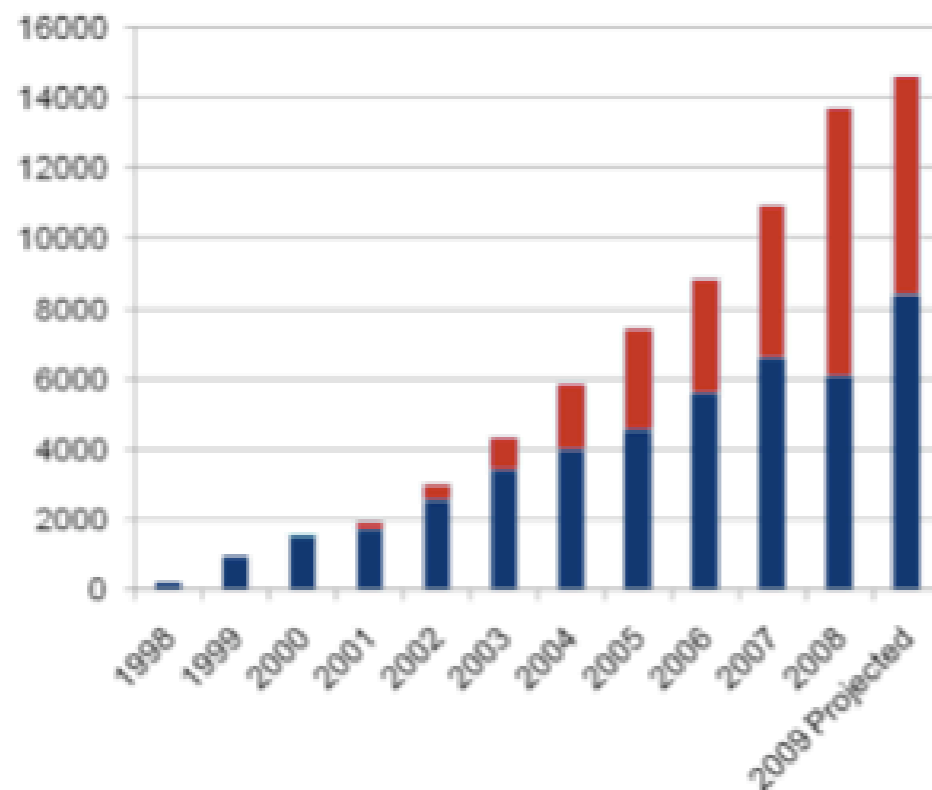
Whether your team chooses planes, boats, trains, cars, trucks, skateboards, rollerblades, bicycles, donkeys, llamas, camels, your feet...it's time to research. What makes your mode of transportation dangerous? What prevents people, information, animals, and things from getting where they need to go? What makes them take longer? What makes them burn more fuel? Search out the problems. Look at reports. Read books. Browse websites. Conduct a survey. Check with experts who work in and around your community. Use any research tools you have available. Be prepared to share your information sources.

## Create an Innovative Solution

Choose one of the problems and suggest a solution. What can be done to fix the problem? What will it take to make your team's solution happen? How will your solution help your

# FLL Impact

FIRST LEGO League Team Growth



## FIRST® LEGO® League (FLL®):

### 2009 Season

- 14,600 teams (projected)
- 146,000 middle-school-age students
- 50+ countries
- 450+ qualifying events
- 85+ Championship tournaments



- Outside US and Canada
- US and Canada



# Ideas Into Reality



**Sony Europe supports children's innovation to help stamp out forest fires and stop climate change**

# Equation To Moving Minds

Mobilized Community =



# Key To Moving Minds

## Inspired Youth

- This group are undervalued and underestimated for understanding issues affecting them and their community.
- Innovation is not limited to just adults. Children have not learn to edit their thoughts yet. Harness this power. Create strategic alliances with in-school and after-school venues.
- Mentors - Caring adults that share their wisdom and experience
- Engage and empower youth as change agents. They are persuasive and do influence the thinking of parents, education, corporations, and government.
- Rally Youth Around Your Pilot. Visualize Solutions.

# Key To Moving Minds

## Passionate Educators

- Educators are strong advocates, community liaisons and cheerleaders. There is a direct correlation between a passionate educator and an inspired child.
- Educators can help facilitate the exploration of new mobility issues within communities your pilot with students.
- Your pilots represent real world application of science, technology, engineering and math. Countries are looking for innovative curricula and engaging hands-on activities that will make today's youth and their countries globally competitive in the 21st century.
- Educators create the demand to learn and apply science, technology, engineering and math to real world community issues.

# Key To Moving Minds

## Mobilized Community

- Gathering of the minds to visualize solutions. Thousands of pairs of eyes and brains are solving the problem now. At a fraction of the cost.
- Your Pilot becomes the “ Vehicle” or Rally Point for Youth, Educators and the Community.

# For More Information

FIRST and FIRST LEGO League Program

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

or

Cindy Randall, President, Granite Hill Consulting  
LLC

[cindy@granitehillconsulting.com](mailto:cindy@granitehillconsulting.com)