

# d.light -A Case Study

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# Mission

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- **d.light** is a **for-profit social enterprise** whose purpose is to create new freedoms for customers without access to reliable power so they can enjoy a brighter future. We design, manufacture and distribute solar light and power products throughout the developing world. We aim to empower the lives of at least 100 million people by 2020. d.light serves over 62 countries, through over 12,000 retail outlets, 10 field offices, and five regional hubs. The company employs over 300 people directly, and indirectly employs hundreds more worldwide.

-<http://www.dlightdesign.com/who-we-are/>



# Co-founded by Sam Goldman and Ned Tozen

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- Goldman, who was in the Peace Corps in Benin Africa in 2004, had a neighbor's son who was burned by kerosene.
  - This alerted him to the magnitude of the problem of kerosene fires and burns.
- Goldman was given an LED light and this greatly improved his living in West Africa.
- While in a 2007 graduate class in social enterprise at Stanford, Goldman met Ned Tozen and two engineering students.
  - *Entrepreneurial Design for Extreme Affordability* course -Stanford Prof. James Patell
  - developed a prototype for a LED light charged by the sun.
- Introduced their prototype to villagers in Burma, who responded with great interest in their product.



# The problem:

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- More than 1/5 of the world (2.3-2.5 billion people) have no access to electricity.
- Many use kerosene to light their homes, spending 40% of their income on it.
- Kerosene contributes to 1.5 million deaths a year, and health problems.
- Kerosene also causes many fires in the under developed communities
- Could one address these problems while remaining a sustainable, for-profit company?



# Potential Solution

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- Produce a Solar powered, portable, LED light
- It needs to be inexpensive
- The company must be profitable
- How could it be designed and distributed?



# From an idea, through a course, to a business plan

- Worked with an engineering team during the Entrepreneurial Design Course
- Univ. of California, Berkeley's Social Venture Competition: second place
- First prize at Stanford's Social E-Challenge
- May 2007, \$250,000 first prize Draper Fisher Jurvetson Venture Challenge competition

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# Why Success in business plan competitions?

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- The breakthrough came when their team won the Draper Fisher Jurvetson Venture Challenge, earning them the prize of \$250,000.
- Why was their pitch so successful
  - Goldman spoke from his personal experience.
  - The team passed up other jobs to dedicate themselves to d.Light.
  - They had a strong team of businessmen and engineers.
  - d.Light blankets a very large demographic –targets a large market.
  - Iterated their product several times, and when the price proved to be too high, iterated it again.
  - Had a strong vision as a for-profit venture, but also measured their success by how many families it impacted. This showed the world d.Light has a sense of purpose and vision.



# Products





## d.light today:

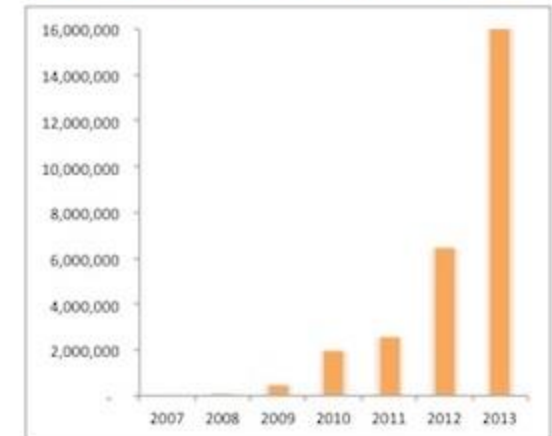
- 1 Million units sold in 37 countries.
- Claims the title of selling the worlds most affordable portable solar light, with a life of 50,000 hours.
- Employs indigenous people to sell their product locally in the country.
- \$6 Million in investment capital from U.S. and Indian Investors.

### Our Goals

We aim to empower the lives of:

- 50 million people by 2015;
- 100 million people by 2020.

### Progress To Date – Lives Empowered



<http://www.dlightdesign.com/who-we-are/>

# Investor update as of Spring 2014

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- “Investors are interested. d.light closed \$11 million in new financing in February, including from Draper Fisher Jurvetson, a leading Sand Hill Road VC firm, and Garage Technology Ventures, along with well-known “impact” investors such as Acumen and Omidyar Network. With the closing of its Series C financing d.light has raised about \$30 million in investments, and another \$10 million in awards and grants.”
  - <http://impactalpha.com/d-light-an-ipo-at-the-base-of-the-pyramid/>
- Distribution deal done with French oil company: Total.



# Social Impact Dashboard

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- As of Jul 31, 2014, d.light has achieved the following impact:
  - 37,912,976 lives empowered
  - 9,478,244 school-aged children reached with solar lighting
  - \$1,284,484,188 saved in energy-related expenses
  - 13,681,503,384 productive hours created for working and studying
  - 2,997,177 tons of CO<sub>2</sub> offset
  - 53,292 MWh generated from renewable energy source
    - (<http://www.dlightdesign.com/impact-dashboard/>)



# Challenges For the future:

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- Most prominent challenge is convincing customers with nearly no extra income to purchase an unfamiliar technology.
- Managing profitability and growth.
- Price would need to be cut in half to be universally affordable.
  
- Goal: Reach 100 million people by 2020 with its inexpensive solar-powered lanterns

# Questions for discussion

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- Describe how they marketed the products and why that was successful or not.
- How might they approach the challenge of reaching customers who have little experience with the technology?
- Are there strategies that they can use to lower costs?
- Are there any social, technological, economical, regulatory or other trends that can help (or hurt) them?
- Do you think they have created a sustainable company?



# d.light references

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  - <http://www.greenbiz.com/blog/2013/03/08/dlight-solar-power-poor>
- How d.light is growing its off-grid solar business: Design and distribution
  - <https://gigaom.com/2014/03/18/how-d-light-is-growing-its-off-grid-solar-business-design-distribution/>
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  - <http://impactalpha.com/d-light-an-ipo-at-the-base-of-the-pyramid/>

