

# oikos Case Writing Competition 2015

## Corporate Sustainability Track

### 1<sup>st</sup> Prize

## **Hopworks Urban Brewery: A Case of Sustainable Beer**

### **Teaching Note**

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This case is accompanied by a teaching note, available to faculty only. Please send your request to [freecase@oikosinternational.org](mailto:freecase@oikosinternational.org). The authors are thankful for any feedback and suggestions to further develop this case to **XX@XX**.

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## Teaching Note

### Hopworks Urban Brewery: A Case of Sustainable Beer

#### Introduction

This case describes the financial and branding cost/benefit tradeoffs facing a company in their efforts to incorporate sustainability into their long-term strategy. Hopworks Urban Brewery seeks growth that will force them to expand significantly beyond their current locations. They had pursued a strategy of competitive differentiation and positive social/environmental impact through a comprehensive approach to sustainability, including efficiency measures, certifications, and hiring a sustainability manager. As the company grows, however, they face questions regarding whether they should have a full-time sustainability manager, if they should change third-party certifications to ensure cheaper and more available ingredients, and what investments to make given limited available cash to best balance growth with sustainability.

#### Focus Areas

The case is designed to highlight decisions related to human resources, marketing and operations strategy, and cost-benefit analysis for sustainability with both defined and ill-defined inputs. Specific focus areas include:

- Marketing Strategy
- Supply Chain Strategy
- Human Resource Strategy
- Certification Programs & Eco-labeling
- Cost/Benefit Analysis
- Social, Environmental, and Economic Sustainability

#### Level of Analysis

This case has been written for advanced undergraduate courses and MBA courses in strategy, supply chain management, sustainability, marketing, or human resources. It is also suitable for use with business executives.

#### Suggested Study Questions

1. What are some of the consumer sustainability trends around different food and beverages products? How is beer different from something like coffee, chocolate or milk?
2. Is producing alcohol and running a pub contributing to social sustainability? Why?
3. What is the role of a sustainability director? Does Hopworks need a sustainability director, and if so, why?
4. What are the pros and cons of reducing the use of organic products and adopting Salmon Safe Certified products? Should Hopworks make this change, and why?
5. How important is Hopworks' sustainability strategy to their success as a business? As they plan future expansion, to what extent should sustainability concerns affect their decisions regarding sourcing, manufacturing/packaging, and distribution?

6. How would you perform cost-benefit analyses on the decisions to hire a full-time sustainability manager, change from organic to Salmon Safe products, and purchase a new automated brewing system or Brewery Management Information System?
7. Craft breweries are allowed to do self-distribution up to a certain production level. What advantages and disadvantages do wholesale distributors bring to a business like Hopworks?
8. Should Hopworks expand their distribution network to other cities and regions? If so, which areas should they initially target to ensure environmentally sustainable delivery and maintain beer freshness and quality?
9. Should Hopworks consider opening a new brewpub to create an additional distribution hub in a new market? Which market might offer the best potential to engage sustainability-minded consumers?

### **Suggested Readings**

- Denning, Steve (2011). "Does Your Firm Need a Chief Sustainability Officer?" Forbes, September 27.
- Gerdeman, Dina (2014). "What Do Chief Sustainability Officers Do?" Forbes, October 8.
- Mickle, Tripp (2014) "Bud Crowded Out by Craft Beer Craze." Wall Street Journal, 23 Nov. 2014. <<http://online.wsj.com/articles/budweiser-ditches-the-clydesdales-for-jay-z-1416784086>>
- Porter, Michael E., and Mark R. Cramer (2011). "Creating Shared Value." Harvard Business Review, January. <<https://hbr.org/2011/01/the-big-idea-creating-shared-value>>
- Pullman, M. (2009) "Green Brewing: Part One." Beer Northwest Magazine, Fall, p.56-60. <<http://archives.pdx.edu/ds/psu/9393>>
- Pullman, M. (2010) "Green Brewing: Part Two." Beer Northwest Magazine, Winter, p. 56-60. <[http://works.bepress.com/madeleine\\_pullman/6/](http://works.bepress.com/madeleine_pullman/6/)>
- Young, Nate (2014) "HUB Sustainability Report 2013." Hopworksbeer.com. <<http://hopworksbeer.com/wp-content/uploads/2014/05/Hopworks-2013-Sustainability-Report.pdf>>

### **Supplemental Resources**

A 12-minute companion video featuring site footage and interviews with Hopworks Founder Christian Ettinger and Sustainability Director Nate Young is available online. The interviews focus on Hopworks' sustainability and brand strategies, specific sustainability initiatives, and the social, economic, and environmental outcomes of those initiatives. This video can be assigned to students to view before class, or shown in class as a prompt for discussion.

The companion video can be viewed at <http://youtu.be/kNuPsN-PK8I>.

A 79-minute interview with Christian Ettinger and New Belgium Brewing Co-Founder Kim Jordan on sustainability in the brewing industry is also available and can be viewed at <http://youtu.be/pNKPXwXxp08>.

## Teaching Plan and Analysis

### Overview

This case can be used to examine the role of a sustainability officer in an organization as well as different types of break-even analysis (both quantitative and conceptual) in sustainability decisions. It would be appropriate for a human resource, strategy, sustainability, marketing or supply chain management class. For a strategy class, it could be used to convey the potential competitive advantage that companies receive from sustainability programs and products. For a marketing class, the case can be used to illustrate potential brand building implications of sustainability certifications and having an on-site location to tell the sustainability story, versus through a distributed product. For a supply chain management class, the case could highlight the role of purchasing certified products, building and expanding production capacity, and effecting social and environmental change in the supply chain. For a human resources class, the case can be used to highlight the role of a sustainability manager and employees in creating and implementing sustainability and brand strategies.

The recommended discussion starts with an evaluation of how Hopworks' emphasis on sustainability, especially through their offering of organic beers, affects branding and perceived quality. How does this affect consumer purchasing behavior, and does it truly offer them a competitive advantage in the market, as Young and Ettinger believe? If so, will that advantage through sustainability be sustained and drive further growth as they move beyond the borders of their current pubs, city, and state to other regions?

This can lead into the role of Hopworks Sustainability Director, Nate Young, versus that of the Founder and CEO, Christian Ettinger. How are these roles different at Hopworks? Should they be different? This can form a basis for discussion on how different companies treat the role of Chief Sustainability Officers (CSOs), and where they typically come from in organizations (PR/marketing versus operations/supply chain). The instructor can probe how the background of a CSO might affect sustainability strategy formation and implementation, and how CSOs might best be developed by an organization.

The interplay of branding and operations as elements of sustainability strategy offer an entry point to discussion of Hopworks' proposed change from organic to Salmon Safe Certification. Moving from organic to Salmon Safe hops would provide lower ingredient costs and avoid possible supply constraints as Hopworks grows. However, the lesser-known and less-environmentally-comprehensive Salmon Safe certification may affect brand loyalty and competitive differentiation. Will current consumers notice, or be concerned about the difference? What about consumers in markets outside Oregon? The possible tradeoffs of the decision offer a rich opportunity for exploring consumer responses to certifications.

Intimately linked to explorations of certifications and consumer preferences is a discussion of Hopworks' story and branding. As the business grows, they are forced to sell more beer outside of the pub than inside, which limits options for sharing Hopworks' sustainability story—itself deeply integrated into the very structure and decorations of

the pub itself. Selling more packaged product and expanding to regions without an existing pub restricts customer visibility into the story. How can Hopworks change their marketing efforts to ensure that their story, and the potential competitive advantage it provides among consumers, carries through in new markets?

Finally, all of these questions and discussion items can be evaluated in light of the limited capital and many competing investment opportunities available to Hopworks. A cost/benefit analysis of these decisions can expose which have clear-cut financial benefits and costs, and which have outcomes that are more nebulous but may be executed for important strategic reasons (values of the firm and owner, reputation and brand building, etc.).

### **1. Prior to Class**

In addition to reading the case and whichever suggested readings are appropriate given the course focus, watching the companion video and reading Hopworks' 2013 sustainability report (both listed above) can help students develop a greater understanding of craft brewing, Hopworks' strategy, and the approach of Founder and CEO Christian Ettinger. The companion video can also be shown at the start of discussion.

- Companion video: <http://youtu.be/kNuPsN-PK8I>
- Sustainability report: <http://hopworksbeer.com/wp-content/uploads/2014/05/Hopworks-2013-Sustainability-Report.pdf>

### **2. Introduction (20 minutes)**

Since many students are already familiar with craft breweries, the instructor could start by asking students what they look for when they choose a beer at the store versus in a pub environment. How much do they know about the sustainability practices of their choice and how did they learn about those? Some famous breweries, such as New Belgium, are explicit in their sustainability marketing and event sponsorship; however, others with highly sustainable practices—Sierra Nevada or Full Sail—are subtler. Also worth exploring is why younger consumers increasingly prefer craft beer over major international brands such as AB InBev (see suggested reading “Bud Crowded Out by Craft Beer Craze”).

The discussion will likely show that core attributes of craft beer brands typically revolve around local sourcing, community engagement, quality ingredients, and often reflect environmental sustainability. Apart from the largest craft brewery, Sam Adams, the top craft breweries are nearly all active in sustainability-related activities, in contrast with larger consolidated and multinational brands.

#### Related Questions:

1. Where do we see the most sustainability claims in particular foods or beverages? Why are some products more susceptible to these claims than others and what are some of the current trends?  
*Responses here will range from the coffee and chocolate to other discretionary items such as ice cream. The instructor might find it interesting to explore why*

*certain food and beverage items have a plethora of claims, who the target market is for these products, and why this is occurring. This can then lead into beer or alcohol in general using sustainability claims. Some might argue that alcohol has created many social problems so pushing sustainability claims seems hypocritical.*

2. For those of you who purchase beer, how do you choose which brands to purchase?

*Student responses can be used to create a list of brand attributes and other key information affecting consumer-purchasing decisions. For example: gluten free, organic certified, local origin, recommendations, sustainability practices, etc.*

3. How much do you know about the sustainability practices of the beer brands you purchase? How did you learn about those practices, and are they more or less important than other attributes of the brand? How do you support the social sustainability aspects of beer?

*This discussion will help students expand on and refine the list of attributes created in the first question. Important to note here is the use of certifications on product labels as a signal of sustainability and/or quality for some consumers, if a student hasn't yet suggested it.*

4. How is your purchasing behavior different in a brewpub vs. a store?

*Answers to this question can help illustrate how Hopworks is better able to control brand messaging and the consumer experience in their pub (for example, through direct conversations with consumers), as well as to more effectively cross-sell other products.*

5. Do you think that Hopworks' approach to sustainability offers it a competitive advantage in the Pacific Northwest? If so, will it offer the same advantage as Hopworks expands nationally?

*This may spur a discussion on differences (or perceived differences) in consumer preferences across different regions. The robust sustainability but limited sustainability branding/marketing of some major competitors in other regions—Sierra Nevada in California, for example—can offer a point of debate. Does this mean that consumers in those areas aren't motivated by those practices, or that those breweries have missed an opportunity to differentiate more effectively?*

### **3. Sustainability Managers (10 Minutes)**

The question of whether Hopworks' sustainability strategy can deliver a sustained competitive advantage is an important lead-in to discussing the role and responsibilities of Sustainability Director Nate Young, especially given the commitment of Hopworks Founder and CEO Christian Ettinger to sustainable practices. As sustainability becomes an embedded practice and source of value for a growing number of businesses, the importance of the role may shift from one of developing and implementing strategy to education and coordination, a sign of the growing maturity of the field. Michael Porter's



article on “shared value” can provide useful background for this discussion as a pre-class reading.

Related Questions:

1. Should Hopworks retain a full-time sustainability director, given the attention the CEO already pays to sustainable practices?  
*Although Hopworks’ sustainability strategy has been driven by Christian Ettinger, retaining a sustainability director allowed them to better track and report existing sustainability approaches, as well as to perform more rigorous cost/benefit analyses of proposed practices. If sustainability offers a competitive advantage, or at least remains a major strategic focus, retaining a full-time sustainability director could enable them to build on this advantage while freeing Ettinger to focus on business strategy and growth.*
2. Do you think more firms should hire a sustainability director, or is that a function best spread across existing roles?  
*In the case, Ettinger talks about embedding a sustainable mindset in staff beginning with the hiring process. In a firm with a culture of sustainability driven from the top, where each department is responsible for different aspects of that strategy (for example, operations staff may create efficiency strategies, marketing staff can produce sustainability or CSR reports, sourcing staff may search for environmentally and socially responsible suppliers, etc.), is a sustainability director redundant? Important to note here is the sustainability director’s implied role in educating employees, communicating across departments, and assisting in coordinated implementation of complex approaches that a single individual or department may not be able to complete alone.*
3. What type of education and experience is important in the role of sustainability director?  
*Building on the previous question, this can help illuminate the need for a background in quantitative financial analysis to ensure accurate cost/benefit reviews and payback period projections, experience in brand strategy to ensure strategic fit, and an ability to effectively manage cross-disciplinary teams and major projects to ensure successful implementation of sustainability initiatives.*

**4. Distribution (15 minutes)**

For those instructors wishing to cover distribution issues, this case offers an opportunity to explore some of the challenges of distribution in a highly competitive industry.

1. Craft breweries are allowed to do self-distribution up to a certain production level. What advantages and disadvantages do wholesale distributors bring to a business like Hopworks?  
*The table below summarizes some of the pros and cons of self-distribution. It’s important for the students to understand that self-distribution is a great way to build a brand and get the sustainability story out initially. But, as the company grows beyond a local region, self-distribution can become completely untenable.*

Pros	Cons
<ul style="list-style-type: none"> <li>➤ Selling your “own” product – all focus on your company</li> <li>➤ Personal ties with the local retail community and consumers</li> <li>➤ No middle tier – great margins</li> <li>➤ Pricing control</li> <li>➤ Better management of out-of-stock potential at retail</li> <li>➤ Managed execution of specific targeted accounts</li> <li>➤ Control of code dates</li> <li>➤ Knowledge of how a wholesaler works and their challenges</li> </ul>	<ul style="list-style-type: none"> <li>➤ Diversion from brewing beer and managing the plant – time</li> <li>➤ You are a brewer – not a wholesaler</li> <li>➤ Working with the retail trade – complaint calls</li> <li>➤ Insurance issues/workers compensation</li> <li>➤ Hiring sales people – managing all sales systems – 24/7</li> <li>➤ Overseeing the entire sales logistics</li> <li>➤ Lack of critical mass in volume – you can lose money, and lots of it</li> </ul>

2. Should Hopworks expand their distribution network to other cities and regions? If so, which areas should they initially target to ensure environmentally sustainable delivery and maintain beer freshness and quality?

*Similar to some of the points shown in the table as cons, eventually most craft breweries have to use a wholesaler and expand their distribution network. While some breweries have successfully maintained their sustainability story as they move into national brands (Sierra Nevada and New Belgium), this effort requires an enormous marketing effort and a constant refreshing of the story with new activities. The most likely candidate locations for distribution include the western U.S. cities located in Washington, Northern California, Idaho, and Colorado. British Columbia has cities such as Vancouver with similar sustainability values. But, some of these other cities have their own local and sustainable brands so this could be formidable competition.*

### 5. Certifications and Marketing Sustainability (15 Minutes)

According to Hartman Group (“Label Profusion,” 10 Oct. 2007), “consumers increasingly want to know the truth behind production, source of ingredients, quality of ingredients, or signals of ethical production.” Third-party certifications are an important signaling mechanism for the type and reliability of this information, but only if the consumer recognizes and ascribes validity to the certification. Without certification, or with unknown certifications, “greenwashing” may be suspected. This is an important marketing consideration for Hopworks as they consider switching from the well-known organic label to Salmon Safe certification among some of their hops suppliers.

#### Related Questions:

1. How do on-site versus packaged good companies typically convey their sustainability efforts to the marketplace?



*Student responses can be used to create a pair of lists, with different approaches for each channel. The companion video demonstrates the variety of communication methods that Hopworks uses to convey sustainability efforts at their owned pub: building design and decoration, signs, menu information, staff training, certifications, product label designs, product names, and links to their website. On packaged goods, sustainability is typically conveyed through label information, including certification logos, brief descriptions, and product names.*

2. Which certification program might hold the most appeal for consumers in the pub or packaged goods environment?

*Students should recognize that organic certification is more common in retail environments and, outside of some Pacific Northwest consumers, many will not know what Salmon Safe means. In the pub, there is an opportunity to educate the consumer on menus or through events, but packaging and labels have limited “real estate” for conveying this information.*

3. How can Hopworks effectively share its story and sustainable practices with consumers who only encounter their packaged goods in a retail environment?

*Students should be encouraged to come up with different approaches and discuss relative effectiveness of each (for example, label design, certifications, URLs on packaging, QR codes, etc.). Ettinger had explored a new beer label, designed to resemble the nutrition information boxes on the back of packaged foods, that listed each of Hopworks’ most important sustainability practices and key metrics.*

## **6. Cost Benefit Analysis (30 Minutes)**

New investments must be selected on the basis of a careful cost/benefit analysis that factors in desired growth, current and potential brand benefits, and their sustainability strategy. In addition, certain investments may have a clear financial benefit, but a negative impact on reputation and brand strength, complicating the analysis. Students should be encouraged to consider both tangible and intangible factors in their analysis.

Note: the cost of capital for NPV calculations is estimated using the US prime rate (3.25%) + 2.25% for a six-year period, and prime plus 2.75% for a ten-year period, the maximum spreads allowed for SBA loans.<sup>1</sup>

Listed below is a set of cost/benefit analyses for different potential investments. Student groups can be assigned to perform one analysis each in class or as an assignment, and then present their findings to the class, or the instructor can simply walk the entire class through each analysis.

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<sup>1</sup> <https://www.sba.gov/content/7a-loan-amounts-fees-interest-rates>

1. Before assignment or discussion, share the following table with students:

<b>Exhibit 1: Hopworks Beer Production</b>	
Hopworks Annual Production:	12,500 BBL
Production per Batch:	20 BBL (assuming two shifts per day with two batches each at rate of 80 BBL/day [12,500 BBL/156 brew-days in a year])
Production Cost w/o Labor:	\$60 / BBL
Cellaring and Kegging Labor Cost:	\$10 / BBL
Canning and Bottling Labor Cost:	\$20 / BBL
Brewing Labor Cost:	\$300 / shift (two batches)
Topline Revenue:	\$325 / BBL
Conversion:	1 BBL (barrel) = 1.17 hectoliters = 117 liters = 247 pints

Note: labor costs per batch are fixed regardless of the batch size, so moving to a larger brewing system enables greater economies of scale. However, this is not true for cellaring, kegging, and packaging, which are driven by variable cost/BBL.

2. Walk students through the available investment options and free cash available to invest by writing the following table on the board. It can be assumed that Hopworks has \$100K/quarter available to invest from their free cash flow, and may have access to bank loans at current rates.

<b>Exhibit 2: Potential Investments</b>		
<b>Investment</b>	<b>Cost</b>	<b>Potential Savings or Revenue</b>
Brewery Management Software	Startup cost: \$25K for training, conversion, etc. Ongoing cost: \$1000/month	Labor savings of \$1/BBL Sales & inventory accuracy improvement savings of \$2/BBL
Automated Brewing System - German	Startup cost: \$500K	Assumed reduction in shift labor by 50%
Automated Brewing System - US	20% less than German system	Assumed reduction in shift labor by 50%
New Brewpub	Startup cost: \$2 million	Topline Revenue (exhibit 1) for the same amount of on-site BBLs. Assume 25% of 12,500 per the Brewers Association description. Estimate Food at 25% of beer revenue.

3. Brewery Management Software: this software will save roughly \$3/BBL, or a total of \$37,500/year at current rates of production (12,500 BBL \* \$3). At a total startup and first year cost of \$37K (\$25K setup + \$12,000 yearly fees), the payback period is one year, well within Hopworks' target of six years. After that, the software will generate a net yearly savings of \$25,500. The NPV for a six-year period is roughly \$102K, and \$163K over a ten-year period.
4. Automated Brewing System – German: at an estimated cost of \$500K and an assumed reduction in labor costs of 50%/shift, the brewing system would save \$78K/year. Calculation: assuming 312 shifts a year (two/day and 156 brewing days; see calculation in Exhibit 1), and a current cost of \$300 in labor per shift, the current cost of shift labor is  $312 * \$300 = \$93.6K$ , but with the system will be only  $\$93.6K * .50 = \$46.8K$ . This gives a payback period of 10.7 years, over Hopworks target. The US system with a 20% lower price tag (\$400K) would have a faster payback period of 8.5 years. Students should consider the pros and cons of the German vs. US systems that go beyond these break-even costs.

#### Related Questions:

1. Why do you think Hopworks uses a seven-year payback period? Should they use NPV instead? If so, what time period should they use?  
*The difference in NPVs over a seven-year vs. a ten-year period for the automated brewing system provides an interesting example of how the time period used can affect decision-making processes. Does the brewing industry*

*change quickly enough for Hopworks to rely on a shorter timeframe? As a privately-owned business, could pursuing a longer-term vision (often out of reach for publicly-traded firms due to shareholder pressure) provide a competitive advantage?*

2. How would you perform a cost-benefit analysis on the role of sustainability director?

*Ettinger seems to feel that the sustainability director has paid for his wages with “low-hanging fruit” (for example, energy and water efficiency measures) but now that those savings have been realized, he wants to cut back the job to a few hours a week. Students may be prompted to discuss whether this an appropriate way to evaluate the value of a sustainability manager, in a manner similar to a marketing manager evaluated by sales value, or whether intangible benefits, such as brand value and staff education, should be included.*

3. What’s the cost benefit comparison of Certified Organic vs. Salmon Safe Certified ingredients?

*The consumer wants a certification standard that aligns with their values and is easy to understand; the certification must have some “brand recognition.” Given the regional and niche nature of Salmon Safe, the brand benefits are dubious. Hopworks may be able to purchase certified ingredients at larger volumes and lower prices, and avoid supply constraints, but it might make more sense to pursue a strategy that supported expanded organic hops production in the US.*

## **7. Conclusion and Wrap Up (10 minutes):**

The wrap-up of the case could address the importance of understanding the business case issues for sustainability. Most companies would expect new projects to go under financial analysis regardless of whether they are labeled sustainability or not. Students should be able to look at not only the cost savings of various initiatives but the potential reputational and brand effects that are gained by certain more difficult to quantify projects and hires (such as a sustainability director or certification schemes). The case emphasizes the need for students to quantify the costs and benefits of sustainability projects of all kinds including hiring a sustainability manager.

### **Whiteboard Plan**

1. The top left should be for a list of attributes consumers consider when making a beer purchasing decision.
2. The top right should be used for different methods of communicating sustainable practices in on-site sales (for example, an owned brewpub) vs. through packaged goods at retail.
3. The bottom half of the board should be used to walk students through the cost/benefit analysis of different potential investments.