

# ETIC/OPAS Pre-college Investment Model

Draft for Discussion Only

Bruce Schafer

January 8, 2008

# ETIC and OPAS Goals

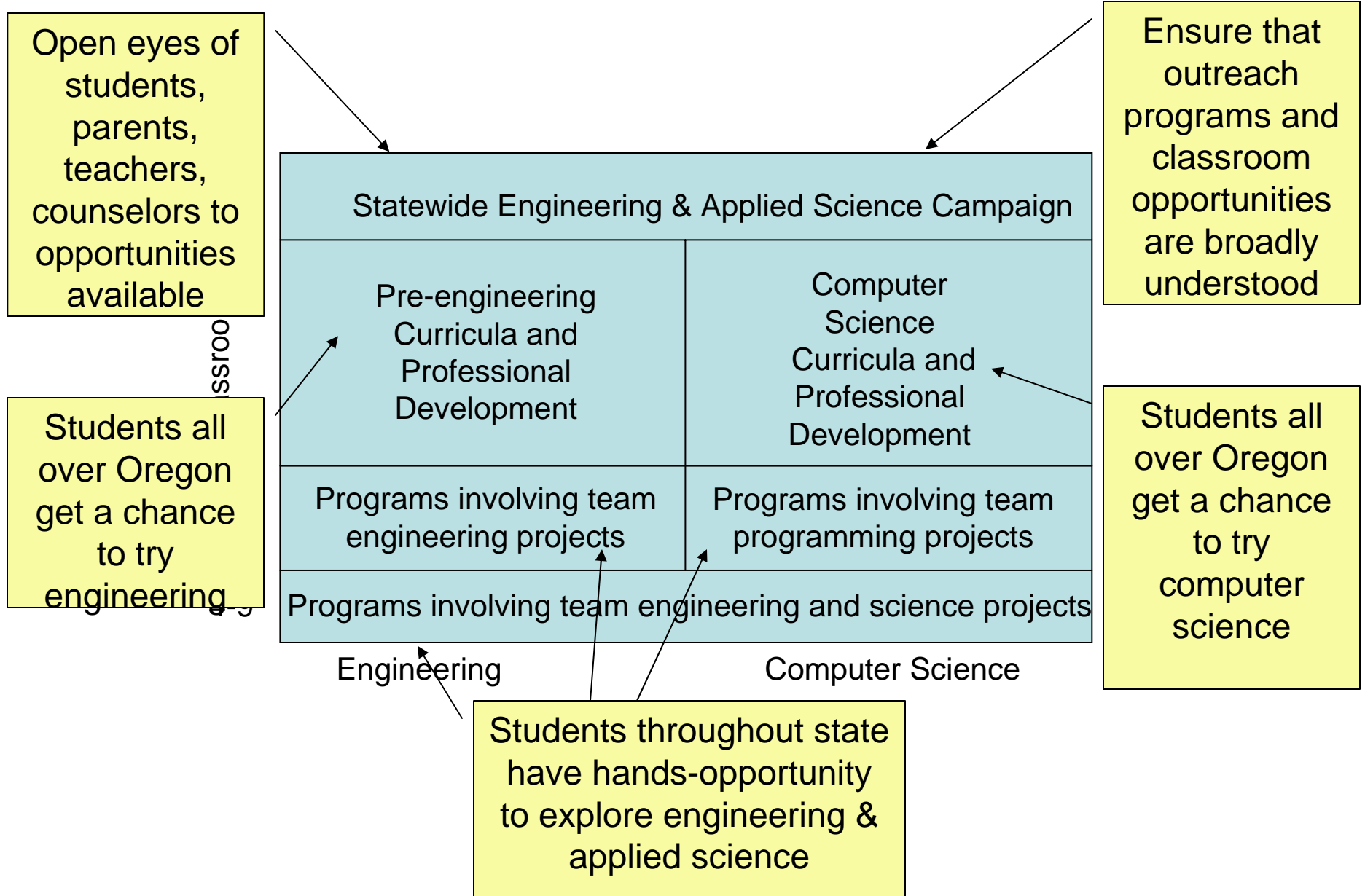
- Subset of ETIC goals:
  - Reach 2X\* bachelors degrees by 2013
  - Make big step towards addressing lack of gender and ethnic diversity
- OPAS Role:
  - Dramatic increase in number and diversity of young people who choose engineering and applied science as their undergraduate major from 2009 to 2013
  - Establish best practices to further growth thereafter
  - Provide benefits to all the other students who choose other careers

\* Vs 1999 Baseline

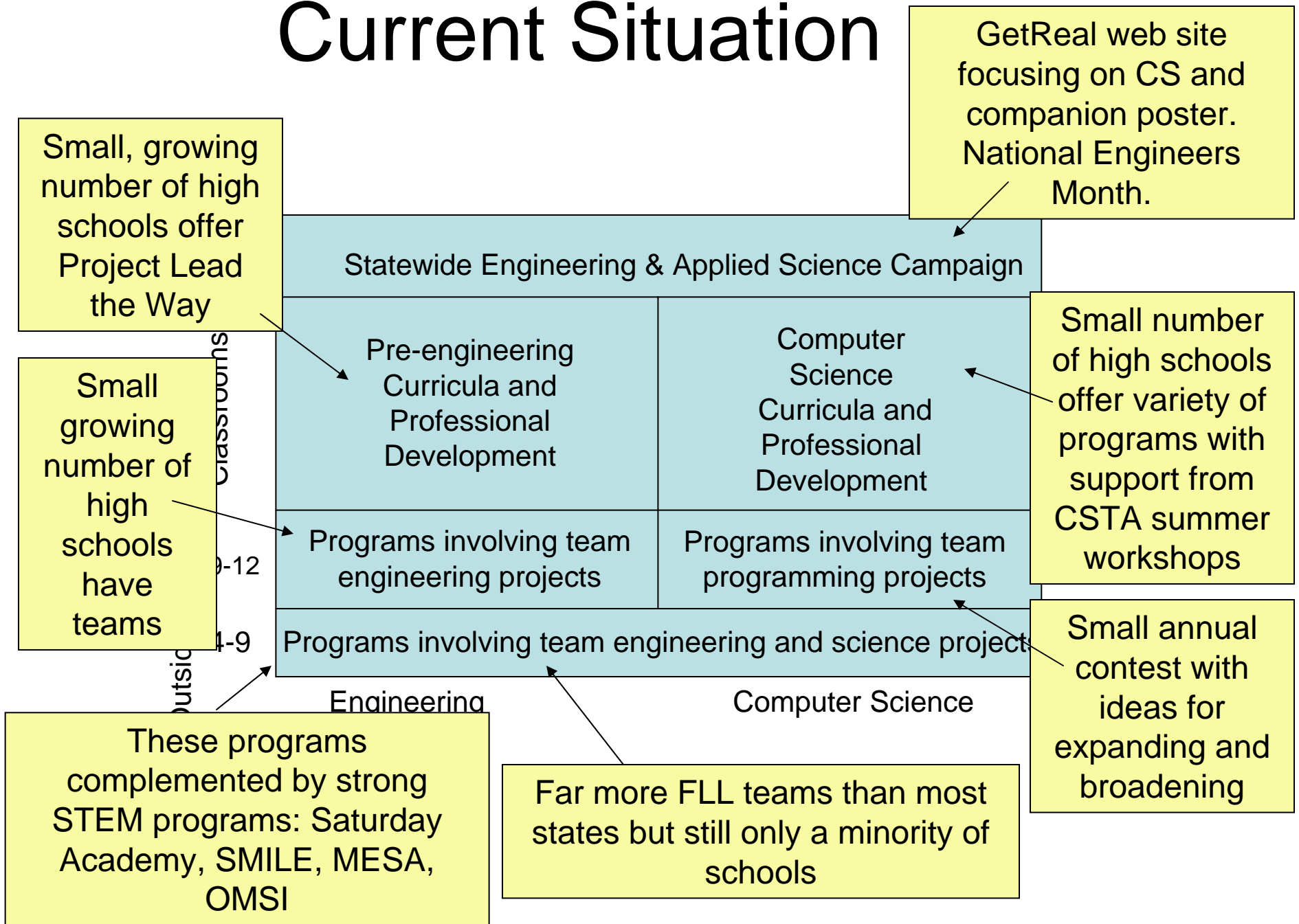
# Possible Model for Investing

Marketing	Statewide Engineering & Applied Science Campaign	
Classrooms	Pre-engineering Curricula and Professional Development	Computer Science Curricula and Professional Development
	9-12 Programs involving team engineering projects	9-12 Programs involving team programming projects
Outside of class 4-9	Programs involving team engineering and science projects	
	Engineering	Computer Science

# Benefits of this approach



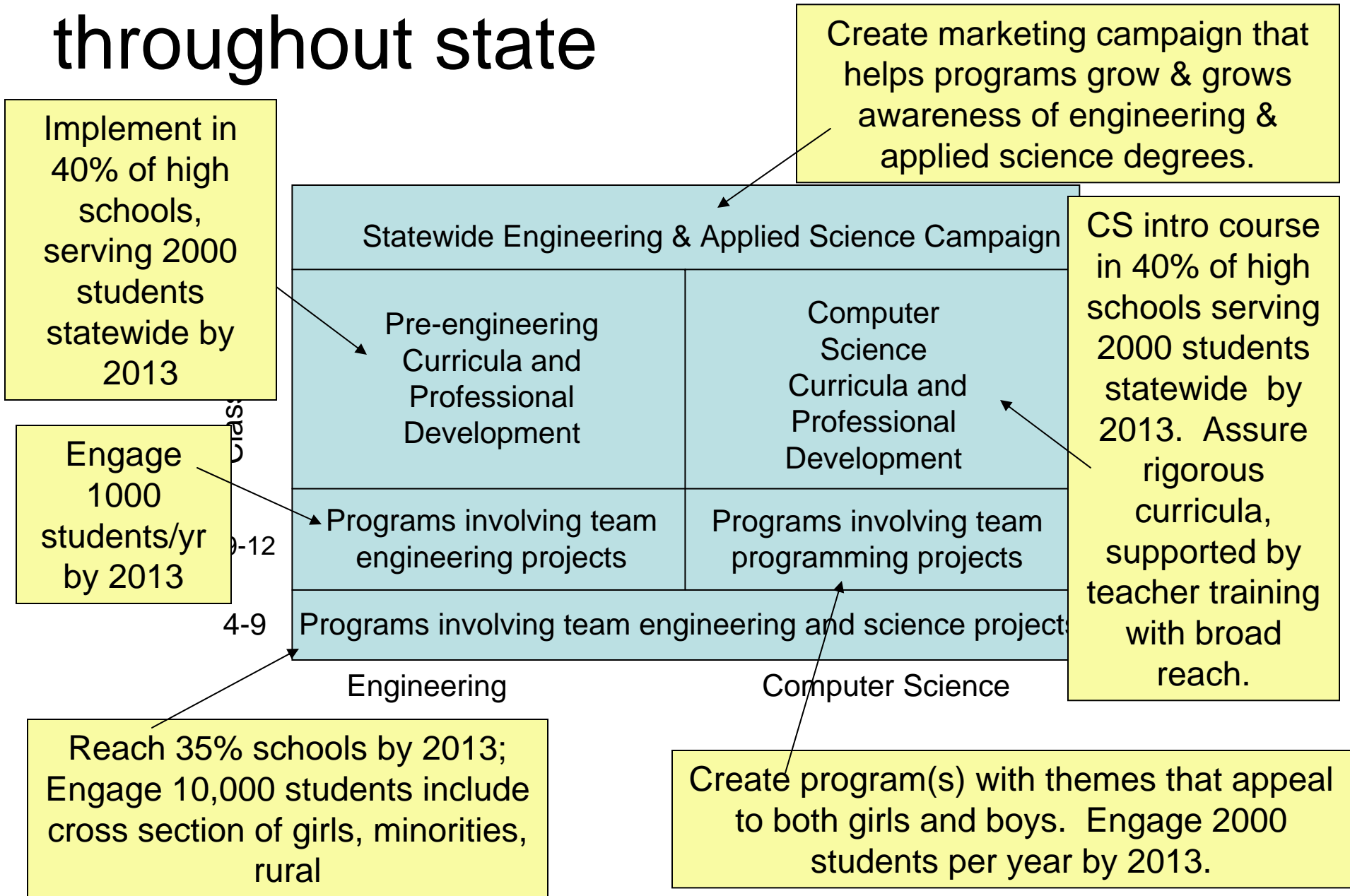
# Current Situation



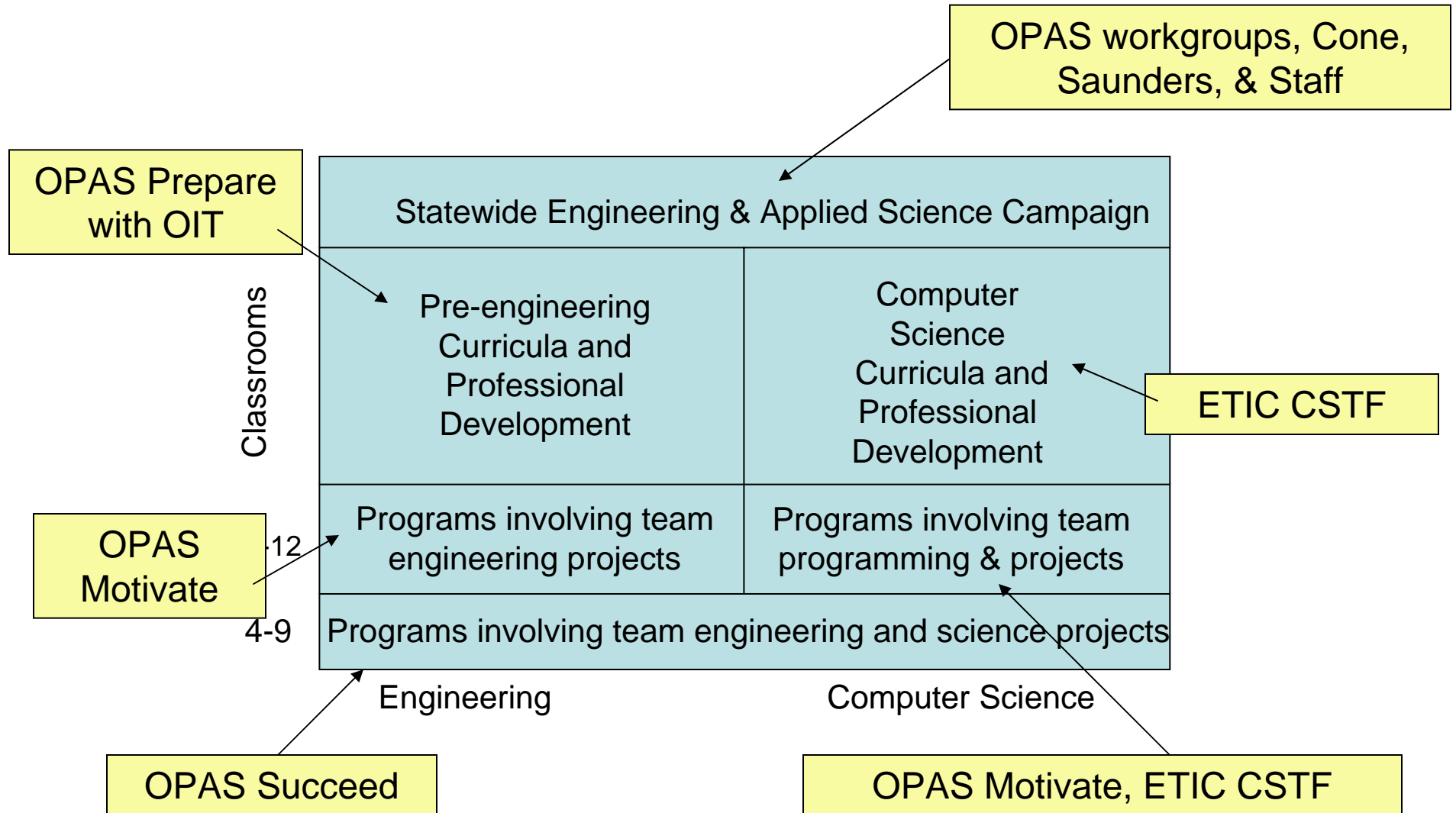
# The Opportunity

- Use hands-on nature of pre-engineering and applied sciences to show students relevance and engage them in rigorous understanding of science and math, building problem solving and teamwork skills
- Reach more and greater diversity of students in terms of gender, ethnicity, and location.
- Take advantage of what we know to scale up effective programs.
- Provide teachers and other adults with the resources they need to motivate and prepare these students for success in a variety of career pathways.
- Provide opportunities for all young Oregonians to aspire to and participate in rewarding technical careers.
- [How does our approach relate to new diploma requirements]
- [Add references to national reports on STEM: need for STEM literacy; correlation between effective outreach and choice of majors, etc.]
- [Describe the types of intermediate outcomes we looking for. E.g.. Change in student attitudes; increase in test scores; increase in enrollment in rigorous math and science; increase in choice of technical majors.]
- [Describe relationship to NCLB/AYP assessment]
- [Describe relationship to AP and IB]

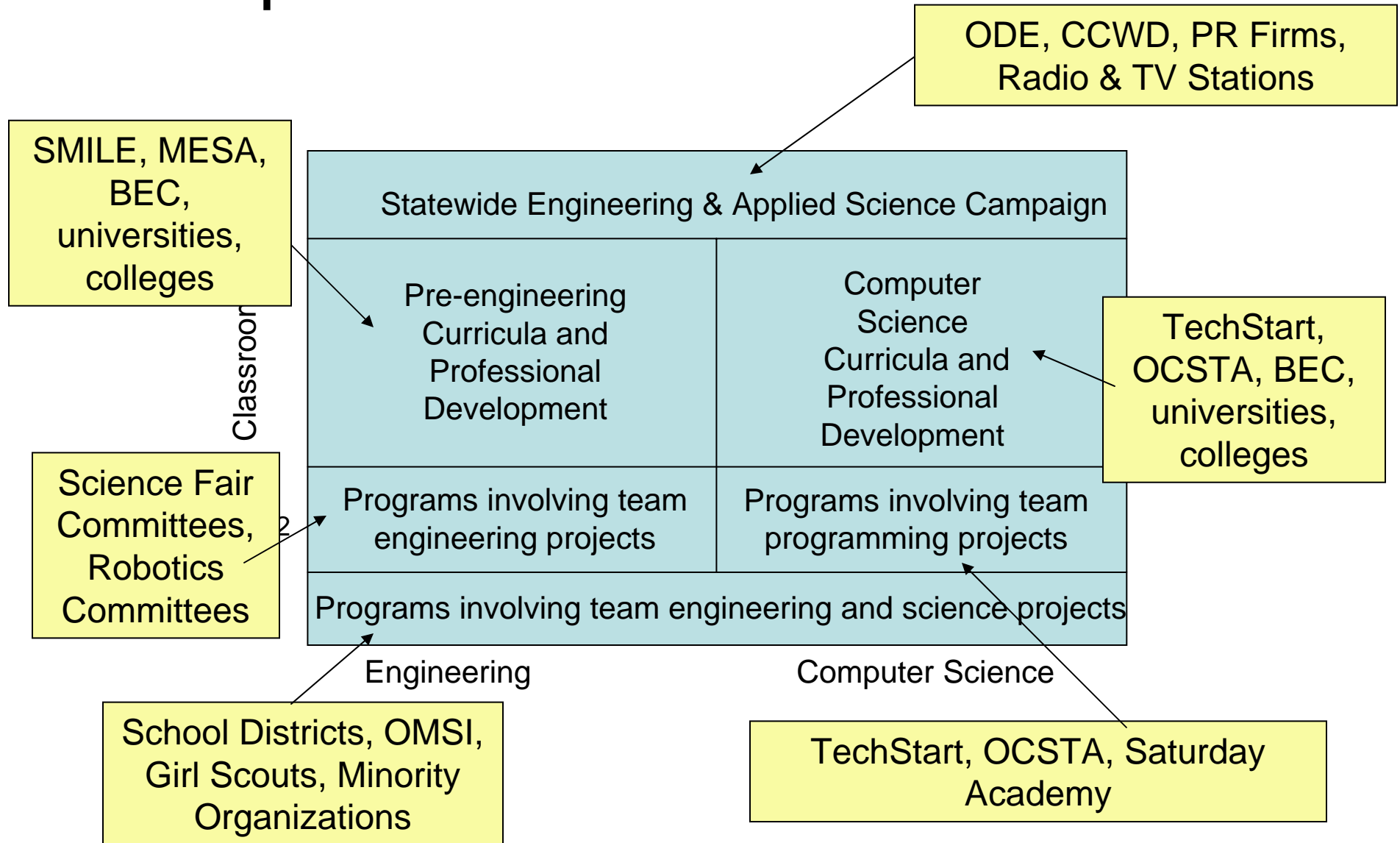
# Grow programs to benefit students throughout state



# Create Plans For Each Goal



# Examples of Potential Partners



# Examples of Issues

