

PHASE 2 ~ CONCEPTUAL DESIGN

Deliverable 8 ~ Competitive Landscape

INSTRUCTIONS. Perform a competitive landscape assessment for your design project. Your assessment is due electronically and you should add it to your design history file as well. Your document should have the filename convention `Team-yournumber_del8_competitive_landscape`.

Purpose

When you begin a design project, a common activity to understand what others are doing to solve the same or similar problems is a competitive landscape assessment. Designing without first understanding what others are doing in the same competitive landscape means you'll miss out on chances to leverage others' experiences, and you might not be cognizant of possible threats to your design. Your findings should help you generate several design alternatives while identifying opportunities for differentiation from your competitors.

Why consider intellectual property (IP) in conceptual design?

IP generated in the course of executing a design project can add significant value beyond the sale price of the products, system, or service involved. Products, systems or methods for creating or using a product may also potentially infringe the IP rights of others. As a result, you must consider "freedom to operate" issues before resources are committed to a design project, to minimize the likelihood others' IP rights may be enforced against you or any resulting losses. If you know the IP landscape (the type and degree of IP protection held by others) of your project at an early stage, you can plot a course around the IP barriers or negotiate for permission to use the IP.

Critical Information

Competitive landscape intelligence is essential to assist with the decision of what actual product to develop and what components are suitable to be included in your product. Carefully analyzing the competitive landscape will enable you to:

1. Find out what products or components of a product have already been created by you, your competitors, or other companies
2. Avoid wasting resources in re-developing existing products
3. Monitor your competitor's activities
4. Identify future trends and gaps in the market
5. Make informed decisions on what product should be developed and will likely be a commercial success
6. Reduce risks of IP infringement

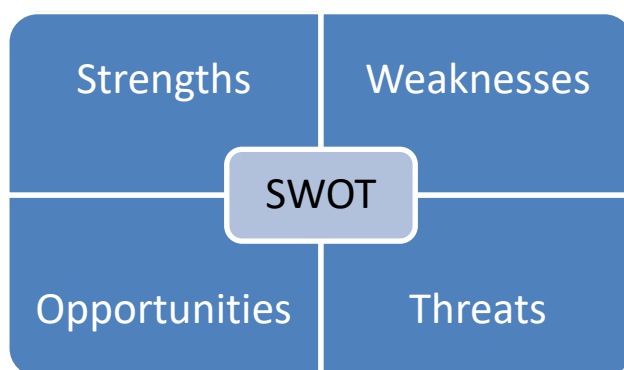
Format of the Competitive Landscape

Assessing the competitive landscape involves obtaining a thorough knowledge of the relevant market, the demands of that market, and knowledge of the competitors' existing products and direction. In addition, you must determine the

state-of-the-art developments in your project's field by reviewing scientific and trade journals as well as IP information resources. You should use the following steps in creating your competitive landscape assessment.

- Identify Competitors. Determine who is doing what you do (your competitors) using personal interviews and Google, literature, and patent searches.
- Analyze the Competition. Learn everything you can about the products and the IP.
- Determine Competitor Strengths and Weaknesses. Objectively and eloquently point out positive and negative aspects or lessons learned from your competitors' products and IP.
- Identify Opportunities: Competitive Advantages. List opportunities for competitors. Emphasize why your design is better and how it stands out from the competition by overcoming their weaknesses.
- Recognize Threats: Competitive Disadvantages. List threats to competitors. Recognize threats and adversity you must overcome from the competition.

A SWOT (Strengths, Weaknesses, Opportunities, and Threats) table is one way to organize your findings. For example:



Note: the SWOT analyses of competitors can be directly used in your project plan:

Tasks for Project Plan	Strengths	Weaknesses
Opportunities	<i>How do we use these strengths to take advantage of these opportunities?</i>	<i>How do we overcome the weaknesses that prevent us taking advantage of these opportunities?</i>
Threats	<i>How do we use our strengths to reduce the likelihood and impact of these threats?</i>	<i>How do we address the weaknesses that will make these threats a reality?</i>