
APS1012 Management of Innovation – Final Team Projects, Summer 2013 (10-day class)**Wearable Electronics**

Wearable Electronics, often also described as wearable computing or wearable technology, is clothing or accessories incorporating computer and advanced electronic technologies. The designs often incorporate practical functions and features, but may also have a purely critical or aesthetic agenda.

The global wearable technology market's value was estimated to be more than \$4 billion as of 2012, and is expected to reach cross \$14 billion by 2018. It is expected to be the next big thing in the field of computing, with a new generation of electronic gadgets creating a wave similar to that created by the global smart phone revolution.

This study examines development and innovation trends in the hotly debated wearable technology sector, and presents investors with a concise but detailed assessment of this newly-emerging, innovative and tempting industry. The project included the following steps:

1. Analyze the status quo of different wearable electronics
2. Analyze targeted consumers and market tendency in wearable technology
3. Identify key innovations in the industry
4. Identify key barriers to innovation with regard to technology, economy, management and society
5. Lay out a blueprint for the development of wearable technologies

A potentially immense and unlimited market for wearable electronics will be unlocked through further innovations. These will not only offer provide breakthrough solutions for the main technologies problems, but also generate applications that appeal to consumer needs and desires. Innovation in wearable electronics must address the need to expand consumer adoption as part of the design process.

Areas for innovation will include fundamental materials, low- and high-level technologies, integration methods, chips, power supplies and user experience. Each innovation is likely to stimulate other needs, and could foster new products or market segments. To properly evaluate these innovations a set of metrics should be developed and standardized, including safety, privacy, security, data flow, fault tolerance, cost, durability, and so on.

Beside innovations in pure technology, innovations are required in related laws, advertisements, sales, educations, services, and other systems to advance consumer acceptance and adoption of wearable electronics. As these devices become commonplace, human culture will be impacted and changed accordingly, requiring further high-level innovations in order to bring about a smooth and beneficial transition.