Innovative business and technology systems that yield high engagement with customers, energy use reduction, and new business ecosystems can bring about a reduction in energy usage through behavioral and smart home interventions. This is particularly important given new EU and USA energy reduction targets.

Under the ChangeLabs project, Stanford researchers created new **Behavior Change Business Models** as well as exploring the structure of an **Open Platform for Smart Home Applications**. This intersection can lead to new platforms that will allow the deployment of innovative technology solutions. The ChangeLabs approach is to drive this level of innovation through an integrated and holistic assessment of the current system, rapid technology and business modeling, and behavioral economics. Leveraging expertise in technology, business, and behavior, ChangeLabs can develop sustainable solutions in the area of smart home sensing and energy behavior change. The final product will be an innovative ‘technology-enabled business-model and experience design to catalyze reduction in energy usage through behavioral interventions’ package. The solution will contain both strategic objectives and actionable experiences to deliver to energy customers and help bring in a new phase of information based demand side management.

The benefit of the ChangeLabs approach is that we offer human-centered and experientially compelling business models that can be turned into tangible business pilot studies to evaluate for viability. Since we work with Behavior Change and Behavioral Economics experts, the innovations will have changing of behavior norms and new habits as a core objective. ChangeLabs incorporates these design considerations into the platforms it develops. This allows our solutions to engage users in a way in which there is a higher likelihood of a pull than a push. The essence of this is accomplished through examining the intersection of energy consumption, insights about the people’s current mindsets, and behavior change innovation methodology.

Monetizing energy efficiency and creating a highly effective platform for smart home apps does not have to be mutually exclusive. The intersection of these two challenges occurs at the demand side where consumer behavior becomes integral to the solution. This is the unique perspective that ChangeLabs offers. Not only can we develop the technology/business models to fulfill these goals, we deeply integrate consumer motivations and behavior into the solution.

Rather than prescribing the solution, the ChangeLabs methodology allows for us to explore the unique leverage points within a system to optimize the effectiveness of the
business and technology solutions. The key operating principal is effective and efficient interventions. Rather than optimizing a particular technology, this approach is about holistically optimizing a strategy. This strategy will include technology, business models, and consumer experiences, but it will optimize them together.

**Systems Approach:**
The ChangeLabs approach is unique as it examines a problem from multiple lenses to generate holistic solutions. The key success in developing an open platform for smart home applications is to ensure widespread interest and adoption in both its customer and developer base. In parallel, the key to success in developing a profitable business model for energy efficiency investments is the integration of consumer behavior modification with profit driven outcomes. As a part of the innovation methodology, ChangeLabs can address and meet both targets.

Current models and technology driven solutions function as isolated interventions. This limits the potential for companies to expand their reach as a clearinghouse for smart home applications and to derive it’s own financial value in energy efficiency measurements. The consumer is the key driver behind this process. New consumer behavior can drive and create these new businesses. The starting point for ChangeLabs is to assess this system to determine optimal leverage points. These points of entry can be used to drive change and create new behavioral outcomes, which can ultimately create the business/financial ventures that companies hope to pursue. This stage of the process will include in depth ethnography, synthesis, and concept generation.

Concepts that result from understanding the system, consumer behaviors, and current operations within companies, will ultimately go through a filter to determine two to three optimal paths for more concrete implementation. At a high level these paths will combine new consumer behaviors with new transaction systems. The result will be an open platform that becomes a central entry point for smart home app developers and derives value from the customer side adoption and new behavioral outcomes. The two to three paths identified will be examined and scrutinized. These paths are the combination of technologies, business models, and customer experience strategies.