

Intel Sustainable Development Strategic Plan Feb 12

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Project XL

In 1996, President Clinton and Vice President Gore led a reform in environmental public policy in the United States that was dubbed Project XL (eXcellence Leadership Project). The purpose of the reform was to reinvent regulation at the Federal Environmental Protection Agency (EPA) leaving behind the framework of “command and control” and defusing its share in command and control to the organizational stakeholders. The audited organization is required to develop internal and external control and reporting mechanisms and its stakeholders have been given the responsibility for external supervision and control. With each body selected to participate in Project XL, EPA has conducted individual negotiations regarding the required commitment to pollutant emission quotas and the extent to which the organization selected will make use of energy and water. The size of the individual quotas for pollutant emissions was lower than the quotas allowed by environmental laws and against them incentives were given for the management of pollutants and the licensing methods of production processes. Incentives on the side of tightening quotas to reduce pollutant emissions have in many cases led to great innovations in the conceived sustainable development processes in the selected organizations.

Sustainable development begins in Intel

Sustainable development began at Intel with the adoption of Project XL to advance its economic interests alongside the understanding that they are not detached from environmental and social needs. Intel's strategic business choice in adopting Project XL joined a series of strategic moves it made based on the understanding that in markets where a processor becomes obsolete quickly (Moore's Law), it is important to market processors in a short period of time (Time-To-Market). Therefore, shortening the marketing time is critical. Marketing the processors before the competitors, will increase their sales capabilities and

hence increase the value of the corporation. Intel has agreed to detailed and stringent EPA requirements for waste treatment and pollutant emissions beyond compliance and has pledged to return water. In return the EPA was open to a flexible management of pollutant emissions and the licensing process for processor production was shortened at the production site. To implement the Project XL terms, FAB 12 was built in Chandler, Arizona, then Intel's largest production plant (Fab) in the world, with an investment of \$ 2.5 billion for the production process of Pentium 2 processors.

Intel management has instructed product designers to develop a product in accordance with the requirements. The development of the production processes by process engineers was done accordingly and at the same time all the changes in the **value chain** (see diagram below) of the corporation were re-examined subject to the socio-environmental needs. After the production and product processes were redefined, the requirements for the machines and chemicals processing materials of the process changed. This led to both changes in the supply chain and changes in the production process of the Pentium 2 family. (Intel had promised to return 100% of its incoming water but managed to reach a 95% return of recycled and purified water to the environment).

Pentium II

Intel's success was beyond expectations: the time to market of the CPU's was shortened by eight months and the production costs of the new processors were significantly lower than the production costs of the previous processors. In doing so, **it has improved the productivity of the corporation**. As a result of lower costs in the manufacturing process Intel was able to lower the selling price of the processors, thus being able to hurt the marginal profit of other computer manufacturers (Burgelman, 225).

Product differentiation

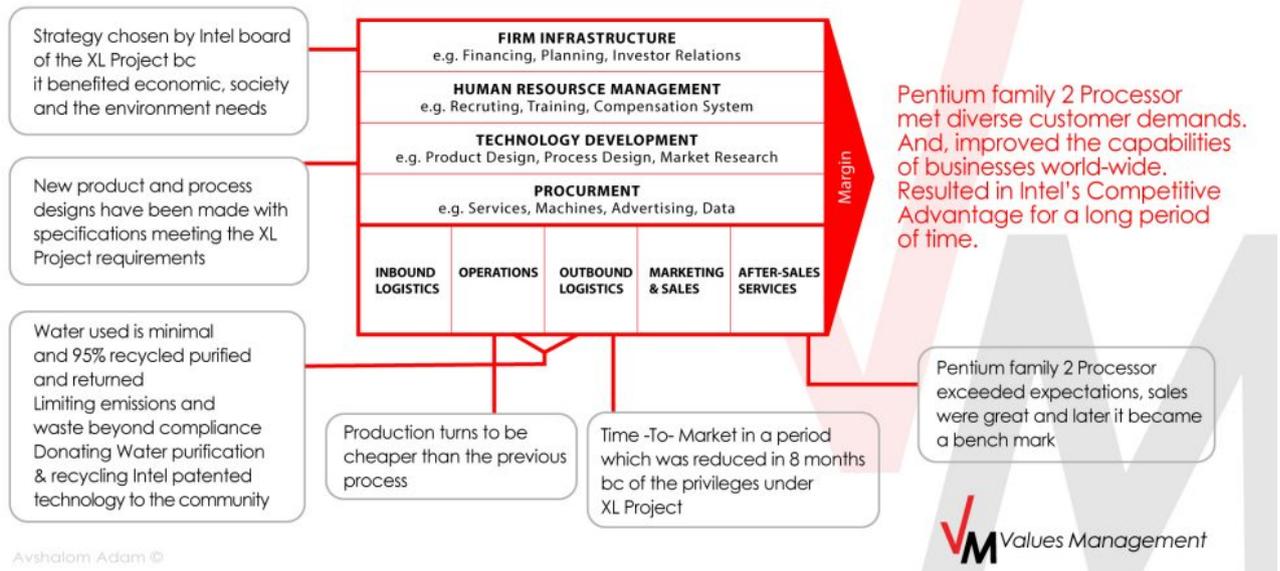
Furthermore, as part of the product development for the Pentium 2 family, the processors were designed for three types of customers, Lower end, models with simple processing capacity, Higher end, higher-priced models designed for servers and intermediate models, thus addressing customers of different types and achieving differentiation from competitors (Burgelman, 233-234). For

example, in 1996 a processor for servers sold by competitors to Intel for \$ 16,000, with Intel entering the markets for the sale of processors in 1998-1999, it managed to sell processors for servers for \$ 2,500, which led to a huge reduction in price for computer systems for servers and increase in its market share and TAM (Total Available Market) (Burgelman, 220). As a result of the strategic choice of XL project that accompanied a strategic set of decisions in the design of Intel product improved its product differentiation and competitive advantage

In accordance with the requirements of Project XL, an environmental reporting process was developed that included the various aspects of waste treatment and pollutant emissions. The report is made very transparent to various stakeholders that included representatives from civil society, and representatives from the public sector. Beyond that, Intel has returned water to the drinking water system and water for agricultural use, in addition, it has contributed water purification and recycling technologies to municipal authorities in the vicinity of the plant.

Identifying Opportunities in the Value Chain

Intel Fab 12 Chandler Arizona: 1996-1998



Copy Exactly

Intel has a production protocol of **Copy Exactly**, of the production processes and ethical-organizational culture. This means that the production process is replicated unchanged to other production sites and thus D2 in Santa Clara also produced the Pentium 2 family in accordance with the same requirements

including the commitment to the environment and sustainability. Later, Pentium 2 was also created in Israel. Intel was one of the first factories in Israel whose production processes met more stringent requirements than the requirements in Israeli legislation/regulations for the treatment of pollutants. Beyond that, Intel has also made a revolution in the culture of ethical behavior in Israel, but I have already discussed this elsewhere.

A side note, Intel's continued progress in sustainable development is evident in Intel's global reports. For example, according to Intel's publications in the Social Responsibility Report for the 2019-2020. Further, in its CSR report in Israel, it reports on its commitment to sustainability and the environment, and its rating reaches the Platinum Level in MAALA Index. Thus, its economic achievements exceed expectations, in 2019, Intel's exports from Israel amounted to \$ 6.6 billion, which accounted for 12.5% of total high-tech exports and its volume of activity was about 1.6% of Israel's GDP.

Today, Intel's corporate success world wide is rooted in a strategic concept of sustainable development and in the understanding that developing production processes as part of a commitment to sustainable development necessarily leads to innovation.

Bibliography

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