

# Automotive X PRIZE Education Program

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X PRIZE Foundation

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Project ID #  
ti\_12\_german

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# Overview

## Timeline

- Project start date: 9/1/08
- Project end date: 11/30/10
- Percent complete: 35%

## Budget

- Total project funding
  - DOE share: \$3,504,686
  - Contractor share: \$0
- Funding received
  - FY08 (BP1 = 9/1/08-1/31/09): \$499,324
  - FY09 (BP2 = 2/1/09-1/31/10): \$475,000 (of \$1,488,574)

## Barriers

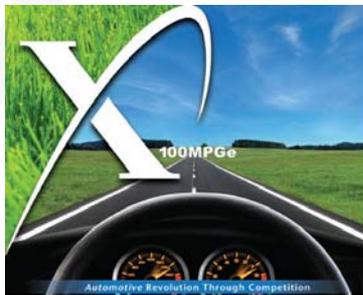
- Barriers addressed
  - [None applicable]

## Partners

- Discovery Education
  - Online Interactive Knowledge Center
- Widmeyer Communications
  - National High School Student Contest
- Saint Louis Science Center & C. Fox Communications
  - Competition Host City Educational Events
- More to be identified
  - Vehicle Telemetry

## Objectives: Project Goals\*

- To engage students & the public in learning about advanced vehicle technologies, energy efficiency, climate change, alternative fuels, & the science, technology, engineering, & math behind efficient vehicle development
- To inspire youth to learn more about & pursue careers in advanced vehicle development
- To generate enthusiasm about the energy-efficient vehicle options of the near-future
- To showcase the 21<sup>st</sup> century learning skills needed to succeed in work & life, including creativity & innovation, critical thinking & problem solving, communication & collaboration



*\*Note: This grant supports the education component of the Progressive Insurance Automotive X PRIZE (<http://www.progressiveautoxprize.org/>). The goal of the Progressive Automotive X PRIZE is to inspire a new generation of viable, super fuel-efficient vehicles that offer more consumer choices. Ten million dollars in prizes will be awarded to the teams that win a stage competition for clean, production-capable vehicles that exceed 100 MPGe.*

# Objectives: Project Components

- **Online Interactive Knowledge Center = [www.FuelOurFutureNow.com](http://www.FuelOurFutureNow.com)**
  - Contains educational content, tools, resources, & programming in multiple formats for K12 students, teachers, parents, & the general public
  - Features a vehicle telemetry-based experience with eco-feedback indicator
- **National High School Student Contest**
  - Challenges teams to imagine the role of transportation in their future
  - Involves expert judging & online voting
  - Yields regional & national winners to be part of competition host city exhibitions
- **Competition Host City Education Events**
  - Provides opportunities for students of all ages to participate in contests, parades, expos, & other events at science centers, museums, & community festivals
  - Encourages youth to learn more, take action, & contribute to local service-learning projects
  - Includes student reporters covering the events

## Objectives: Current Year

- The launch of an online knowledge center ([www.FuelOurFutureNow.com](http://www.FuelOurFutureNow.com)) to provide comprehensive resources easily accessible to students, teachers, parents, & all who have a curiosity to learn more about the Progressive Automotive X PRIZE
- Ongoing maintenance, updates & additions to the online knowledge center
- Launch of a national contest to harness student creativity, inviting teams of high school students to imagine what the role of transportation will be in their future world
- The detailed specifications of vehicle telemetry requirements & eco-feedback indicator

# Milestones: FY2008\*-2009

Month/Year	Milestone or Go/No-Go Decision
1/09	Completed Task 1: Specification & design of online knowledge center
1/09	Completed Task 2: Development of online knowledge center website infrastructure
1/09	Completed Task 3: Creation of content & partnerships for online knowledge center
1/09	Completed Task 4: Quality assurance, launch & performance tracking of online knowledge center
3/09	In progress Task 5: Vehicle telemetry sub-system data design
3/09	In progress Task 6: Refine specifications for eco-feedback indicator
Ongoing	In progress Task 7: Ongoing content creation, refresh & maintenance of online knowledge center
3/09	In progress Task 8: Design goals of a high-school national contest & create preparatory materials for student teams
3/09	In progress Task 9: Design processes & criteria for judging of student entries
9/09	Not started Task 10: Announce national contest & promote to students, teachers & parents

\*Note: As the grant started on 9/1/08, there was only one month of activity during FY2008.

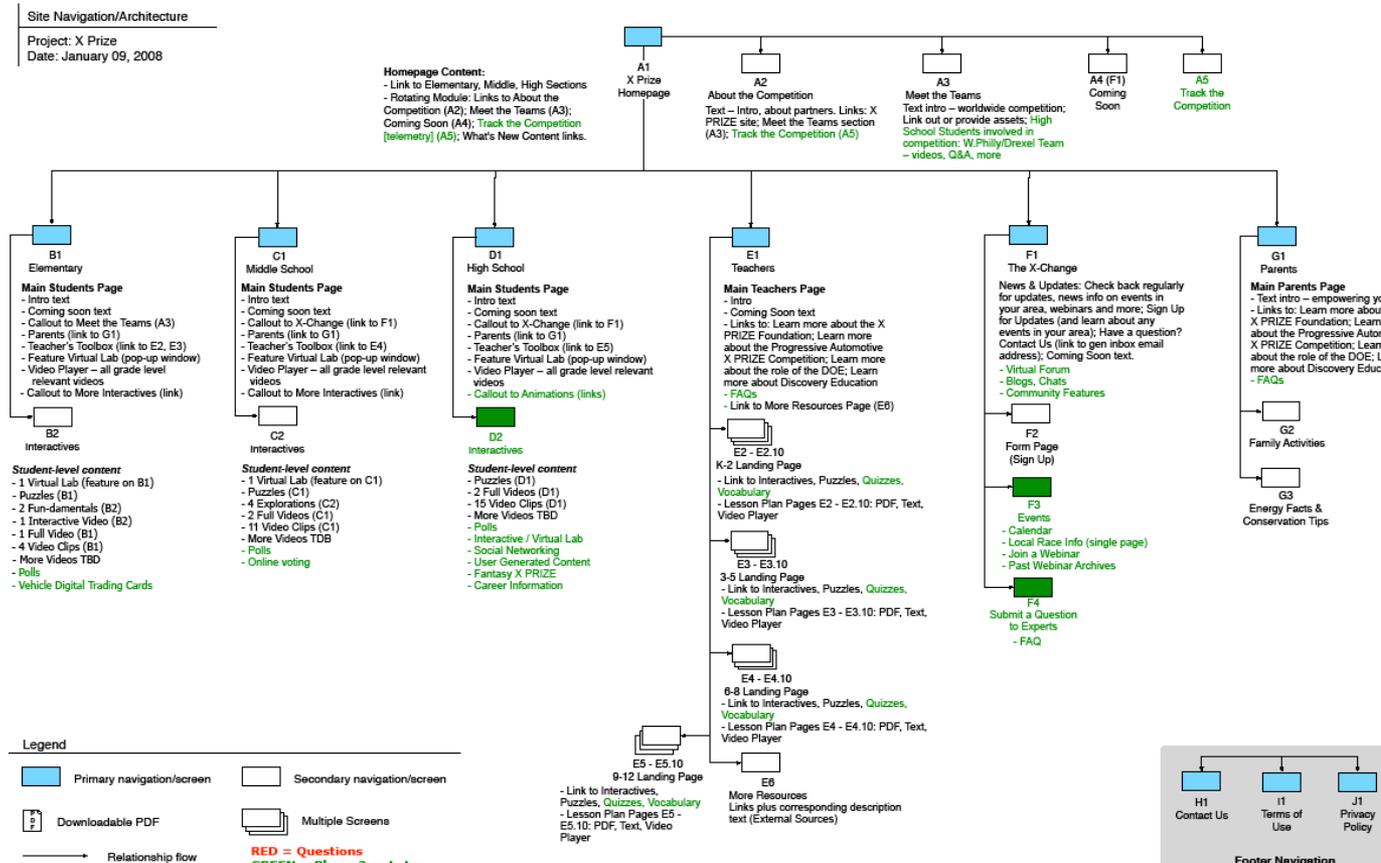
# Approach

- Initiated a competitive request for proposal process to identify sub-recipients & vendors to develop educational tools, resources, & programming in multiple formats; this yielded proposals from 9 content & 5 telemetry organizations, including selected partners:
  - Discovery Education, with 35 million students & 1 million teachers engaging with their K-12 videos, virtual labs, interactives, & related content daily
  - Widmeyer Communications, who specialize in public affairs campaigns, including *Stop Bullying Now!* for the US Department of Health & Human Services
  - Saint Louis Science Center, whose Science Beyond the Boundaries Network reaches 33 million science center visitors at over 100 museums worldwide
  - C.Fox Communications, who provides strategic communications counsel, media relations, writing, & creative services to major trade organizations, foundations, Embassies, & Fortune 100 companies



# Technical Accomplishments/Progress/Results

- Online Interactive Knowledge Center ([www.FuelOurFutureNow.com](http://www.FuelOurFutureNow.com)) went live on 1/31/09



# Technical Accomplishments/Progress/Results

- Formal website launched at the Washington Auto Show on 2/3/09
  - Introduced by David E. Rodgers, Director for Strategic Planning & Analysis at the US DOE Office of Energy Efficiency & Renewable Energy
  - Press release was issued to consumer automotive press
  - Website demo was on display
  - Web cards were distributed to interested parties



- National High School Student Contest Design Session held with program partners in Washington, D.C. on 3/16/09

# Future Work: Curriculum Launch at NSTA

- Grades K-12 curriculum (250+ pages) will be introduced to educators during an interactive workshop on 3/21/09
  - K-2 will be challenged to find out what makes cars go
  - 3-5 will focus on building the skills needed to learn about force & motion & efficient energy transfer within a vehicle
  - 6-8 will investigate fuel efficiency & develop a futuristic, energy efficient vehicle
  - 9-12 will be tasked with analyzing patterns in mass transit usage
- Booth presentations will be conducted
- Press release will be issued
- Postcard will be distributed



**FUEL OUR FUTURE NOW**

Join us for a **free** workshop!  
Fuel student curiosity about alternative energy sources and the future of transportation with brand-new STEM curriculum. Attend the workshop for a sneak peek at sample lessons and a chance to win a **free Discovery Education DVD**.

PROGRESSIVE AUTOMOTIVE X PRIZE  
DISCOVERY EDUCATION  
U.S. DEPARTMENT OF ENERGY

**FUEL OUR FUTURE NOW** Workshop  
Saturday, March 21  
8:00-9:30am  
Room: 225, Ernest N. Morial Convention Center  
Grades 6-12  
visit [FuelOurFutureNow.com](http://FuelOurFutureNow.com)

## Future Work: Milestones, FY2009-2010

Month/Year	Milestone
9/09	Task 7: Ongoing content creation, refresh & maintenance of online knowledge center
3/09	Task 8: Design goals of a high-school national contest & create preparatory materials for student teams
3/09	Task 9: Design processes & criteria for judging of student entries
9/09	Task 10: Announce national contest & promote to students, teachers & parents
1/10	Task 11: Complete judging of student entries in national contest
4-9/09	Task 12: Design telemetry-based Internet experience
10-12/09	Task 13: Implement telemetry-based Internet experience version
10/09-9/10	Task 14: Ongoing content creation, refresh & maintenance of online knowledge center
5-8/10	Task 15: Implement telemetry-based Internet experience version 2 & operate during the competition
9/10	Task 16: Implement post-competition telemetry analysis
5-8/10	Task 17: Host educational activities during the local host city events of the competition
5-8/10	Task 18: Promote local educational activities during the local host city events of the competition to a national audience

## Summary

- All milestones & deliverables to date have been met on-time & on-budget, despite an aggressive timeline due to longer-than-expected grant process, resulting in the compaction of development calendar by 1 month
- Outstanding sub-recipients & vendors identified through competitive RFP process
- Online Interactive Knowledge Center ([www.FuelOurFutureNow.com](http://www.FuelOurFutureNow.com)) successfully launched
- Cost-effective vehicle telemetry-based experience with eco-feedback indicator solution being developed
- National High School Student Contest is in design & on-track for a Fall 2009 announcement
- Well positioned for future grant deliverables, including competition host city education events