In this talk, we describe a center for excellence titled COMPLETE (Center for Outreach in Mathematics Professional Learning and Educational Technology) whose mission is to promote excellence in mathematics teaching, learning and collaborative mentoring in Northern Virginia through innovative solution-oriented initiatives and technology integration with emphasis on research and education. The COMPLETE center provides a collaborative network that brings together a consortium of mathematics supervisors and leaders from ten school districts that collaborate with mathematicians and mathematics educators from an institution of higher education in Northern Virginia to develop mathematics based educational programs for students and teachers to solve real-world problems that focus on 21st Century Skills including critical thinking, problem solving, communication, collaboration and creativity, careers, technology and innovation. We will describe both state-wide as well as nationally funded mathematics partnership projects supported through the center that have impacted teachers, undergraduates, graduate students and faculty to become change agents to transform institutional and school district practices. (Received September 20, 2016)