

I PRO 497-350: Environmental Wood Reclamation via Creative Arts & Crafts Products (An Entrepreneurial I PRO Project)

Advisors

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Product Design/Development Team

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1.0 Abstract

The project aims to convert the urban wood waste into an environmentally friendly, marketable product. The primary focus this semester will be to create visibility for urban wood through the connection of products made from urban wood to the end users. The primary drawback for urban wood is the perception of “no value” attached to the wood, which results in an epidemic of wasted wood, since nobody wants to use it. This project will research and organize possible production methods and uses for urban wood, which could create a business opportunity and jump-start the urban wood demand/market in Chicago.

2.0 Background

IPRO 350 is a continuing project sponsored by the Morton Arboretum, Lisle, Illinois in consultation with Nik Rokop of the Jules F. Knapp Entrepreneurship Center, Prof. John Stoner of the Business Dept., and Prof. Paul Pettigrew of the Architecture Dept. The purpose of this project is to construct a business around selling goods produced from wood that will otherwise be wasted. This wood is partially generated as a result of the infestation of ash trees by Emerald Ash Borer (EAB). In addition to the ash trees affected by the EAB, there are also trees that have been knocked down from storms, old wood from demolition sites, and tree removal services. When these trees are to be cut and destroyed, society suffers a double loss: (1) The loss of a carbon dioxide consuming, shade producing and habitat providing plant; and (2) The destruction of these trees which are often burned, thus introducing additional carbon dioxide into the environment.

The project is to look into ways of developing a social entrepreneurship opportunity from this problem, by taking a net societal liability and providing an offsetting societal benefit by: (a) producing goods accepted by the market place; and

(b) providing an educational opportunity and environmental sensitivity/insight for the next generation of professionals and business leaders.

The focus of last semester's group was initially on ash wood only, until the city of Chicago decided to treat trees with infested with an inoculation method called "tri-age" instead of cutting down trees. At that point the focus shifted to include other urban woods that face similar problems due to infestation or other destructive forces that include but not limited to nature. Since the focus shifted from one particular type of wood to all urban wood (wood/trees found in any urban area), the group then developed a business model that utilized the concept of vertical integration (that is, involving itself in all the supply chain processes, starting from identifying and cutting down infested trees to the final end product). And the end product emphasized last semester was urban lumber.

This semester we have been able to identify that selling urban lumber as a business or product is certainly a dead end because currently the market is nonexistent and that is why wholesalers and retailers/woodworkers do not want to carry large inventories of these lumber (even if the supply exist). We believe the drive for this business would be what can be made out of the urban wood, which would generate a demand amongst customers, and in turn encourage the customers to ask the retailer/woodworker for the product. Seeing demand from the customers, retailers/woodworkers would order more urban wood from the wholesalers and thus demand for the lumber is then pulled through the marketing channel. So this semester's approach is to find out what consumers of urban wood want and how we can add value to it.

3.0 Objectives

3.1 Create as large of a market as possible for urban wood

3.1.1 Individuals/Green Consumers

3.1.2 Government

3.1.3 Green Product Developers/Designers

3.1.4 Big Businesses, wood suppliers

3.2 Create a network for urban wood providers and consumers

3.2.1 Website

- 3.2.2 Connect : Wood → Sawyers → Manufacturers → Retailers → Consumers
- 3.2.3 Connect: Scrap Wood → Manufacturers → Retailers → Consumers
- 3.2.4 Listing for raw wood vs. finished wood

3.3 Identify possible sources of urban wood

- 3.3.1 Tree Removal Services
- 3.3.2 Lumberjacks
- 3.3.3 Arboretums/Forests
- 3.3.4 Natural Disasters
- 3.3.5 Cities, governments
- 3.3.6 Demolition sites
- 3.3.7 Scrappers

3.4 Develop a product for initial advertisement

- 3.4.1 Chair
- 3.4.2 Coasters
- 3.4.3 Napkin holders
- 3.4.4 Plates
- 3.4.5 Canoe paddle

4.0 Methodology (We expect this project to take us three months)

- ◆ Create a market that will request an ever growing demand for urban wood
 - publish articles
 - display the products in stores
 - get big companies involved and interested
 - use LEED points
- ◆ Sources
 - contact various urban wood suppliers
 - find out price wood is obtainable at

- find out how wood can be transported
- ◆ Network
 - create a foundation for the website
 - get a domain for website
 - set up network for communication between parties
 - establish a client base for the site
- ◆ Product Development
 - acquire materials
 - create a product (or several)
 - design/develop
 - prototyping
 - constructing finished product

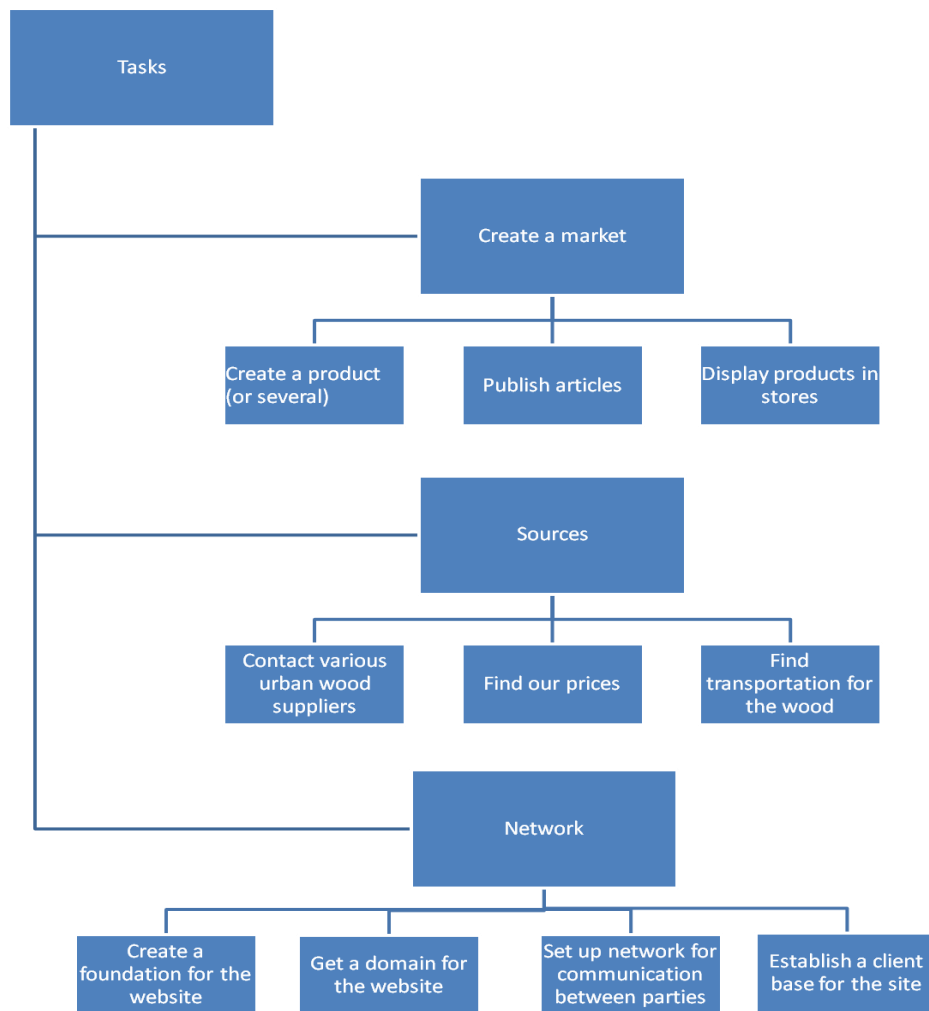


Figure 1.0: Outline of team’s tasks and ways to achieve them

5.0 Estimated Project Budget

- Chairs
- → \$200
- Napkin Holders
- → \$150
- IPRO Day Expenses
- → \$200
- Domain and Servers
- → \$50
- Field Trip
- → \$150
- TOTAL: \$750**

6.0 Team Structure and Assignments

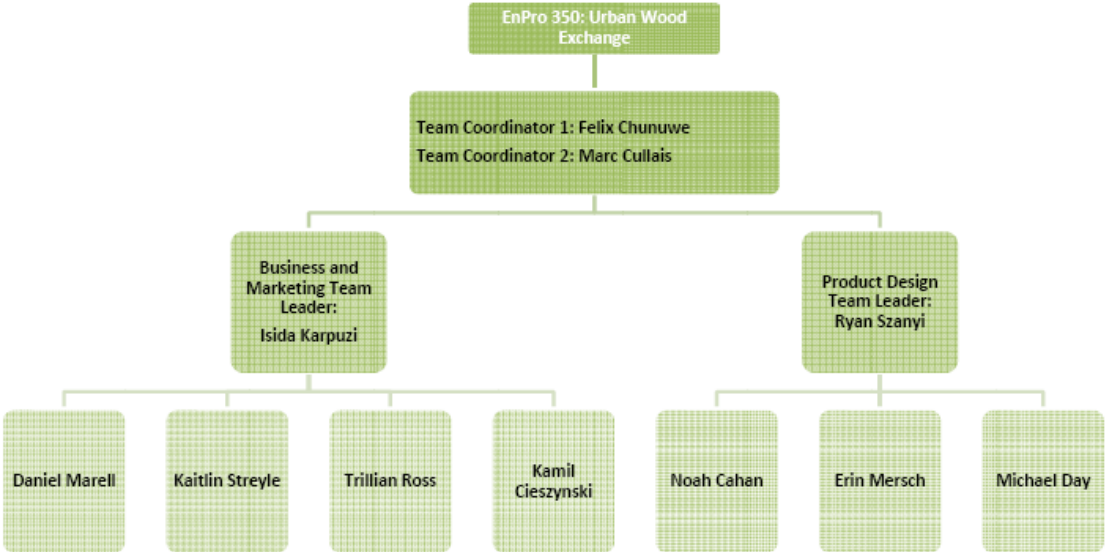


Figure 2.0: Team Structure

Name	Major/Minor, Year	Skills and Strengths	Experience and Academic Interest	Team	Assignments
Felix Chuunwe	Mechanical Engineering w/ minor in Management, 4	Microsoft Office Suite, AutoCad, Solid Edge, Organizing and Managing	Currently working with an engineering design group, and interested in business	EnPro Co-ordinator, and Business/Marketing	Co-ordinate group meetings, and develop elements of marketing plan
Trillian Ross	Biology, 4	Writing and Editing Skills, and Conducting Research	A bit of ecological and environmental science knowledge	Business/Marketing	Develop the promotion strategy for the marketing plan
Ryan Szanyi	Landscape Architecture & City and Regional Planning, 5	Design Development/Prototyping, Woodshop, Adobe Photoshop and Illustrator	Leadership experience	Product design/development Co-ordinator	Focus on the design and manufacturing of mass produced chairs
Isida Karpuzi	Architecture, 5	Presentation and Rendering Software, Conducting Research, and Organizing	Computer rendering, Preservation Society, Previous Team Leader Experience	Business/Marketing Co-ordinator	Co-ordinate team meetings, LEED certification research, and SWOT Analysis
Kamil Cieszynski	Business Administration, 4	Research Dataming, Writing Business Plan, and Powerpoint	Interested in entrepreneurship	Business/Marketing	Review current business plan and develop a budget analysis
Daniel Marell	Chemistry w/ minor in Programming Languages, 4	Microsoft Office Applications, Programming (C++, Java, HTML, Javascript, PHP)	Conducting chemical research	Business/Marketing	Update business contacts, and develop the distribution strategy of the marketing plan
Marc Coullais	Architecture w/ minor in Landscape Architecture, 4	Microsoft Office Applications, CAD, Adobe CS3, Woodworking, and a Comprehensivist	Good with people and meeting their needs	EnPro Co-ordinator, and Product design/development	Co-ordinate group meetings, and production of desk for Oprah/ JIT President canoe paddles
Michael Day	Architecture, 5	Skilled Knowledge of the wood shop, Adobe Illustrator and Photoshop	Work in model shop	Product design/development	Focus on the design and manufacturing of plates, bowls and other kitchen ware
Erin Mersch	Business Administration w/ minor in Construction Mgt. Architecture, 5	Focus, Ability to brainstorm ideas, and Open to new ideas	Group's minute taker	Product design/development	Generate ideas of how to create product awareness/education
Kaitlin Streyle	Architecture, 5	Microsoft Office Applications, CAD, Adobe Photoshop and Illustrator	Model Shop, Marketing research	Business/Marketing	Focus on the sources of obtaining wood
Noah Cahlan	Architecture w/ minor in Urban Studies, 4	Microsoft Office Applications, Visual and Artistic Understanding, Communications and Tectonic Skills	Wood working	Product design/development	

Figure 3.0: Ind

