

# Essence of Life

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## Who we are: Xylem

Xylem is one of the world's largest pure play water companies, serving customers in over 150 countries with highly efficient, environmentally sustainable water management solutions solving specific applications issues. Our extensive and exciting portfolio addresses the full cycle of water from irrigation to drainage, from water purification to distribution, from quality monitoring to consumer use, and finally from waste removal to clean return to its source. We have the capability, channels and credibility to serve emerging markets - and to do so in a rigorously tested, economically sustainable manner.

## Essence of Life: A logical extension of Xylem's expertise and capabilities

Our "Essence of Life" (EOL) portfolio extends this application expertise and embraces global leadership in the execution of a "Hybrid Value Chain" of citizen sector (private and non-governmental organizations (NGO)), government and business partnerships. The hybrid value chain leverages the technological excellence of our small form factor, DC and human-powered pumping solutions to create compelling, unique and differentiated systems. These solutions prove capable of supporting alternative energy methods and exhibit robust product designs as demonstrated by winning a 2011 Popular Mechanics award for innovation.

Based on our successful use of the hybrid value chain channels, Xylem is engaging specific agri-business market leaders. Through leveraging our unique water management technology with our partners strong channel presence and synergistic agri-business dominance, we are creating an extended market offering.

Taken collectively our pioneering model addresses a compelling global market, fields truly differentiated products with strong value propositions, and provides a sustainable engagement strategy.



## Essence of Life

- **Compelling business proposition**  
2.5 billion people live on less than \$2.50 per day.
- **Differentiated product portfolio**  
Rural innovation process. Think big. Start small. Move fast.
- **Sustainable engagement strategy**  
Leveraging the Hybrid Value Chain concept; an innovative public-private collaboration.

## What inspired us?

**Aspiration is Universal.** Over 2.5 billion people currently live at the most socio-economically challenging level, a level commonly referred to as the economic base of the pyramid. Our goal: to engage this sizeable and compelling market segment.

**Poverty alleviation is impossible without food security.** Three-quarters of the world's poor live in rural areas. Their livelihoods - their means of supporting their families - depend on agriculture, forestry, and fisheries. For these rural poor, agriculture has an outsize role to play in the quality of their lives.

**Food security (and development) is impossible without agriculture.** In many developing countries, agriculture generates one-third of the national income, and employs over half of the total workforce.

**Agriculture is impossible without water.** Without a rational, sustainable water management system, farmers must rely on inefficient, labor intensive and unreliable methods, leaving their families and livelihoods at the mercy of weather patterns.

It all comes down to access to water. There is enormous need for—and enormous economic upside potential in—affordable, field-serviceable irrigation systems across the developing world. The benefits of innovative water management “ripple” across regions.

“Entrepreneurial, aspirational, incredibly hard-working farmers make up one-third of the world’s population.”

### **Going where the need is greatest and the impact widest: Smallholder farmers**

The EOL business model encompasses not only a robust, socio-economically tuned portfolio but also bridges the divide between the private sector (Xylem and its specific partners), the government and citizen sector (including NGOs). This unique model articulates a pioneering value proposition, addressing those living at the base of the economic pyramid, commonly quantified as the 2.5 billion people earning less than \$2.50/day.

Crucial to our EOL execution is grounding our business model in solid value propositions to both our rural farming customers and our hybrid value chain partners. Keeping an international focus on food security and water scarcity, our business plan uses Xylem’s unique technology advantage to field appropriate products, addressing these vital issues. In particular, our products address the need for more productive agriculture to meet the food needs created by demographic growth.



The aspirational nature and vision of farmers is universal; to provide greater opportunities for their children, and a better life outside of poverty.

### **The starting point: the smallholder farmer.**

Entrepreneurial, aspirational, incredibly hard-working farmers make up one-third of the world’s population. 1.5 billion of them are smallholders, those who farm for their own food and that own and/or cultivate less than 2.0 hectare (about 5 acres) of land (as defined by the Food and Agriculture Organization of the United Nations (FAO)). Their economic role is significant: for example, as an agricultural nation, 50 percent of the total workforce in India is involved in farming. According to a World Bank Report on investment in agricultural water, in Africa it is 70 percent of the poor that live and work in rural areas. And most are smallholders who depend on agriculture for their livelihoods. However, on a global scale, much of their arable land—and entrepreneurial energy—is underutilized for lack of water access. The aim of Essence of Life is to make a positive impact on this situation through creating affordable, field-serviceable irrigation systems that meet the needs of smallholder farmers.

In the course of our extensive field visits, we have seen that being able to use their land to its fullest potential has an enormous impact not only on the lives of these farmers and their families, but in ripples across the surrounding economy as well. The need to boost smallholder

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farmer capability in developing regions, and the positive impact it can have now and in the future, is borne out by data released by the United Nations (UN):

- To feed more than 9 billion people in 2050, agricultural production will have to double from current levels in developing countries.
- Global development focus is on increasing smallholder productivity to improve food security, often through smallholder schemes that target large numbers of farmers.
- Increasing and inefficient water usage is leading to greater focus on water use efficiency and the sustainability of these water sources.

We're confident the EOL program's combination of field-tested products and widespread accessibility comes at the right time to help meet these challenges.

### Who's with us?

Our business model includes defining specific partnerships that better enable us to address the various needs for sustainable and successful agricultural innovation. These partnerships include, but are not limited to, organizations working within the areas below and reflecting a mix of the government, citizen sector groups and private businesses, each bringing their specific expertise and goal-appropriate geographical presence.

1. Global Outreach: we're partnering with organizations focused on rural poverty alleviation

2. Local NGO's: we work together to capture insights from people in the field and engage community influencers
3. Sales & Distribution Channels: we're formalizing efficient channels for messaging, sales, and servicing
4. Micro-Financing: this proven model will help us to establish a socio-economic environment suitable for product purchasing
5. Product Realization: we're identifying in-the-field avenues for testing and procurement
6. Education Development: we're excited to create collaborative, local, cultural partnership and pipeline activities for new employees
7. Government Outreach: this is allowing us to generate local "pull" for Xylem participation
8. Business Partners: we're working with both agribusiness and commercial interests to create partnerships in regional expertise and government relationship building



Traditional furrow irrigation uses up to 40% more water compared to pressurized water delivery methods like spray or drip irrigation.



Current water management techniques used by smallholder farmers include a carried bucket.

## In it for the long run: Sustainability

Sustainability, in terms of business commitment, investment, and profitability, proves an essential component of our strategy. We encourage the entrepreneurial spirit found so abundantly in the rural communities with whom we work. By meeting with smallholder farmers directly, by listening to their input regarding their water access needs, we've developed products that can help increase their self-sufficiency. Through extensive interviews, we've observed that the aspirational nature and vision of many rural farmers is similar to ours: the hope of providing a greater educational experience for their children and supplying them with a better life, outside of poverty. As noted by many NGO's, the key is developing these farmers' inherent capability for self-reliance, noting the historical adage; "if you give a person a fish, you feed them for a day, if you teach a person to fish, you feed them for life."



The Essence of Life program is positioned to grow together with the communities we serve.

In developing specific products, suitable for harsh rural environments, Xylem's Essence of Life program delivers affordability and applicability to these targeted rural customers, while also ensuring a level of business profitability necessary to maintain the growth and longevity of the EOL business model. This strategy couples directly with the aforementioned hybrid value chain relationships, ensuring not only a strong sales position but an innovative and customer-pleasing service position.

Enabling a robust and timely service position proves as critical in rural markets as in developed region markets. The cost of a smallholder farmer's investment in a water access product can be as much as one-third of their harvest revenue. The result: for these farmers and their families, experiencing product failure at a crucial point in the crop cycle is simply not an option. This critical eye on service position and offering remains of paramount importance to the growth of the business, product field resilience, and customer acceptance.

The Essence of Life program ensures we're developing the fundamental, first step customers whose communities will engage with Xylem's extended portfolio of water management products as they grow. The challenges faced by smallholder farmers are many; the responsibility to help them meet those challenges is global. We are honored to be a part of the solution.