IncreMentalAdvantage

Fair Valuation of ABC AG's Longlife and Dualcycle Patent Families

Conclusion of the Fair Valuation of ABC AG's Longlife and Dualcycle Patent Families is CHF 7.5 Million as of November 22, 2013

Report Date: November 22, 2013

The opinion of IncreMental Advantage, LLC in this Report is valid only for the stated purpose and as of the date of the Valuation.

David Wanetick
Managing Director
IncreMental Advantage, LLC
4390 Route 1
Suite 214
Princeton, NJ 08540

Table of Contents

Exhibits

Appendices

November 22, 2013

Mr. Dieter Donnersweig
Donnersweig Patentwalte
Hirschstrasse 4
Postfach CH-8034
Berne Switzerland

DESCRIPTION OF THE ASSIGNMENT

IncreMental Advantage, LLC has been retained by ABC AG ("ABC") to provide a Valuation of the following patent families:

- The Longlife Patent Family which refers to those patents, patent applications, and envisioned patent applications that are entitled "Textile Substrate with Water and Water Vapo(u)r Draining Properties."

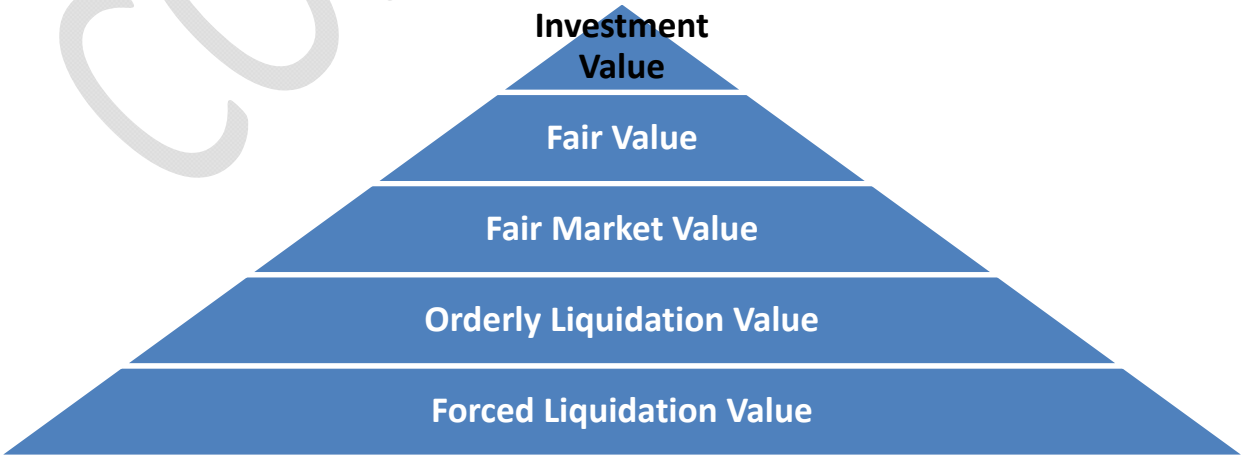
- The Dualcycle Patent Family which refers to those patents, patent applications, and envisioned patent applications that are entitled "Textile Substrate Made of Several Different Disposable and/or Usable Materials, Use of Such a Textile Substrate, and Method for Reprocessing Such a Textile Substrate."

This Valuation assignment has been commissioned for purposes of determining the Fair Value of the aforementioned patent families as of November 22, 2013. The date of this Valuation Report is November 22, 2013.

SELECTED STANDARDS OF VALUATION

As illustrated below, there are a multitude of Standards of Valuation, each of which applies to specific situations.

Hierarchy of Standards of Valuation



As it has been related to me, ABC wishes to learn the Value of the subject patent families for internal corporate purposes. These purposes may include issues relating to capital allocation decisions; internal accounting; and, executive compensation. This Valuation could also later be used for external purposes in terms of raising capital to support the further development of the technologies addressed by the subject Patent Families as well as in negotiating the licensing or sales of the subject Patent Families. Thus, given the primary reasons behind the commissioning of this Patent Valuation, Fair Value is the most appropriate Standard of Valuation for assessing the subject Patent Families.

DEFINITIONS OF STANDARDS OF VALUATION

Forced Liquidation Value "An opinion of the gross amount, expressed in terms of money, that typically could be realized from a properly advertised and conducted public auction, with the seller being compelled to sell with a sense of immediacy on an as-is, where-is basis, as of a specific date."[1]

Orderly Liquidation Value "An opinion of the gross amount, expressed in terms of money, that typically could be realized from a liquidation sale, given a reasonable period of time to find a purchaser (or purchasers), with the seller being compelled to sell on an as-is, where-is basis, as of a specific date."[2]

Fair Market Value "The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."[3]

Fair Value "…the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in the market which would be the most advantageous for the asset or liability."[4] Fair Value can be more easily understood as Fair Market Value before discounts (primarily for lack of control and lack of marketability). Also, Fair Value is used to determine the value owed to a shareholder of a company that is being squeezed out.

Investment Value Investment value is the value of an asset to the owner or a prospective owner for individual investment or operational objectives.[5] Investment Value is also known as Strategic Value.

[1] Definitions of Value Relating to MTS Assets (http://www.appraisers.org/MTSHome/DefinitionsOfValue.aspx, number 10), the American Society of Appraisers

[2] Definitions of Value Relating to MTS Assets (http://www.appraisers.org/MTSHome/DefinitionsOfValue.aspx, number 9) American Society of Appraisers

[3] This definition is included in the International Glossary of Business Valuation Terms and has been adopted by American Institute of Certified Public Accountants, American Society of Appraisers, National Association of Certified Valuation Analysts, The Canadian Institute of Chartered Business Valuators, and The Institute of Business Appraisers.

[4] Financial Accounting Standards Board Accounting Standards Codification Topic 820 (ASC 820) definition of Fair Value.

[5] International Valuation Standards 2011

SUMMARY DESCRIPTION OF THE ASSETS VALUED

The scope of this Valuation Report is limited to the aforementioned Patent Families. Other assets owned or controlled by ABC—such as trademarks, service marks, copyrights, know-how, trade secrets, customer lists, goodwill, plant, property and equipment—were not considered as part of this Valuation. Thus, the value of the technologies underlying the subject patent families and the enterprise value of ABC could substantially exceed the value of the subject Patent Families.

VALUATION METHODOLOGIES

In preparing this Valuation Report, I assessed the Longlife patent family based on the Market Method and the Relief from Royalty / Income Method. I assessed the Dualcycle patent family based on the Relief from Royalty / Income Method.

In reviewing the aforementioned patent families, I considered issues such as point of novelty analysis; prior art analysis; priority dates; claims analysis; drawings analysis; chain of title analysis; quality of prosecuting lawyers; quality of patent examiner (where that was possible); description analysis; abstract analysis; and, title analysis.

VALUATION CONCLUSION

The standard practice in the valuation profession is to present Conclusions of Value as of a specified date based on what is known or knowable. For the Longlife patent family, both the Market Method and Relief from Royalty / Income Method produced valuations of CHF 3.2 million. Thus, my Conclusion of Fair Value for the Longlife patent family as of November 22, 2013 is CHF 3.2 million.

Gessner Patents
Valuation of the Longlife Patent Family
Summary of Value
November 22, 2013

Market Method	**CHF 3.2 Million**
Income Method	
Automobiles	2,920,641
Furniture	238,134
Airplanes	35,506
Buses, Trains, Ships	14,206
Total NPV of Longlife	3,208,487
Total NPV of Longlife (Rounded)	**CHF 3.2 Million**

The Relief from Royalty / Income Method indicates that the Dualcycle patent family has a Fair Value of CHF 4.3 million as of November 22, 2013. Below are the components of the value drivers for the Dualcycle patent family.

Gessner Patents Valuation of the Dualcycle Patent Family Summary of Value November 22, 2013	
Automobiles	1,281,162
Furniture	1,295,293
Airplanes	8,104
Buses, Trains, Ships	124,745
Carpets	423,050
Wheelchairs	68,023
Wound Care	277,834
Camouflage Uniforms	178,396
Other	400,000
Lock	201,417
Total NPV of Dualcycle	4,258,024
Total NPV of Dualcycle (Rounded)	**CHF 4,300,000**

I am not assigning any patent portfolio premium to the combined valuation of the Longlife and Dualcycle patent families as there are not enough patent families to issue a patent portfolio premium. Also, while there may be some efficiencies in producing both Longlife and Dualcycle textiles together, the envisioned licensees are extremely disparate in terms of their anticipated fields of use and geographic regions. Thus, few licensees would avail themselves of any such efficiencies.

Thus, my Conclusion of Fair Valuation for the Longlife and Dualcycle patent families is CHF 7.5 million as of November 22, 2013.

USE OF THIS REPORT

This report was prepared only for the purpose of determining the Fair Value of the aforementioned Longlife and Dualcycle patent families. This Valuation Report is as of November 22, 2013. No other use of this report—or assertions, opinions or conclusions contained therein—is permitted.

I remain,

David Wanetick
Managing Director
IncreMental Advantage, LLC

OVERVIEW OF ABC AG

ABC AG is a holding company that was founded in 1841. Today, the ABC holding companies are engaged in business endeavors including textiles, finance, retail and property management. The Company is headquartered on Lake Zurich, in the town of Wadenswil, Switzerland.

OVERVIEW OF THE GERMANIC TEXTILE INDUSTRY

Switzerland and the other Germanic countries are the beneficiaries of a long tradition of textile manufacturing. One indicia of the extensive history of the Swiss textile industry lies in the Swiss Textile Federation having its roots dating back to the late 19th century. Also, the Federation of Swiss Cotton Spinners was founded in 1874 and over a period of almost 100 years a growing number of federations from the textile and garments industry joined the Swiss Cotton Spinners.[6]

(Michael Porter, Professor at the Harvard Business School and author of Competitive Advantage of Nations, wrote extensively about the benefits associated with industries clustering in small geographic areas. Some of Professor Porter's research focused on Swiss watch makers. It seems to stand to reason that if Swiss watch makers reap advantages of clustering, so too should Swiss textile manufacturers.)

Textile companies located on the Zurich River, such as ABC, benefit from the proximity to water as textile companies are water-intensive manufacturers. (Water is used to power textile production, rinse dyes, and for less expensive transport of final product.) Also, Swiss textile companies benefit from a skilled workforce which is partly due to Switzerland's notably well-honed apprenticeship programs. Accordingly, labor productivity in the Swiss textile and garments industry has improved by almost 50% since the year 2000.[7]

German companies are global leaders in the technical textiles segment: their market share is around 45%. The demand for (technical) textiles is being stimulated by long-term global trends. These include the rising population; higher disposable income and increasing industrialization, particularly in the developing countries; growing mobility requirements; the trend to increasing environmental protection and energy efficiency; and rising health spending. The production of technical textiles in Germany has grown by 40% in real terms since the mid-1990s. Close connections with textile research institutes are one important reason for this growth. Local production also benefits because many of the customer industries produce in Germany.

According to industry association figures, technical textiles account for more than 50% of the turnover of the German textile industry. Ten years ago, according to the IVGT (the industry association for finishing, yarns, fabric and technical textiles in India), technical textiles only accounted for about one-third of turnover.

[6] http://www.swisstextiles.ch/cms/upload/dokumente/pr/verband/TVS_Imagebrs_EN_02.pdf
[7] http://www.swisstextiles.ch/cms/upload/dokumente/pr/verband/JB-Annual_report_TVS_2012.pdf

ANALYSIS OF THE LONGLIFE PATENT FAMILY

Below is my analysis of the Longlife patent family. This analysis is reflected in discounts applied in the Income Method of Patent Valuation as well as in the Patent-Specific Discount Analysis. (For the later, please see page 23.) To summarize, I believe the Longlife patent applications were very well drafted, there is nominal prior art risk and the ability to detect infringement is high. I am not aware of anything in the heretofore prosecution history that would deter potential licensees.

Summary of Patent Family The Longlife patent family is entitled "Textile Substrate with Water and Water Vapo(u)r Draining Properties." This patent application (other than in the US) has a priority date of February 10, 2011 and was filed under the Patent Cooperation Treaty on February 11, 2012.

This patent application was filed with the United States Patent and Trademark Office on April 12, 2012 and was published by that office on October 17, 2013. A Notice of Allowance was issued on July 25, 2013. However, a Petition to Withdraw the Application from Issue and a Request for Continued Examination were filed with the USPTO on November 6, 2013. The purpose of this filing was to clarify a host of grammatical / semantic issues and to indicate that the US patent application does not claim priority to any other application. The related amendments do not affect the scope of the claims and the amended specification contained no new matter.

Patent Subject Matter The invention behind the Longlife patent family is to offer outstanding capacity to absorb and wick water and water vapor. The invention wicks away moisture from surfaces of textiles and transports such moisture into the interior of the textile substrate. This is accomplished by using a combination of regenerated cellulose fibers (which absorb moisture more quickly than woolen fibers) and woolen fibers (which absorb relatively large amounts of water vapor).

The utility of this invention is expected to manifest itself in "air-conditioned" seating. It is held that the invention is of relatively simple construction and can be produced cost-effectively.

Impact of Novelty Analysis The Longlife patent family scores highly in terms of impact of novelty. Longlife offers enhancements over current seating textiles in terms of cooling, moisture management, heat transfer, and heat reflection. Longlife responds to changes in body temperature and continually balances thermal fluctuations. Longlife keeps seat surfaces dry even after prolonged seating periods.

While the technical details of Longlife's performance are known to ABC intimately well, they do not need to be restated in this report. However, it is important to point out a few highlights. First, at least CHF 500,000 has been invested in subjecting the technology behind Longlife (together with Dualcycle) to a rigorous battery of testing. This testing has been conducted by EMPA (the Swiss Federal Testing Agency); at the behest of Volkswagen by Sebastian Borner; and by the Sachsisiches Textil Forschungs Institut e.V. Such testing included micro-computer tomography to determine the humidity transport as well as other testing to determine the extent of abrasion resistance and fire retardation.

Below is a summary of some of Longlife's technical advantages:

- Composition - 55% WV 30% red.LenzingFR 15% PA
- Width - 135cm, useable width 133cm
- Weight - 705g/qm, tolerance +/–3%
- Abrasion resistance - ISO 12947-2 >60'000 MD rubs (1.thread break)

- Pilling values ISO12945-2 Pilling score 4-5 (good)
- Colorfastness to crocking ISO 105/X12 Dry score 4 Wet score 4
- Colorfastness to perspiration - ISO 105/E04 Alkaline score 4 Acid score 4
- Lightfastness FAKRA 3 ISO 105/B06 Score 4
- Fire standards meets automotive standards
- Care is accomplished with spot-clean only using a moist sponge, or vacuum or gentle brushing

A few compelling data-points for laymen to understand about Longlife include:

- Longlife reduces heartbeats per minute. According to a sample set of 5 people, sitting and working on a Longlife chair for sixty minutes in a regular office environment reduces the human heartbeat by 6.7%. This is because the body needs to produce less energy to cool itself.

- The materials and dyes used reflect heat particularly well, even with dark colors. For instance, in terms of thermal radiation, Longlife seating in cars remains at 40 degrees Celsius after being subjected to sunlight for one minute while the temperature of standard fabrics in the same setting starts at 60 degrees Celsius and rises from there.

Design-Around Risk Due to the large number of claims—and the breadth of those claims--listed on the Longlife patent, I do not think that infringers could easily design-around the specific claims. However, research into regulating body temperatures in ways other than through seating is in full throttle. For instance, four engineering students at the Massachusetts Institute of Technology developed Wristify which is a prototype wearable device that leverages the physical phenomenon known as the *Peltier effect* to reduce body temperature.[8] Also, Nike's apparel technologies help athletes maintain optimal body temperature.[9]

Infringement Detection Analysis I believe it would be relatively easy to detect infringement of the Longlife patents. Infringers would most likely market features that reduce the subject patent family to practice in trade publications, at trade expositions, and through similar avenues. It is likely that such efforts would readily come to the attention of ABC and/or its distributors, representatives and anticipated licensees. Once such potential infringement comes to the attention of ABC, ABC would likely be able to obtain a potentially infringing specimen. Then, ABC would be able to examine the subject textiles, maybe as simply as with the naked eye.

Presumption of Validity Analysis It is expected that the subject patent will issue in the US in the near term and in other jurisdictions over the next few years. Upon issuance, the patents will benefit from the presumption of validity and the standards for invalidating it will be "clear and convincing evidence" rather than the lower hurdle of a "preponderance of the evidence".

Patent Expiration Analysis The US patent application will have substantial remaining patent life. Given the US filing date of April 12, 2012, the envisioned patent is expected to endure until May 25, 2032 as the patent term will be extended an additional 43 days. The Longlife patent should endure in the Patent

[8] http://www.foxnews.com/tech/2013/11/03/mit-students-wearable-cooling-device/
[9] http://nikeinc.com/news/new-nike-apparel-technologies-help-athletes-maintain-optimal-body-temperature

Cooperation Treaty countries through February 11, 2032.

Prosecution History Analysis In connection with the European patent family members, the prosecution history of the subject patents is less important than is the case of their US counterpart. This is because—in European patent litigation—judges are more concerned with what the issued claims state than in the patent prosecution process through which they were formulated.

However, the prosecution of the Longlife patent was very clean. For instance, in the August 13, 2013 Opinion of the International Searching Authority, it was held that all claims (1-22) were novel, introduced an inventive step and embodied industrial applicability. Another indication as to the Longlife patent's highly hygienic nature is that the patent prosecution was extremely rapid—just 1.25 years from the date of filing until the Notice of Issuance of Allowance.

The cleanliness and speed of the prosecution was achieved sans examiner interviews. (While there was one telephonic interview with the US patent examiner on October 29, 2013, this occurred after the Notice of Allowance was issued.) The fact that there were no interviews during prosecution indicates that the examiners' review of the patent applications was not influenced by any persuasive powers of patent attorneys or inventors.

Citation Analysis Due the recency of the publication of the subject patent applications, there has not been sufficient time for the patent applications to attract forward citations.

Enforceability The issue of enforceability is not relevant since there are not yet issued patents to be enforced. As I have reviewed maintenance fee schedules prepared by Egli Patentwalte for other of ABC's patents, I am confident that Egli Patentwalte will inform ABC of its patent maintenance fee requirements.

Sustainability in Opposition Since there is only one inventor listed on subject patents and applications, the subject patent family deserves the highest possible sustainability in opposition score. In other words, since there is only one inventor listed on the patents there is no risk of conflicting depositions during any possible attempts to invalidate the patents.

Chain of Title Analysis Mr. Baumeler confirmed to me that he is the only true inventor associated with the Longlife patents. Further, it is my understanding that as a matter of prevailing Swiss law, patents and patent applications automatically become the property of the inventor's employer. Thus, there is no risk associated with the assignment of the subject patents from the inventor to his employer.

Chain of title analysis is important because there is a high correlation between patent assignments and litigation.[10] Further, it is my understanding that no third parties have—or are contemplating—taking a secured interest in the subject patent applications. This adds to patent strength given that there is a correlation between borrowing against patents and patent litigation.[11] To my knowledge, there are no chain of title risks associated with:

[10] Bessen, James (2008) "The value of U.S. patents by owner and patent characteristics," Research Policy, 37, pp. 932-45.

[11] Predicting Patent Litigation, Colleen Chien, Santa Clara University School of Law, January 1, 2011. http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1165&context=facpubs

- The patent application being funded by any government or any government agency.
- Research being conducted at universities.
- Acquiring the patent application from companies for which the patent(s) was the primary asset.
- Acquiring the patent application from married inventors from community property jurisdictions.
- Acquiring the patent application from inventors who had side revenue participation interests in the patents.

Inequitable Conduct Risk After reviewing the prosecution histories and prior art disclosures relating to the patents, there is no reason to believe that any acts of inequitable conduct took place—or will take place—during the prosecution process.

Prior Art Analysis Rigorous prior art searches were conducted and no prior art of significance was detected. Egli Patentwalte conducted its own patent search which included searching competitor names and specialized literature. Egli used the Orbit database—a search tool used by many patent offices around the world—for conducting such searches. Also, according to the International Search Report completed on January 30, 2013, only two pieces of prior art were detected when employing the European Patent Office's internal database. These two pieces of prior art were both placed in the "A" category indicating they are "not considered to be of particular relevance."

Title Analysis The title of the Longlife patent family is "Textile Substrate with Water and Water Vapo(u)r Draining Properties" is clear and descriptive. Thus, it is likely that the patents have been and will be reviewed by examiners in the appropriate art units.

Description Analysis The description of the invention was thorough and well-written. In my opinion, the best mode requirement was adequately addressed. The teachings contained in the description did not exceed the scope of the claims which is accretive to patent value since no proprietary knowledge was divulged other than in the claims.

Drawings Analysis The subject patent application contained nine drawings. These drawings appear to support the descriptions. The drawings appear to be well-labeled and I do not remember seeing any "not shown" statement relative to claimed elements. The quantity and quality of drawings should enhance patent value in that—should the anticipated patent encounter invalidity challenges and to the extent to which there were oversights in claiming the inventions—the drawings might provide clarity as to what the intended claimed inventions were.

Claims Analysis I believe that the claims were well-drafted and provide broad coverage. To wit:

- There are four independent claims in the US patent application, all of which are composition of matter claims. By nature, composition of matter claims are extremely broad in that they cover any use of the composition of matter. There are 18 dependent claims. Dependent claims add strength to patents

since they add clarity to the invention and since dependent claims can become independent claims if their related independent claims are cancelled.

- The claims are supported by the descriptions.
- There is consistency between the claims and the descriptions in terms of terminology and scope.
- The claims appear to be in proper formats and appear to meet statutory standards. The claims appear to be properly dependent and there seems to be proper antecedent basis. As to the last point, the word "the" was properly used in the claims and the world "said" was not used in the claims (except for claim 17).
- I believe comparative words were used in a non-problematic manner. For example, the word "greater" (e.g. claim 9) was used but I think that the use of that word was clear in the claims.
- I do not believe that the patent application has a shifting terminology risk. A shifting terminology risk arises when a claim uses two phrases for the same idea, or one phrase for two different ideas, in a way that makes understanding of the claim difficult or even impossible.
- I believe that the usage of the key terms are in keeping with industry standards. This clarity is positive for comprehension and interpretation.

Analysis of the Summary of the Invention The Summary of the Invention section of the patent application was a well-written summary of the claimed invention (and should be relatively understandable to members of juries).

Encumbrance Analysis To my knowledge, there are no encumbrances—such as prior licenses, cross-licenses, obligations under licensing to standards programs or liens—placed on the Longlife patent family.

Inventor Analysis Mr. Alfred Baumeler is listed as an inventor on only the Longlife and Dualcycle patents. Mr. Baumeler is thoroughly knowledgeable in the field of textiles having garnered 35 years of experience in weaving textiles and in textile machinery.

Prosecuting Lawyer Analysis I believe that the quality of lawyers involved in drafting and prosecuting the subject patents is superb. The Longlife patent family was drafted and prosecuted by the offices of EGLI Patentwalte, one of Switzerland's largest dedicated intellectual property law firms. Mr. Richard Egli was educated as a physicist and studied at the Harvard Business School. Mr. Egli has been practicing intellectual property law since 1978. Roughly 20% of Mr. Egli's practice consists of representing textile machinery companies. Further, Mr. Egli has been involved in patent litigation matters throughout the world. This is a positive indication of the patents' abilities to withstand invalidity attack since patent lawyers that also have backgrounds in litigating patents can better determine where vulnerabilities might lie should such patents become embroiled in litigation.

Mr. Armin Blacha of Egli Patentwalte was also instrumental in drafting and prosecuting the Longlife patents. Mr. Blacha is a Swiss patent attorney and was educated at the University of Braunschweig / University of Stuttgart and earned a Ph.D. in Physics at the Max-Planck Institute for Solid State Physics.

The US prosecuting lawyer is Christopher R. Glembocki of Banner & Witcoff. Mr. Glembocki appears to be a suitable prosecuting attorney as he is experienced with international patent filings and in counseling clients with respect to validity and infringement opinions. Mr. Glembocki was a US patent examiner and was educated as an electrical engineer. Mr. Glembocki is a contributing author in the *Patent Litigation Strategies Handbook*, BNA 2000 and supplements.

Patent Examiner Analysis The US patent examiner is Robert Muromoto. Mr. Muromoto appears to be a sufficiently discerning patent examiner. He has an allowance rate of 75.2%, just slightly more liberal than the USPTO average allowance rate of 70.1%. Of the 606 patents he has examined 36 have been appealed and 20 restriction requirements were issued. Throughout his tenure as a US patent examiner, Mr. Muromoto issued an average of 0.74 non-final rejections per patent. While I do not have similar statistics for the European patent examiner, the same examiner reviewed both the Longlife and Dualcycle patents. This is somewhat of an indication of the examiner's proficiency with textile patents.

VALUATION OF THE LONGLIFE PATENT FAMILY

In arriving at a conclusion of value for the Longlife patent family, I employed the Market Method and a hybrid of the Income and Relief from Royalty Methods. The Market Method holds that the value of a patent can be determined by reviewing comparable transactions. The Income Method calls for determining the net present value that the patent generates from licensing such patent to a licensee who will sell products that feature the patented invention. The Relief from Royalty Method is similar to the Income Method but holds that the value of a patent is a function of the relief the patentee enjoys by not having to pay others to use such patent. Since it is envisaged that the commercialization of Longlife will be a function of both ABC's internal efforts and its recruitment of licensees, I thought that this hybrid approach would be appropriate. (In any case, the presentations of both Relief from Royalty and Income Methods are substantially identical.)

THE MARKET METHOD

In preparing the Market Method of Patent Valuation, I used Lear Corporation's acquisition of Guilford Mills to derive a value for the Longlife patent family. In May of 2012, Lear Corporation acquired Guilford Mills, a global leader in automotive and specialty fabrics, from Cerberus Capital Management. The purchase price was $257 million. Guilford Mills generated 85% of its revenue from automotive applications. At the time of the acquisition, Ray Scott, Lear's Executive Vice President and President of Lear's Seating Division said, "Guilford will provide additional technical expertise, global fabric design and manufacturing capacity to our existing world-class seat trim business."[12]

In 2011, Johnson Controls acquired Keiper Recaro Group's automotive seating business. In 2010, Johnson Controls acquired the Michael Thierry Group, a supplier of fabrics and lamination to the automotive industry which was based in Laroque d'Olmes, France.[13] However, I am not using these comparable transactions since no financial details were disclosed and since Lear's acquisition of Guilford Mills is more recent.

Below is my valuation of the Longlife patent family based on the implied market value of the Guilford Mills patents.

[12] http://www.lear.com/InTheNews/1582/1/Lear-Completes-Acquisition-of-Guilford-Mills.aspx

[13] http://www.johnsoncontrols.co.uk/content/gb/en/news.html?newsitem=http%3A%2F%2Fuk.johnsoncontrols.mediaroom.com%2Findex.php%3Fs%3D1281%26item%3D2433

Gessner Patents

Longlife Patent Family

November 22, 2013

Notes		
	Amortization of Lear Corporation's Intangible Assets	
1	2013	$33,000,000
1	2012	$28,000,000
1	2011	$27,000,000
	Additional Amortization Reported by Lear Corporation	
	2013 v. 2012	$5,000,000
	2012 v. 2011	$1,000,000
	Additional Amortization due to the Guilford Mills Acquisition	$4,000,000
1	Weighted Average Useful Life (Years) (as of December 31, 2012)	8.8
	Implied Value of Guilford Mills Technical IP	$35,200,000
2	Apportionment to Patents	90%
	Net Implied Value of Guilford Mills Patents	$31,680,000
3	Number of Identified GM Patent Families	4
4	Patent Count Adjustment Factor	2.5
	Implied Number of GM Patent Families	10
	Implied Value per GM Patent Family	$3,168,000
5	Premium / Discount on Longlife Patent	10%
	Implied Value of Comparable Gessner Patents	$3,484,800
	Number of Comparable Gessner Patent Families	1
	Implied Value of the Longlife Patent Family	$3,484,800
	Exchange Rate - USD to CHF	0.92
	Implied Value of the Longlife Patent Family	CHF 3,206,016
	Implied Value of the Longlife Patent Family (Rounded)	**CHF 3.2 Million**

Below are discussion points relating to the numbered notes above:

Note 1 – The incremental amortization reported by Lear Corporation for 2012 versus 2011 was $4 million. Since Lear did not announce any other acquisitions for 2012, I am assuming that the Guilford Mills acquisition was responsible for all of this increase in amortization. I multiplied the 8.8 years of useful life by $4 million to arrive at an implied value of $35.2 million for Guilford Mills' technical IP. The source for this data is Lear Corporation's 10-K Securities and Exchange Commission filing for 2012.[14]

Note 2 – I am apportioning 90% of the implied value for Guilford Mills' technical IP towards its patents. While it is likely that Lear Corporation received trade secrets and valuable employees during the acquisition, I do not think that such issues can claim much of the technical IP value. First, it is common for employees to leave a company when it is acquired. Secondly, I performed a search for the terms "non compete" and "non-compete" on the above-referenced 10-K and no results were returned. This is likely to mean that no material non-compete agreements were signed with former Guilford Mills' employees. Thus, any trade secrets they bore could not have been deemed to be terribly valuable. Third, I do not think it is the business model of Lear (nee Guilford Mills) to offer turnkey solutions to its customers. When it is the business model of companies to offer turnkey solutions, then those companies are more likely to withhold their trade secrets (as opposed to divulging them through patent publication).

Note 3 – I conducted several searches to determine the number of patents assigned to Guilford Mills at the time of its 2012 acquisition by Lear Corporation. I found four such patents. (See Exhibit F.)

Note 4 – I am increasing the number of patents deemed to be assigned to Guilford Mills at the time of its 2012 acquisition by Lear Corporation by a factor of 2.5 because I do not believe that Guilford Mills only controlled four patents at that time. While it is known that private equity funds have a reputation for slashing their portfolio companies' expenses (even on patents), especially in anticipation of preparing such companies for an exit, I find it hard to believe that Guilford Mills only had four active patents.

As patentees have no obligation to update their assigned patents with the USPTO and as companies may have patents on record with the USPTO under trade names, the names of subsidiaries or simply misspelled names, the information regarding patent assignees at the USPTO is not reliable. However, in recent years, Guilford Mills had another 35 patents that expired (but in none of these cases was the expiration because of failure to pay maintenance fees). Thus, I believe it is reasonable to assume that Guilford controlled 10 patent families at the time of its acquisition.

Note 5 – I am awarding the Longlife patent family a 10% premium to the Guilford patents because I believe that while the Guildford patents may not have been neglected, they were not of paramount importance to their owners. On the other hand, ABC is extremely determined to commercialize and /or monetize its Longlife patent family.

[14] Lear Corporation, 2012 10-K filing, page 32

RELIEF FROM ROYALTY / INCOME METHOD

I would like to point out a few notes relative to the entire Relief from Royalty / Income Method Analysis. I modeled in that ABC will derive relief from royalties and/or royalty revenues throughout 2024, even though the Longlife patent will not expire until early 2032. This is because there is a risk that the patented technology will be eclipsed before the end of 2032. In fact, in its Business Plan, ABC states "Climatex has an advantage of about two years in the path towards series production for passive Climate-controlled seating in the automotive industry". There is also the issue of terminal value which is the imputed value that will inure to a company after its patents expire. Terminal value may arise for a patent when the patent enables the creation of long-term brand value. I am not assigning terminal value to Longlife because it is often marketed under the Climatex trademark and the Climatex trademark is the recipient of substantial marketing efforts on the part of ABC.

Automotive Market

The importance of seating technology is of crucial importance to auto manufacturers. The seating system turns out to be more expensive than gear box, chassis, and auto body to most cars.[15] The average price of common car seats is around $850-1,050, that of medium-grade ones ranges between $1,400-1,600 while that of top-grade ones is typically in excess of $2,000.

One of the compelling drivers for Longlife in terms of the automotive market is that Longlife can reduce the use of air conditioning in automobiles. As indicated below, such reduction in the use of air conditioning reduces fuel consumption significantly.

ABC Patents
Longlife Patent Analysis
November 22, 2013

Additional Fuel Consumption Due to the Use of Air Conditioning

	Gasoline Cars	Diesel Vehicles
Urban	10.0%	4.5%
Suburban	2.8%	2.3%
Motorway	1.3%	1.2%

Source: 2010 Study conducted by Empa on behalf of the Swiss Federal Office for the Environment (FOEN)

Below is my analysis for the valuation of the Longlife patent family (together with an explanation and sourcing of notes) in relation to commercialization in the automotive industry.

[15] global-and-china-automotive-seating-system-industry-report-2010-2011-124765303

Gessner Patents
Longlife Patent Family Valuation
Application in the Automotive Sector
November 22, 2013

Notes	(numbers in 000s)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	AUTOMOTIVE												
1	Worldwide Auto Sales		68,513	69,540	70,583	71,642	72,717	73,807	74,915	76,038	77,179	78,337	79,512
2	Percent of World Auto Sales to be Covered by the Longlife Patents		35%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
3	US Auto Sales		100%	35.0%	35.0%	34.5%	34.0%	33.5%	33.0%	32.5%	32.0%	31.5%	31.0%
3	European Auto Sales		0%	35.0%	33.0%	32.0%	31.0%	30.0%	29.0%	28.0%	27.0%	26.0%	25.0%
3	Rest of World - in Regions to be Covered by the Longlife Patent		0%	10.0%	12.0%	13.5%	15.0%	16.5%	18.0%	19.5%	21.0%	22.5%	24.0%
	Addressable Market												
	US		18,979	19,471	19,763	19,773	19,779	19,780	19,777	19,770	19,758	19,741	19,719
	Europe		0	19,471	18,634	18,340	18,034	17,714	17,380	17,033	16,671	16,294	15,902
	Rest of World - in Regions to be Covered by the Longlife Patent		0	5,563	6,776	7,737	8,726	9,743	10,788	11,862	12,966	14,101	15,266
	Total Addressable Market Worldwide		**18,979**	**44,506**	**45,173**	**45,851**	**46,539**	**47,237**	**47,945**	**48,664**	**49,394**	**50,135**	**50,887**
	Patent Issuance / Discount Factors												
4	US		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
4	Europe		12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
4	Rest of World - in Regions to be Covered by the Longlife Patent		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Patent Risk Adjusted Auto Sales												
	US		18,979	18,498	18,775	18,785	18,790	18,791	18,789	18,781	18,770	18,754	18,733
	Europe		0	17,135	16,398	16,140	15,870	15,588	15,295	14,989	14,670	14,339	13,994
	Rest of World - in Regions to be Covered by the Longlife Patent		0	4,451	5,421	6,190	6,981	7,794	8,630	9,490	10,373	11,280	12,213
	Total Patent Adjusted Risk Addressable Market (Autos)		**18,979**	**40,083**	**40,594**	**41,114**	**41,640**	**42,174**	**42,713**	**43,260**	**43,813**	**44,373**	**44,940**
	Average Number of Seats in Autos		4	4	4	4	4	4	4	4	4	4	4
5	Leather Seats	25%	1	1	1	1	1	1	1	1	1	1	1
5	Non-Leather Seats	75%	3	3	3	3	3	3	3	3	3	3	3
	Total Number of Addressable Non-Leather Seats		**56,938**	**120,249**	**121,782**	**123,342**	**124,921**	**126,521**	**128,140**	**129,779**	**131,439**	**133,119**	**134,820**
	Penetration of Non-Leather Seats (Rate)		0	0.01%	0.5%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%
	Penetration of Non-Leather Seats (Number)		0	12	609	1,233	2,498	3,796	5,126	6,489	7,886	9,318	10,786
6	Revenue per Seat (Euro)		0.0	24.00	24.24	24.48	24.73	24.97	25.22	25.48	25.73	25.99	26.25
	Total Longlife Revenue (Euro)		**0.0**	**289**	**14,760**	**30,197**	**61,779**	**94,794**	**129,289**	**165,316**	**202,925**	**242,170**	**283,105**

Gessner Patents
Longlife Patent Family Valuation
Application in the Automotive Sector
November 22, 2013

Notes	(numbers in 000s)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	AUTOMOTIVE												
7	Relief from Royalty / Royalty Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	Revenues Attributable to Longlife (Millions of Euros)		0.00	5.8	295.2	604	1,236	1,896	2,586	3,306	4,058	4,843	5,662
	Exchange Rate - Euros to Swiss Francs	1.24											
	Revenues Attributable to Longlife (Millions of CHF)		0.0	7.2	366	749	1,532	2,351	3,206	4,100	5,033	6,006	7,021
8	Discount Rate	9%											
	Net Present Value of Longlife Due from Auto Sales	CHF 14,603,206											
9	Probability of Scenario	20%											
	Probability Adjusted Net Present Value	CHF 2,920,641											
	Probability Adjusted Net Present Value (Rounded)	**CHF 2.9 Million**											

Note 1 – Scotiabank estimated that worldwide auto sales were 67.5 million in 2013.[16] Also, in his 2012 CEO's Letter, the CEO of Lear Corporation reported that 80 million vehicles were produced in 2012. I projected a 1.5% annual increase from the more conservative baseline.

Note 2 – While the schedule provided on Exhibit A indicates the countries in which it is contemplated that Longlife patent protection will be sought, even if patent protection is obtained in all listed countries, there will still be roughly 20% of auto sales throughout the world that would transpire in regions where there will not be patent coverage.

Note 3 – I used Lear Corporation's distribution of sales to estimate the distribution of Longlife worldwide sales into automotive seating. In the years ahead, I modeled that the US and Europe will account for a declining share of worldwide sales while the Rest of the World will account for a larger share.

Note 4 – Below I outlined my assessment of the Longlife patent family's risks. While sales may be made in various parts of the world, value cannot be apportioned to the Longlife patent if such patent family members are not issued, infringement siphons off royalties or if licensees do not remit royalties. I believe there is only a risk of 1% that the patent will not be granted in the US, a 6% chance that it will not be granted in Europe and a 10% chance that it will not be granted in the Rest of the World where it is contemplated such patent filings will take place. My estimates of the risks of the Longlife patent being infringed and licensees failing to remit all of the royalties due are provided below.

Gessner Patents
Patent-Specific Discount Analysis
November 22, 2013

	Probability of Patent Granting		Infringement / Audit Risks		Total Patent Risks	
	Longlife	Dualcycle	Longlife	Dualcycle	**Longlife**	**Dualcycle**
USA	1%	15%	4%	4%	**5.0%**	**19.0%**
Europe	6%	2%	6%	6%	**12.0%**	**8.0%**
Rest of World	10%	18%	10%	10%	**20.0%**	**28.0%**

Note 5 – ABC estimates.

Note 6 – As indicated below, Longlife should generate €24 per seat in its initial launches.

[16] www.gbm.**scotiabank**.com/English/bns_econ/bns_**auto**.pdf

Gessner Patents Initial Uptake by Auto Industry November 22, 2013	
Daimler's E-Line Production (Autos, 2015)	100,000
Options Taken for Longlife / Climatex	10%
Autos Fitted with Longlife / Climatex	10,000
Seats per Auto	4.0
Seats Fitted with Longlife / Climatex	40,000
Square Meters of Longlife / Climatex per Seat	1.2
Cost per Square Meter of Longlife / Climatex (Euro)	20
Cost of Fitting Seat with Longlife / Climatex (Euro)	24
Cost of Fitting Car with Longlife / Climatex (Euro)	96
Value of the Daimler Contract to Longlife / Climatex in 2015 (Euro)	**960,000**

Note 7 – Please see Royalty Rate Analysis beginning on page 75.

Note 8 – Please see Discount Rate Analysis beginning on page 84.

Note 9 – It is comforting that Daimler has funded two seating projects (one for €40,000 and another for €25,000) and BMW has funded one seating project for €100,000. These collaborations increase the likelihood that sales and/or licensing will eventually occur. However, companies the size of Daimler and BMW certainly do not embrace every technology that they investigate. I estimate that they embrace 20% of such projects.

Furniture Industry

Below is my analysis for the valuation of the Longlife patent family (together with an explanation and sourcing of notes) in relation to commercialization in the furniture industry.

Gessner Patents
Longlife Patent Family Valuation
Application in the Furniture Industry
November 22, 2013

	Furniture Industry	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
1	Square Meters of Longlife Textiles Sold	5,000	6,563	8,613	11,305	14,838	19,475	25,560	33,548	44,032	57,791	75,851
2	Square Meters of Longlife Textiles Licensed		19,688	25,840	33,915	44,513	58,424	76,681	100,644	132,095	173,374	227,554
	Total Square Meters of Longlife Commercialized	**5,000**	**26,250**	**34,453**	**45,220**	**59,351**	**77,898**	**102,241**	**134,192**	**176,126**	**231,166**	**303,405**
	Geographic Distribution of Square Meters by Patents (Percent)											
3	North America	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
3	Europe	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
3	Rest of World Total	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Geographic Distribution of Square Meters Covered by Patents (Numbers)											
	North America	2,750	14,438	18,949	24,871	32,643	42,844	56,233	73,805	96,870	127,141	166,873
	Europe	1,250	6,563	8,613	11,305	14,838	19,475	25,560	33,548	44,032	57,791	75,851
	Rest of World Total	1,000	5,250	6,891	9,044	11,870	15,580	20,448	26,838	35,225	46,233	60,681
	Patent Issuance Discount Factors											
4	US	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
4	Europe	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
4	Rest of World	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Patent Risk Adjusted Square Meter Addressable Sales											
	US	2,613	13,716	18,002	23,627	31,011	40,702	53,421	70,115	92,026	120,784	158,529
	Europe	1,100	5,775	7,580	9,948	13,057	17,138	22,493	29,522	38,748	50,857	66,749
	Rest of World - in Regions to be Covered by the Longlife Patent	800	4,200	5,513	7,235	9,496	12,464	16,359	21,471	28,180	36,987	48,545
	Total Patent Risk Adjusted Square Meter Sales	**4,513**	**23,691**	**31,094**	**40,811**	**53,564**	**70,303**	**92,273**	**121,108**	**158,954**	**208,627**	**273,823**
5	**Billings per Square Meter**	20	20	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.7	21.9
	Total Billings (Euro)	**90,250**	**473,813**	**628,098**	**832,622**	**1,103,745**	**1,463,151**	**1,939,590**	**2,571,169**	**3,408,406**	**4,518,268**	**5,989,529**
6	Relief from Royalty / Royalty Rate 2.0%	1,805	9,476	12,562	16,652	22,075	29,263	38,792	51,423	68,168	90,365	119,791
	Revenues Attributable to Longlife Patents (Euros)											
	Exchange Rate - Euros to Swiss Francs 1.24											
	Revenues Attributable to the Longlife Patents (CHF)	2,238	11,751	15,577	20,649	27,373	36,286	48,102	63,765	84,528	112,053	148,540
7	Discount Rate 9%											
	Net Present Value of Longlife Due from Auto Sales CHF 280,158											
8	Probability of Scenario 85%											
	Probability Adjusted Net Present Value CHF 238,134											
	Probability Adjusted Net Present Value (Rounded) CHF 240,000											

Note 1 – ABC estimates.

Note 2 – I believe that ABC should be able to recruit licensees that can collectively sell three times as much Longlife textiles to the furniture industry as ABC itself.

Note 3 – ABC estimates

Note 4 – Please see Patent-Specific Discount Analysis on page 23.

Note 5 – ABC estimates.

Note 6 – Please see Royalty Rate Analysis beginning on page 75.

Note 7 – Please see Discount Rate Analysis beginning on page 84.

Note 8 – In view of ABC having so many years of experience in selling textiles to the furniture industry, I believe that there is a high likelihood of success for selling and licensing Longlife for application in the furniture industry.

Aircraft Industry

Below is my analysis for the valuation of the Longlife patent family (together with an explanation and sourcing of notes) in relation to commercialization in the aircraft industry.

Gessner Patents
Longlife Patent Family Valuation
Application in the Aircraft Sector
November 22, 2013

	AIRCRAFT (numbers in 000s)	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Notes												
	New Commercial Aircraft Deliveries											
1	Single-Aisle Aircraft		1012	1012	1012	1012	1012	1012	1012	1012	1012	1012
1	Twin-Aisle Aircraft		364	364	364	364	364	364	364	364	364	364
1	Very Large Aircraft		86	86	86	86	86	86	86	86	86	86
	Seats per Aircraft Size											
2	Single-Aisle Aircraft		105	106	107	108	109	110	111	112	113	114
2	Twin-Aisle Aircraft		300	302	304	306	308	310	312	314	316	318
2	Very-Large Aircraft		450	453	456	459	462	465	468	471	474	477
	Total Potential Seats in New Aircraft		253,848	255,844	257,840	259,836	261,832	263,828	265,824	267,820	269,816	271,812
3	Annual Seat Replacement Rate & Replacements 10%		25,385	25,584	25,784	25,984	26,183	26,383	26,582	26,782	26,982	27,181
	Worldwide Annual Aircraft Seat Demand		**279,233**	**281,428**	**283,624**	**285,819**	**288,015**	**290,211**	**292,406**	**294,602**	**296,797**	**298,993**
4	Percent of Aircraft to be Covered by the Longlife Patents		80%	85%	90%	90%	90%	90%	90%	90%	90%	90%
	Worldwide Aircraft Seat Demand Covered by Longlife Patents		**223,386**	**239,214**	**255,262**	**257,237**	**259,213**	**261,189**	**263,165**	**265,141**	**267,117**	**269,093**
	Geographic Distribution of Seats Covered by Patents (Percent)											
5	North America		32%	31.6%	31.2%	30.8%	30.4%	30.0%	29.6%	29.2%	28.8%	28.4%
5	Europe		22%	21.8%	21.6%	21.4%	21.2%	21.0%	20.8%	20.6%	20.4%	20.2%
5	Rest of World Total		46%	46.6%	47.2%	47.8%	48.4%	49.0%	49.6%	50.2%	50.8%	51.4%
	Geographic Distribution of Seats Covered by Patents (Numbers)											
	North America		71,484	75,592	79,642	79,229	78,801	78,357	77,897	77,421	76,930	76,423
	Europe		49,145	52,149	55,136	55,049	54,953	54,850	54,738	54,619	54,492	54,357
	Rest of World Total		102,758	111,474	120,483	122,960	125,459	127,983	130,530	133,101	135,696	138,314
	Patent Issuance Discount Factors											
6	US	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
6	Europe	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
6	Rest of World	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Patent Risk Adjusted Aircraft Addressable Seat Sales											
	US		67,909	71,812	75,660	75,268	74,861	74,439	74,002	73,550	73,083	72,601
	Europe		43,248	45,891	48,520	48,443	48,359	48,268	48,170	48,065	47,953	47,834
	Rest of World - in Regions to be Covered by the Longlife Patent		82,206	89,179	96,387	98,368	100,367	102,386	104,424	106,481	108,557	110,651
	Total Patent Risk Adjusted Aircraft Addressable Seat Sales		**193,363**	**206,882**	**220,566**	**222,078**	**223,587**	**225,093**	**226,596**	**228,096**	**229,593**	**231,087**
7	Estimated Market Penetration		0.0%	2.0%	5.0%	8.0%	11.0%	14.0%	17.0%	20.0%	23.0%	26.0%
	Total Airplane Seats Fitted with Longlife		**0**	**4,138**	**11,028**	**17,766**	**24,595**	**31,513**	**38,521**	**45,619**	**52,806**	**60,083**

Gessner Patents
Longlife Patent Family Valuation
Application in the Aircraft Sector
November 22, 2013

AIRCRAFT
(numbers in 000s)

Notes			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Billings per Seat												
8	Square Meters of Longlife / Climatex per Seat			1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
8	Cost per Square Meter of Longlife / Climatex (Euro)			20	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.7	21.9
	Cost of Fitting Seat with Longlife / Climatex (Euro)			24.00	24.24	24.48	24.73	24.97	25.22	25.48	25.73	25.99	26.25
	Total Billings (Euro)				**100,296**	**270,000**	**439,310**	**614,237**	**794,892**	**981,388**	**1,173,838**	**1,372,361**	**1,577,073**
9	Relief from Royalty / Royalty Rate	2.0%		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
10	Premium on Royalty	2		2	2	2	2	2	2	2	2	2	2
	Adjusted Royalty	4.0%		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Revenues Attributable to Longlife Patents (Euros)				**4,012**	**10,800**	**17,572**	**24,569**	**31,796**	**39,256**	**46,954**	**54,894**	**63,083**
	Exchange Rate - Euros to Swiss Francs	1.24											
	Revenues Attributable to Longlife (CHF)		**1**	**1**	**4,975**	**13,392**	**21,790**	**30,466**	**39,427**	**48,677**	**58,222**	**68,069**	**78,223**
11	Discount Rate	9%											
	Net Present Value of Longlife Due from Auto Sales	CHF 177,529											
12	Probability of Scenario	20%											
	Probability Adjusted Net Present Value	CHF 35,506											
	Probability Adjusted Net Present Value (Rounded)	**CHF 35,000**											

Note 1 – These estimates come from Airbus.[17] The most recent Airbus forecast—covering aircraft deliveries from 2011-2030—forecast only 26,921 aircraft, some 7,000 fewer than Boeing has forecast. It is important to note that Airbus does not forecast regional jets nor aircraft with fewer than 100 seats. Thus, the forecast included in the model is very conservative.

Note 2 – IncreMental Advantage estimates.

Note 3 – IncreMental Advantage estimates.

Note 4 – Even if the Longlife patent family secures issued patents in all of the jurisdictions contemplated, these patents will not cover the entire globe. However, due to the fact that aircraft will be traveling across borders, the patents that are envisioned to become issued will cover a higher percentage of aircraft than was the case with automobiles (above).

Note 5 - IncreMental Advantage estimates.

Note 6 – Please see Patent-Specific Discount Analysis on page 23.

Note 7 – IncreMental Advantage estimates. It should also be noted that I did not project any revenues related to selling Longlife to the aircraft industry until 2016 due to the need for Longlife to meet higher flame retardancy standards.

Note 8 – ABC estimates.

Note 9 – Please see Royalty Rate Analysis beginning on page 75.

Note 10 – It is common for a licensor to charge different royalty rates when its patents are utilized in different industries. While I do not know how much cost savings airlines stand to gain by using less air conditioning due to Longlife, the analysis conducted by Switzerland's EMPA indicates that such savings can be substantial. (See the related chart on page 20.) Further, to the extent that Longlife textiles weigh less than the seating textiles they replace, airlines can save enormous amounts of money. (See the chart on page 55 for related analysis.) Further, the structure of the auto industry differs from that of the aircraft manufacturing industry. While the automakers can dictate terms to their suppliers, this is less true in the aircraft manufacturing industry. This is because the airlines are active in customizing the planes that they purchase. Thus, the airlines can apply pressure on the aircraft manufacturing companies to utilize favored features. These factors should help ABC obtain higher royalties from the aircraft manufacturing companies than from auto companies.

Note 11 - Please see Discount Rate Analysis beginning on page 84.

Note 12 – To my knowledge, no airlines are sponsoring research into the potential applicability of using Longlife textiles as is the case in the automotive industry. However, I believe that this fact is counterbalanced by the fact that ABC has a long running relationship with Lantal and selling to the aircraft industry is Lantal's forte. (It is my understanding that CHF 43 million of Lantal's 2012 revenues of CHF 83 million were derived from the airline industry.)

[17] **HTTP://LEEHAMNEWS.WORDPRESS.COM/2012/07/05/AIRCRAFT-DEMAND-COMPARING-THE-BIG-FOUR-OEMS/**

The Buses, Trains and Boats Market

Below is my analysis for the valuation of the Longlife patent family (together with an explanation and sourcing of notes) in relation to commercialization in the buses, trains and boats industries.

Gessner Patents

Longlife Patent Family Valuation

Application in the Buses, Trains and Boats Sector

November 22, 2013

	BUSES, TRAINS, SHIPS											
Notes	(numbers in 000s)	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
	Addressable Market											
	BUSES											
	Square Meters of Longlife Demanded											
1	Europe	180,000	181,800	183,618	185,454	187,309	189,182	191,074	192,984	194,914	196,863	198,832
2	US	198,000	199,980	201,980	204,000	206,040	208,100	210,181	212,283	214,406	216,550	218,715
3	Rest of the World Covered by Longlife Patent	180,000	181,800	183,618	185,454	187,309	189,182	191,074	192,984	194,914	196,863	198,832
	TRAINS											
	Square Meters of Longlife Demanded											
4	Europe	60,000	60,600	61,206	61,818	62,436	63,061	63,691	64,328	64,971	65,621	66,277
4	US	66,000	66,660	67,327	68,000	68,680	69,367	70,060	70,761	71,469	72,183	72,905
4	Rest of the World Covered by Longlife Patent	60,000	60,600	61,206	61,818	62,436	63,061	63,691	64,328	64,971	65,621	66,277
	SHIPS											
	Square Meters of Longlife Demanded											
5	Europe	22,500	22,725	22,952	23,182	23,414	23,648	23,884	24,123	24,364	24,608	24,854
5	US	24,750	24,998	25,247	25,500	25,755	26,012	26,273	26,535	26,801	27,069	27,339
5	Rest of the World Covered by Longlife Patent	22,500	22,725	22,952	23,182	23,414	23,648	23,884	24,123	24,364	24,608	24,854
	Total Demand for Longlife (Square Meters)											
	Europe	262,500	265,125	267,776	270,454	273,159	275,890	278,649	281,436	284,250	287,092	289,963
	US	288,750	291,638	294,554	297,499	300,474	303,479	306,514	309,579	312,675	315,802	318,960
	Rest of the World Covered by Longlife Patent	262,500	265,125	267,776	270,454	273,159	275,890	278,649	281,436	284,250	287,092	289,963
	Worldwide Demand for Longlife (Square Meters)	**813,750**	**821,888**	**830,106**	**838,407**	**846,792**	**855,259**	**863,812**	**872,450**	**881,175**	**889,986**	**898,886**

Gessner Patents
Longlife Patent Family Valuation
Application in the Buses, Trains and Boats Sector
November 22, 2013

Notes	BUSES, TRAINS, SHIPS (numbers in 000s)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Patent Issuance Discount Factors												
6	US	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
6	Europe	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
6	Rest of World	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Patent Risk Adjusted Addressable Square Meter Sales												
	US		249,375	251,869	254,387	256,931	259,501	262,096	264,717	267,364	270,037	272,738	275,465
	Europe		254,100	256,641	259,207	261,799	264,417	267,062	269,732	272,430	275,154	277,905	280,684
	Rest of World - in Regions to be Covered by the Longlife Patent		210,000	212,100	214,221	216,363	218,527	220,712	222,919	225,148	227,400	229,674	231,971
	Total Patent Risk Adjusted Addressable Square Meter Sales		**713,475**	**720,610**	**727,816**	**735,094**	**742,445**	**749,869**	**757,368**	**764,942**	**772,591**	**780,317**	**788,120**
7	Estimated Market Penetration (Percent)		1.0%	1.5%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
	Estimated Market Penetration (Square Meters)		7,135	10,809	14,556	22,053	29,698	37,493	45,442	53,546	61,807	70,229	78,812
8	Cost per Square Meter of Longlife / Climatex (Euro)		20	20	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.7	21.9
	Billings for Longlife Seating Products (Euros)		142,695	216,183	294,038	449,922	611,953	780,317	955,202	1,136,802	1,325,316	1,520,949	1,723,911
9	Relief from Royalty / Royalty Rate	2.0%											
	Revenues Attributable to Longlife (CHF)		2,854	4,324	5,881	8,998	12,239	15,606	19,104	22,736	26,506	30,419	34,478
10	Discount Rate	9%											
	Net Present Value of Longlife Due from Auto Sales	CHF 94,709											
11	Probability of Scenario	15%											
	Probability Adjusted Net Present Value	CHF 14,206											
	Probability Adjusted Net Present Value (Rounded)	**CHF 14,000**											

Note 1 – ABC obtained a report that suggested that 40,000 buses are purchased annually in Europe. ABC management indicated that 10% of such buses would be likely candidates for Longlife and that each bus would require 45 square meters of Longlife.

Note 2 – I am assuming that the US market is 10% larger than the European market for buses.

Note 3 – I am assuming that the Rest of the World market is the same size as the European market.

Note 4 – I am assuming that the market for seating in trains is one-third that of the market for seating in buses.

Note 5- I am assuming that the market for seating on boats is one-eighth that of the market for seating in buses. The ability of the Longlife patent to cover cruise lines is limited by the fact that major cruise lines such as Carnival and Royal Caribbean are incorporated in foreign countries like Panama, the Bahamas, Bermuda and Liberia. Their ships fly the flags of foreign nations and thus avoid all U.S. federal taxes, labor laws and safety regulations.[18] While 35 U.S.C. § 271(g) generally provides that whoever imports into the United States a product made with a process that is patented in the United States shall be liable for infringement, the fact that cruise ships typically operate outside of the reach of US law makes it difficult to see how US patent coverage will be accretive to the value of the Longlife patent family.

Note 6 – Please see Patent-Specific Discount Analysis on page 23.

Note 7 – I am modeling a slow and moderate penetration of the market for seating in buses, trains, and boats for several reasons. First, much of the demand for buses, trains and boats is driven by government. Selling to the government takes considerable time given that vendors must be qualified (and therefore meet a variety of conditions such as having stipulated rates of minority ownership), must formulate bids, wait for orders and dislodge incumbent competitors. Second, Lantal has not solidified its position in this market the way that it has in the aircraft industry. Third, it seems that Kvadrat is an earlier mover in the boat market as Australian ship designer Austal has chosen a specially designed Kvadrat textile for the seating inside the 'Leonora Christina', a high-speed catamaran passenger ferry operating in the Baltic Sea.[19]

Note 8 – ABC estimates.

Note 9 – Please see Royalty Rate Analysis beginning on page 75.

Note 10 – Please see Discount Rate Analysis beginning on page 84.

Note 11 – As cost seems to be an important driver in (largely) public transportation, I think the likelihood of penetrating this market is small.

[18] http://edition.cnn.com/2013/02/13/opinion/walker-cruise-ships/
[19] http://kvadrat.dk/segments/project/23/Leonora+Christina+Ferry

CONCLUSION OF VALUE FOR THE LONGLIFE PATENT FAMILY

Since the Market Method and the Relief from Royalty / Income Methods both produced fair valuations of CHF 3.2 million for the Longlife patent family, my Conclusion of Fair Value for this patent family is CHF 3.2 million as of November 22, 2013.

Gessner Patents Valuation of the Longlife Patent Family Summary of Value November 22, 2013	
Market Method	**CHF 3.2 Million**
Income Method	
Automobiles	2,920,641
Furniture	238,134
Airplanes	35,506
Buses, Trains, Ships	14,206
Total NPV of Longlife	3,208,487
Total NPV of Longlife (Rounded)	**CHF 3.2 Million**

ANALYSIS OF THE DUALCYCLE PATENT FAMILY

Below is my analysis of the Dualcycle Patent Family. This analysis is reflected in discounts applied in the Income Method of Patent Valuation. To summarize, I believe the Dualcycle patent family was very well drafted, there is nominal prior art risk and the ability to detect infringement is high. I am not aware of anything in the heretofore prosecution history that would deter potential licensees from entering into licensing arrangements with ABC.

Summary of Patent Family The Dualcycle patent family is entitled "Textile Substrate Made of Several Different Disposable and/or Usable Materials, Use of Such a Textile Substrate, and Method for Reprocessing Such a Textile Substrate." This patent has a priority date of June 7, 2011 and was filed under the Patent Cooperation Treaty on June 6, 2012 and it issued on July 24, 2013 (under publication number EP2532775 B1). A related patent application is scheduled to be filed with the United States Patent and Trademark Office no later than December 7, 2013.

Patent Subject Matter The special Dualcycle weave structure uses a "textile lock" to combine three materials: Cradura™, specified new wool and Redesigned Lenzing FR. The objective of the Dualcycle invention is to enable an inexpensive processing of the textile substrate in which different materials can be separated from one another in a simple manner so that these materials can be disposed of and/or utilized separately. Various combinations of materials can be selected in order to specifically optimize properties of the textile substrate. All methods of separating the fibers are covered by the Dualcycle patent but the anticipated means of unlocking two materials include:

- Subjecting the textile substrate to a solvent;
- Subjecting the textile substrate to a solvent, and heating the textile substrate to a prescribed temperature;
- Subjecting the textile substrate to a solvent, and heating the textile substrate to a prescribed temperature at a prescribed pressure;
- Heating the textile substrate to a prescribed temperature; and,
- Cooling the textile substrate down to a prescribed temperature.

Impact of Novelty Analysis The key value driver covered by the Dualcycle patent is its textile lock. This technical screw is manufactured of hybrid textiles from technical and natural fibers. The novelty inherent in Dualcycle is embodied by the ability to apply a special weave and material technology. This textile lock can be opened using a very simple industrial process that is established worldwide. Once separated, the components can be completely recycled and upcycled in pure form.

While the technical details of Dualcycle's performance are known to ABC intimately well, they do not need to be restated in this report. However, it is important to point out a few highlights. First, at least CHF 500,000 has been invested in subjecting the technology behind Dualcycle (together with Longlife) to a rigorous battery of testing.

Below is a summary of some of Dualcycle's technical advantages. Dualcycle leads its closest competitors in terms of Sustainability, Durability, Abrasion Resistance and Comfort.

Valuation of the Dualcycle Patents
Dualcycle Competitor Analysis
November 22, 2013

Feature / Competitor	Dualcycle	Camira	Gabriel	Kvadrat
Sustainability				
Pricing				
Durability (DC)				
Abrasion Resistance				
Comfort				
Breadth of Line				
Ranking	1	2	3	4
Color				

Source: IncreMental Advantage and ABC AG

Separability / Recyclability With Dualcycle, ABC developed the first completely recyclable hybrid upholstery fabric. (Many Climatex / Dualcycle products are produced with such recyclablility in mind. For instance, specified new wool, ramie and redesigned Lenzing FR are designed and dyed so that they can be reused in the biological cycle.) Once the Dualcycle textile is unlocked, the Cradura™ material used in Climatex® Dualcycle™ "feeds" new cycles as a technical nutrient. For this purpose, Cradura™ can be decomposed into felt and then used as non-woven upholstery, garden mulch or many other end products. Management reported to me that one literally can eat the recyclable material.

Climatex / Dualcycle has been certified as Cradle-to-Cradle compliant. This is important because some clients—such as the government of the Netherlands—require such certification of the textile-laden products that they procure. The (impending) pervasiveness of Cradura is evident in its being affiliated with the Leadership in Energy & Environmental Design (“LEED”) designation.

The chart below indicates that variability of importance that various industries place on Dualcycle’s Cradle-to-Cradle certification.

Vertical	Importance of Cradle-to-Cradle
Carpets	**Moderate**
Fireproof Suits	**Low**
Camouflage Fatigues	**Low**
Sound Protection	**High**
Mold Construction	**Moderate**
Healthcare – Beds / Gurneys	**High**
Wheelchairs	**High**
Wound Healing	**Moderate**

Source: ABC and IncreMental Advantage

Abrasion Resistance / Durability Dualcycle textiles score two- to three- times the number of Martindales compared to competing fabrics. Martindales count the number of cycles that a fabric can endure before fabric shows objectionable change in appearance such as yarn breaking, piling, and holes.

Abrasion Testex results table, EN-ISO 12947-2 (new), EN-ISO 14465		
Martindale abrasion test	**Net**	**Grain**
Number of measurements	4	4
Pressure (kPa)	12	12
Ø abrasion cycles (T)	154,250	266,250
CV % abrasion cycles	1.94	2.36

Flame Retardancy Dualcycle offers very compelling flame retardancy characteristics. The flame retardancy is located in Dualcycle's second layer. The technical material melts on contact with fire and is drawn into the hybrid fabric without dripping. Another feature of Dualcycle's flame retardancy is that there is less smoke emissions which is important, particularly in public transportation. Flames tested on Dualcycle textiles rose less than 100 mm per minute and they self-extinguished. Dualcycle customers can obtain the same flame retardancy levels as offered by other textiles while paying 25% of the comparable prices.

Flame Retardancy **EN-DIN 1021 test sheet part 1 +2**			
Combustion criteria	**Flammability**	**Ignition source**	**Gas flame**
Unsafe escalating combustion	no	no	no
Test assembly consumed	no	no	no
Flames through the entire thickness	no	no	no
Flame time > 120 seconds	no	no	no
No: criteria were not exceeded			

Breathability Through the combination of its functional layers—its natural and technical raw materials—Dualcycle provides effective moisture regulation. It absorbs, buffers and releases moisture in a controlled way thus keeping the seat surface dry, even during intense and prolonged seating time and perspiration phases. Dualcycle boasts low Ret. Values (7.98 for Net patters and 5.85 for Grain patterns) which measure resistance to vapor moving through the textile. Further, according to rigorous testing, these low Ret. Values are achieved with little volatility—1.62% for Net patterns and 1.53% for Grain patterns.

Breathability Results table, EN-ISA 31092 (ISO 11092), <3 mm		
Water vapor resistance	**Net (patterns)**	**Grain**
Number of measurements	3	3
Test temperature (°C)	35	35
Rel. humidity (%)	40	40
Ret. Value (m2Pa/W)*	7.98	5.85
Standard deviation	0.129	0.089
CV %	1.62	1.53
Ret values below 8 are considered “extremely breathable”		

Below is a summary of some of the functionality offered via the Dualcyle patent. Some of these functionalities were offered—in varying degrees—by Lifecyle and Lifeguard.

Metric	Dualcycle Functionality	Utility Similar to:
Separability / Recyclability	See analysis above. (Note: In 2010, the Environmental Protection Encouragement Agency granted ABC the right to use of a Cradle to Cradle ® quality statement regarding Climatex ® Lifecycle™ and Climatex ® LifeguardFR™ in its entirety for sales purposes.)	Separability - Nothing / Unique Recyclability – Lifeguard Lifecycle
Abrasion Resistance / Durability	See analysis above.	Lifeguard Lifecycle
Flame Retardancy	See analysis above.	Lifeguard Lifecycle
Breathability	See analysis above.	Lifeguard Lifecycle
Thermal Resistance	Dualcycle offers more thermal resistance than competing textiles. In terms of the amount of heat that passes through the body and the fabric while seating, Dualcycle scores 27.5 versus 36.5 for 100% polyester fabrics. The lower such readings are, the more agreeable it is to sit on such textiles when the sun is shining.	
Anti-Slip	The three dimensional structure of the fabric surface strengthens adherence and prevents undesired sliding on the seat. Keeping people at more consistent seating positions enables better posture.	
Heat Regulation	Materials convey contact heat; the dyeing substances reflect thermal radiation.	
Easy Maintenance	Stain removal is easy, even with normal benzene-based cleaners. Dualcycle can be vacuumed with a soft brush and stains can be wiped away with a moist sponge. Professional dry cleaning is another possibility.	Lifeguard Lifecycle

Economies in Production	Economies of scale can be achieved when produced in connection with Longlife. Van de Weil—a textile machine producer—can bring to the market (as well as license its patents to others for the purpose of allowing them to bring to market) the combination of Longlife and Dualcycle at a 30% reduction in production costs.	Longlife
Total Lifetime Costs	Recyclable materials can be sold at the end of the life of the related furniture. Various jurisdictions may offer incentives (such as tax credits) for proper disposal of textiles.	
Haptic Properties	Dry, not soapy or slippery, but can feel rough (depending on which fabric and the diameter of the yarn used) if your skin makes contact with the fabric.	
Ergonomics / Posture	See Anti-Slip above.	
Ease of Design	Textile manufacturers can easily incorporate Dualcycle into the fabrics, designs and colors sought by customers. .	Lifeguard

Design-Around Risk Due to the large number of claims—and the breadth of those claims—listed on the Dualcycle patent, I do not think that infringers could easily design-around the specific claims. However, it should be noted that while potential customers are attracted to other Dualcycle benefits, such benefits could be addressed by other means. For instance, the airlines are very interested in reducing the weight of their aircraft so as to reduce their fuel costs. However, airlines are already very active in reducing the weight of their planes. For example, Southwest and United Airlines have added six seats per plane and conserved $10 million in fuel expenses.[20]

Infringement Detection Analysis I believe it would be relatively easy to detect infringement of the Dualcycle patents. Infringers would most likely market features that reduce the subject patent family to practice in trade publications, at trade expositions, and through similar avenues. It is likely that such efforts would readily come to the attention of ABC and/or its distributors, representatives and anticipated licensees. Once such potential infringement comes to the attention of ABC, ABC would likely be able to obtain a potentially infringing specimen. Then, ABC would be able to examine the subject textiles, maybe as simply as with the naked eye.

Even if the anticipated infringer precluded ABC from obtaining a specimen sample, ABC would be able to leverage its method claims by notifying the suspected infringer that ABC believes that infringement may

[20] http://www.nydailynews.com/news/national/airlines-trim-seat-sizes-weights-boost-capacity-reduce-fuel-costs-article-1.1486440#ixzz2k11zjOFl

be occurring. This notification could enable ABC to begin investigations into such claims or to initiate patent infringement litigation. The presence of method claims would shift the burden of proof—that the alleged infringer is not infringing—to the alleged infringer.

Presumption of Validity Analysis The subject patent benefits from the presumption of validity and the standards for invalidating it are "clear and convincing evidence" rather than a "preponderance of the evidence".

Patent Expiration Analysis The Dualcycle patent has substantial remaining patent life. The Dualcycle patent should endure in the Patent Cooperation Treaty countries through June 6, 2032.

Prosecution History Analysis In connection with the European patent family members, the prosecution history of the subject patents is less important than in the US. This is because—in European patent litigation—judges are more concerned with what the issued claims state than in the patent prosecution process through which they were formulated.

Nevertheless, the prosecution was largely clean. The strategy of the drafting lawyers was to file broadly. As such, the examiner held that four claims were not new. These claims were amended slightly without relinquishing significant claims scope. The Dualcycle patent prosecution process occurred very rapidly: it issued under the Patent Cooperation Treaty authority in 13.5 months. The speed of the prosecution was achieved sans examiner interviews. The fact that there were no interviews during prosecution indicates that the examiners' review of the patent applications was not influenced by any persuasive powers of patent attorneys or inventors.

Citation Analysis Due the recency of the publication of the Dualcycle patent, there has not been sufficient time for the patent to attract forward citations.

Enforceability The Dualcycle patent is enforceable in the Patent Cooperation Treaty companies. As I have reviewed maintenance fee schedules prepared by Egli Patentwalte for other of ABC's patents, I am confident that Egli Patentwalte will inform ABC of its patent maintenance fee requirements.

Sustainability in Opposition Since there is only one inventor listed on subject patents and applications, the subject patent family deserves the highest possible sustainability in opposition score. In other words, since there is only one inventor listed on the patents there is no risk of conflicting depositions during any possible attempts to invalidate the patent applications.

Chain of Title Analysis Mr. Baumeler confirmed to me that he is the only true inventor associated with the Dualcycle patents. Further, it is my understanding that as a matter of prevailing Swiss law, patents and patent applications automatically become the property of the inventor's employer. Thus, there is no risk associated with the assignment of the subject patents from the inventor to his employer.

Chain of title analysis is important because there is a high correlation between patent assignments and litigation.[21] Further, it is my understanding that no third parties have—or are contemplating—taking a secured interest in the subject patent applications. This adds to patent strength given that there is a correlation between borrowing against patents and patent litigation.[22] To my knowledge, there are no chain of title risks associated with:

- The patent application being funded by any government or any government agency.
- Research being conducted at universities.
- Acquiring the patent application from companies for which the patent(s) was the primary asset.
- Acquiring the patent application from married inventors from community property jurisdictions.
- Acquiring the patent application from inventors who had side revenue participation interests in the patents.

Inequitable Conduct Risk After reviewing the prosecution histories and prior art disclosures relating to the patents, there is no reason to believe that any acts of inequitable conduct took place—or will take place—during the prosecution of Dualcycle patent family members.

Prior Art Analysis Rigorous prior art searches were conducted and no prior art of significance was detected. Egli Patentwalte conducted its own patent search which included searching competitor names and specialized literature. Egli used the Orbit database—a search tool used by many patent offices around the world—for conducting such searches. Also, according to the International Search Report completed on October 10, 2013, only two pieces of prior art were detected when employing the European Patent Office's internal database. These two pieces of prior art were both placed in the "A" category indicating they are "not considered to be of particular relevance."

Title Analysis The title of the Longlife patent family is "Textile Substrate Made of Several Different Disposable and/or Usable Materials, Use of Such a Textile Substrate, and Method for Reprocessing Such a Textile Substrate" is clear and descriptive. Thus, it is likely that the patents have been and will be reviewed by examiners in the appropriate art units.

Description Analysis The description of the invention was thorough and well-written. In my opinion, the best mode requirement was adequately addressed. The teachings contained in the description did not exceed the scope of the claims which is accretive to patent value since no proprietary knowledge was divulged other than in the claims.

Drawings Analysis The subject patent application contained nineteen drawings. These drawings appear to support the descriptions. The drawings appear to be well-labeled and I do not remember seeing any "not shown" statement relative to claimed elements. The quantity and quality of drawings should

[21] Bessen, James (2008) "The value of U.S. patents by owner and patent characteristics," Research Policy, 37, pp. 932-45.

[22] Predicting Patent Litigation, Colleen Chien, Santa Clara University School of Law, January 1, 2011. http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1165&context=facpubs

enhance patent value in that—should the anticipated patent encounter invalidity challenges and to the extent to which there were oversights in claiming the inventions—the drawings might provide clarity as to what the intended claimed inventions were.

Claims Analysis I believe that the claims were well-drafted and provide broad coverage. To wit:

- The Dualcycle patent contains four independent claims, two of which are composition of matter claims and two of which are process claims. There are 19 dependent claims. Dependent claims add strength to patents since they add clarity to the invention and since dependent claims can become independent claims if their related independent claims are cancelled.
- The claims are supported by the descriptions.
- There is consistency between the claims and the descriptions in terms of terminology and scope.
- The claims appear to be in proper formats and appear to meet statutory standards. The claims appear to be properly dependent and there seems to be proper antecedent basis.
- I believe comparative words were used exceedingly sparingly.
- As another marker of claim breadth, the word “comprises” was used in some of the claims.
- No trademarks or trade names were used in the claims, the use of which is scope-limiting.
- I do not believe that the patent application has a shifting terminology risk. A shifting terminology risk arises when a claim uses two phrases for the same idea, or one phrase for two different ideas, in a way that makes understanding of the claim difficult or even impossible.
- I believe that the usage of the key terms are in keeping with industry standards. This clarity is positive for comprehension and interpretation.

Analysis of the Summary of the Invention The Summary of the Invention section of the patent application was a well-written summary of the claimed invention (and should be relatively understandable to members of juries).

Encumbrance Analysis To my knowledge, there are no encumbrances—such as prior licenses, cross-licenses, obligations under licensing to standards programs or liens—placed on the Dualcycle patent family.

Inventor Analysis Mr. Alfred Baumeler is listed as an inventor on only the Dualcycle and Longlife patents. Mr. Baumeler is thoroughly knowledgeable in the field of textiles having garnered 35 years of experience in weaving textiles and in textile machinery.

Prosecuting Lawyer Analysis I believe that the quality of lawyers involved in drafting and prosecuting the subject patents is superb. The Dualcycle patent family was drafted and prosecuted by the offices of EGLI Patentwalte, one of Switzerland’s largest dedicated intellectual property law firms. Mr. Richard Egli was educated as a physicist and studied at the Harvard Business School. Mr. Egli has been practicing intellectual property law since 1978. Roughly 20% of Mr. Egli’s practice consists of representing textile

machinery companies. Further, Mr. Egli has been involved in patent litigation matters throughout the world. This is a positive indication of the patents' abilities to withstand invalidity attack since patent lawyers that also have backgrounds in litigating patents can better determine where vulnerabilities might lie should such patents become embroiled in litigation.

Mr. Armin Blacha of Egli Patentwalte was also instrumental in drafting and prosecuting the Longlife patents. Mr. Blacha is a Swiss patent attorney and was educated at the University of Braunschweig / University of Stuttgart and earned a Ph.D. in Physics at the Max-Planck Institute for Solid State Physics.

Patent Examiner Analysis While I do not have biographical or statistical information on the European patent examiner, the same examiner reviewed both the Longlife and Dualcycle patents. This is somewhat of an indication of the examiner's proficiency with textile patents.

VALUATION OF THE DUALCYCLE PATENT FAMILY

There is tremendous interest in Dualcycle. Dualcycle has been growing 25-30% annually while during a time in which the textile market has been contracting 25-30%. For instance, it was related to me that ABC has received 150 indications of interest to bring in Dualcycle (laden with Cradle-to-Cradle) to the marketplace. Most of this interest is for seating and among companies that are interested in Dualcycle / Cradle to Cradle are Daimler and BMW. Also, the Swiss Army has expressed an interest in using Dualcycle for its camouflaged uniforms.

Despite the high degree of inventiveness associated with the Dualcycle lock and the many positive aspects associated with Dualcycle (see pages 35 - 39), there will be challenges in introducing Dualcycle to the marketplace. First, the ability to unlock the textile in order to facilitate recycling of part of the associated textile represents a very long-term delay of any potential customer satisfaction. Second, to achieve this satisfaction, the customer / licensee will have to make a concerted effort to unlock Dualcycle in a manner compliant with the patent and to then separate and dispose of the materials. Third, no country is more environmentally conscious than Switzerland which means that selling the recyclability features associated with Dualcycle will be more challenging in every country outside of Switzerland. (See the chart below.)

The data below presents and “order of magnitude” snapshot of the relative importance that Dualcycle’s key markets place on environmental sensitivity. Note that Switzerland scores 76.7%.

Europe	69.8%
United States	56.6%
Rest of the World (as approximated by averaging (China, India and Brazil)	53.3%

Source: Yale Center for Environmental Law & Policy

RELIEF FROM ROYALTY / INCOME METHOD

I used the Relief from Royalty / Income Method to calculate the value of the Dualcycle patent family.

Yale Center for Environmental Law & Policy
In collaboration with
The World Economic Forum
and
The Joint Research Centre (JRC), European Commission

Environmental Impact Index
Strongest Performers

1	Switzerland	76.69
2	Latvia	70.37
3	Norway	69.92
4	Luxembourg	69.2
5	Costa Rica	69.03
6	France	69
7	Austria	68.92
8	Italy	68.9
9	United Kingdom	68.82
9	Sweden	68.82

Environmental Impact Index
Strong Performers

11	Germany	66.91
12	Slovakia	66.62
13	Iceland	66.28
14	New Zealand	66.05
15	Albania	65.85
16	Netherlands	65.65
17	Lithuania	65.5
18	Czech Republic	64.79
19	Finland	64.44
20	Croatia	64.16
21	Denmark	63.61
22	Poland	63.47
23	Japan	63.36
24	Belgium	63.02
25	Malaysia	62.51
26	Brunei Darussalam	62.49
27	Colombia	62.33
28	Slovenia	62.25
29	Taiwan	62.23
30	Brazil	60.9
31	Ecuador	60.55
32	Spain	60.31
33	Greece	60.04
34	Thailand	59.98
35	Nicaragua	59.23
36	Ireland	58.69
37	Canada	58.41
38	Nepal	57.97
39	Panama	57.94
40	Gabon	57.91
41	Portugal	57.64
42	Philippines	57.4
43	South Korea	57.2
44	Cyprus	57.15
45	Hungary	57.12
46	Uruguay	57.06

http://epi.yale.edu/epi2012/rankings

Environmental Impact Index
Modest Performers

47	Georgia	56.84
48	Australia	56.61
49	United States	56.59
50	Argentina	56.48
50	Cuba	56.48
52	Singapore	56.36
53	Bulgaria	56.28
54	Estonia	56.09
55	Sri Lanka	55.72
56	Venezuela	55.62
57	Zambia	55.56
58	Chile	55.34
59	Cambodia	55.29
60	Egypt	55.18
61	Israel	54.64
62	Bolivia	54.57
63	Jamaica	54.36
64	Tanzania	54.26
65	Belarus	53.88
66	Botswana	53.74
67	Côte d'Ivoire	53.55
68	Zimbabwe	52.76
69	Myanmar	52.72
70	Ethiopia	52.71
71	Honduras	52.54
72	Dominican Republic	52.44
73	Paraguay	52.4
74	Indonesia	52.29
75	El Salvador	52.08
76	Guatemala	51.88
77	United Arab Emirates	50.91
78	Namibia	50.68
79	Viet Nam	50.64
80	Benin	50.38
81	Peru	50.29
82	Saudi Arabia	49.97
83	Kenya	49.28
84	Mexico	49.11

Environmental Impact Index
Weaker Performers

85	Togo	48.66
86	Algeria	48.56
87	Malta	48.51
88	Romania	48.34
89	Mozambique	47.82
90	Angola	47.57
91	Ghana	47.5
92	Dem. Rep. Congo	47.49
93	Armenia	47.48
94	Lebanon	47.35
95	Congo	47.18
96	Trinidad and Tobago	47.04
97	Macedonia	46.96
98	Senegal	46.73
99	Tunisia	46.66
100	Qatar	46.59
101	Kyrgyzstan	46.33
102	Ukraine	46.31
103	Serbia	46.14
104	Sudan	46
105	Morocco	45.76
106	Russia	45.43
107	Mongolia	45.37
108	Moldova	45.21
109	Turkey	44.8
110	Oman	44
111	Azerbaijan	43.11
112	Cameroon	42.97
113	Syria	42.75
114	Iran	42.73
115	Bangladesh	42.55
116	China	42.24
117	Jordan	42.16
118	Haiti	41.15
119	Nigeria	40.14
120	Pakistan	39.56

Environmental Impact Index
Weakest Performers

121	Tajikistan	38.78
122	Eritrea	38.39
123	Libyan Arab Jamahiriya	37.68
124	Bosnia and Herzegovina	36.76
125	India	36.23
126	Kuwait	35.54
127	Yemen	35.49
128	South Africa	34.55
129	Kazakhstan	32.94
130	Uzbekistan	32.24
131	Turkmenistan	31.75
132	Iraq	25.3

The Automotive Market

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the automobile industry.

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Automotive Sector
November 22, 2013

Notes	(numbers in 000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	AUTOMOTIVE											
1	Worldwide Auto Sales	68,513	69,540	70,583	71,642	72,717	73,807	74,915	76,038	77,179	78,337	79,512
2	Percent of World Auto Sales to be Covered by the Dualcycle Patents	35%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
3	US Auto Sales	100%	35.0%	35.0%	34.5%	34.0%	33.5%	33.0%	32.5%	32.0%	31.5%	31.0%
3	European Auto Sales	0%	35.0%	33.0%	32.0%	31.0%	30.0%	29.0%	28.0%	27.0%	26.0%	25.0%
3	Rest of World - in Regions to be Covered by the Dualcycle Patent	0%	10.0%	12.0%	13.5%	15.0%	16.5%	18.0%	19.5%	21.0%	22.5%	24.0%
	Addressable Market											
	US	18,979	19,471	19,763	19,773	19,779	19,780	19,777	19,770	19,758	19,741	19,719
	Europe	0	19,471	18,634	18,340	18,034	17,714	17,380	17,033	16,671	16,294	15,902
	Rest of World - in Regions to be Covered by the Dualcycle Patent	0	5,563	6,776	7,737	8,726	9,743	10,788	11,862	12,966	14,101	15,266
	Total Addressable Market Worldwide	**18,979**	**44,506**	**45,173**	**45,851**	**46,539**	**47,237**	**47,945**	**48,664**	**49,394**	**50,135**	**50,887**
	Patent Issuance / Discount Factors											
4	US	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
4	Europe	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
4	Rest of World - in Regions to be Covered by the Dualcycle Patent	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
	Patent Risk Adjusted Auto Sales											
	US	18,979	15,772	16,008	16,016	16,021	16,022	16,020	16,014	16,004	15,990	15,972
	Europe	0	17,914	17,143	16,873	16,591	16,297	15,990	15,670	15,337	14,990	14,630
	Rest of World - in Regions to be Covered by the Dualcycle Patent	0	4,006	4,879	5,571	6,283	7,015	7,767	8,541	9,336	10,152	10,992
	Total Patent Adjusted Risk Addressable Market (Autos)	**18,979**	**37,691**	**38,030**	**38,460**	**38,895**	**39,333**	**39,777**	**40,224**	**40,676**	**41,133**	**41,594**
5	Average Number of Square Meters of Dualcycle per Auto	7	7	7	8	9	10	11	12	13	14	15
6	Price of Dualcycle per Square Meter (Euro)	12	11.8	11.5	11.3	11.1	10.8	10.6	10.4	10.2	10.0	9.8
	Total Addressable Market for Dualcycle in Autos	**1,594,268**	**3,102,705**	**3,068,039**	**3,475,060**	**3,874,524**	**4,266,519**	**4,651,128**	**5,028,435**	**5,398,523**	**5,761,474**	**6,117,371**

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Automotive Sector
November 22, 2013

Notes	(numbers in 000s)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	AUTOMOTIVE												
7	Penetration Ratio of Dualcycle in Autos		0.00%	0.0%	0.075%	0.3%	0.75%	1.1%	1.4%	1.8%	2.3%	2.8%	3.3%
	Total Dualcycle Revenue (Euro)		**0**	**0**	**2,301**	**10,425**	**29,059**	**47,998**	**66,279**	**91,769**	**125,516**	**162,762**	**203,403**
8	Relief from Royalty / Royalty Rate		1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
	Revenues Attributable to Dualcycle Patent (Millions of Euros)		0.00	0.0	34.5	156	436	720	994	1,377	1,883	2,441	3,051
	Exchange Rate - Euros to Swiss Francs	1.24											
	Revenues Attributable to Dualcycle Patent (Millions of CHF)		1.0	0.0	43	194	540	893	1,233	1,707	2,335	3,027	3,783
9	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales	CHF 6,405,812											
10	Probability of Scenario	20%											
	Probability Adjusted Net Present Value	CHF 1,281,162											
	Probability Adjusted Net Present Value (Rounded)	**CHF 1,300,000**											

Note 1 – Scotiabank estimated that worldwide auto sales were 67.5 million in 2013.[23] Also, in his 2012 CEO's Letter, the CEO of Lear Corporation reported that 80 million vehicles were produced in 2012. I projected a 1.5% annual increase from the more conservative baseline.

Note 2 – While the schedule provided on Exhibit B indicates the countries in which it is contemplated that Dualcycle patent protection will be sought, even if patent protection is obtained in all listed countries, there will still be roughly 20% of auto sales throughout the world that would transpire in regions where there will not be patent coverage.

Note 3 – I used Lear Corporation's distribution of sales to estimate the distribution of Dualcycle worldwide sales into automotive seating. (Interestingly, in the European Union, legislation requires that the materials within vehicles be recycled, reused or disposed of safely.) In the years ahead, I modeled that the US and Europe will account for a declining share of worldwide sales while the Rest of the World will account for a larger share.

Note 4 – Below I outlined my assessment of the Dualcycle patent family's risks. While sales may be made in various parts of the world, value cannot be apportioned to the Dualcycle patent if such patent family members are not issued, infringement siphons off royalties or if licensees do not remit royalties. For instance, I believe there is a 15% risk of that the patent will not be granted in the US. (Actually, as of the date of this report, there is no Dualcycle patent application before the USPTO.) This is based on the USPTO having a 70.1% allowance rate or a 30% disallowance rate. Thus, I reduced the disallowance rate by 50% (30% / 2) in view of its clean European prosecution history to arrive at a 15% risk factor. My estimates of the risks of the Dualcycle patent being infringed and licensees failing to remit all of the royalties due are provided below.

Gessner Patents
Patent-Specific Discount Analysis
November 22, 2013

	Probability of Patent Granting		Infringement / Audit Risks		Total Patent Risks	
	Longlife	Dualcycle	Longlife	Dualcycle	**Longlife**	**Dualcycle**
USA	1%	15%	4%	4%	**5.0%**	**19.0%**
Europe	6%	2%	6%	6%	**12.0%**	**8.0%**
Rest of World	10%	18%	10%	10%	**20.0%**	**28.0%**

Note 5 – I believe these estimates are reasonable given that a mid-sized car will use about 44 pounds of textiles.[24] Also, included as part of the rapid rise in the number of square meters of Dualcycle fabrics per auto, is the use of Dualcycle in molding.

[23] www.gbm.**scotiabank**.com/English/bns_econ/bns_**auto**.pdf
[24] http://specialtyfabricsreview.com/articles/0311_f2_automotive_fabric.html

Note 6 – ABC estimates.

Note 7 – IncreMental Advantage estimates.

Note 8 – Please see Royalty Rate Analysis beginning on page 75.

Note 9 – Please see Discount Rate Analysis beginning on page 84.

Note 10 – I believe that a relatively high success factor (20%) is warranted in view of BMW and Daimler funding validation of Longlife and Dualcycle textiles. Also, since Longlife is projected to be sold to the auto industry before Dualcycle, ABC will have time to ingratiate itself with auto companies.

The Furniture Industry

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the furniture industry.

Gessner Patents

Dualcycle Patent Family Valuation

Application in the Furniture Industry

November 22, 2013

			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Furniture Industry												
1	Square Meters of Dualcycle Textiles Sold Directly		24,000	36,000	54,000	81,000	121,500	182,250	227,813	284,766	327,480	376,603	433,093
2	Square Meters of Dualcycle Textiles Sold via Licensees			100,000	200,000	400,000	600,000	900,000	1,080,000	1,296,000	1,555,200	1,866,240	2,239,488
3	Price of Dualcycle per Square Meter (Euro)		12.00	12.24	12.48	12.73	12.99	13.25	13.51	13.78	14.06	14.34	14.63
	Gessner's Internal Turnover of Dualcycle		288,000	440,640	674,179	1,031,494	1,578,186	2,414,625	3,078,647	3,925,274	4,604,347	5,400,899	6,335,254
4	Internal Royalty Rate	3.0%											
	Relief from Royalty		8,640	13,219	20,225	30,945	47,346	72,439	92,359	117,758	138,130	162,027	190,058
	Licencees Revenues			1,224,000	2,496,960	5,093,798	7,793,512	11,924,073	14,595,065	17,864,360	21,865,976	26,763,955	32,759,081
5	Royalty Rate	1.5%											
	Royalty Revenues			18,360	37,454	76,407	116,903	178,861	218,926	267,965	327,990	401,459	491,386
	Combined Relief from Royalties / Royalty Revenues (Euros)		8,640	31,579	57,680	107,352	164,248	251,300	311,285	385,724	466,120	563,486	681,444
	Exchange Rate - Euros to Swiss Francs	**1.24**	**10,714**	**39,158**	**71,523**	**133,116**	**203,668**	**311,612**	**385,994**	**478,297**	**577,989**	**698,723**	**844,990**
6	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales	CHF 1,850,418											
7	Probability of Scenario	70%											
	Probability Adjusted Net Present Value	CHF 1,295,293											
	Probability Adjusted Net Present Value (Rounded)	**CHF 1,300,000**											

Note 1 – ABC reported that it is selling 2,000 square meters of Dualcycle per month. I annualized this amount for 2014.

Note 2 - I believe that potential licensees should be able to generate between three- and six-times the volume that ABC can achieve alone.

Note 3 – It is true that ABC expects that the price of Dualcycle will decline from €12 per square meter today to €10 per square meter over the next several years. However, I believe this price pressure will largely be attributable to the negotiating power and volumes offered by the auto industry. Just because it may be necessary to extend price concessions to the auto industry does not mean that such concessions must be offered to all customers. Given that Dualcycle / Climatex has been increasing its turnover by some 25% recently, this indicates that modeling the retention of some pricing power for Dualcycle is a legitimate assumption.

Note 4 – I awarded a two-times premium to the royalty rate to take into account additional advantage that ABC stands to receive from introducing Dualcycle into the furniture industry. These advantages may include:

- Higher capacity utilization of its plant and equipment;
- Greater utilization and retention of employees;
- The potential to achieve convoy sales; and,
- Higher enterprise value associated with launching a promising new patented textile.

Note 5 – Please see Royalty Rate Analysis beginning on page 75.

Note 6 – Please see Discount Rate Analysis beginning on page 84.

Note 7 – Given ABC's many years of experience in producing textiles for the furniture industry, I believe there is a high probability of ABC achieving the projections outlined in this forecast.

The Aircraft Industry

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the aircraft industry.

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Aircraft Sector
November 22, 2013

	AIRCRAFT (numbers in 000s)										
Notes		**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
	New Commercial Aircraft Deliveries											
1	Single-Aisle Aircraft		1012	1012	1012	1012	1012	1012	1012	1012	1012	1012
1	Twin-Aisle Aircraft		364	364	364	364	364	364	364	364	364	364
1	Very Large Aircraft		86	86	86	86	86	86	86	86	86	86
	Seats per Aircraft Size											
2	Single-Aisle Aircraft		105	106	107	108	109	110	111	112	113	114
2	Twin-Aisle Aircraft		300	302	304	306	308	310	312	314	316	318
2	Very-Large Aircraft		450	453	456	459	462	465	468	471	474	477
	Total Potential Seats in New Aircraft		253,848	255,844	257,840	259,836	261,832	263,828	265,824	267,820	269,816	271,812
3	Annual Seat Replacement Rate & Replacements	10%	25,385	25,584	25,784	25,984	26,183	26,383	26,582	26,782	26,982	27,181
	Worldwide Annual Aircraft Seat Demand		**279,233**	**281,428**	**283,624**	**285,819**	**288,015**	**290,211**	**292,406**	**294,602**	**296,797**	**298,993**
4	Percent of Aircraft to be Covered by the Dualcycle Patents		80%	85%	90%	95%	95%	95%	95%	95%	95%	95%
	Worldwide Aircraft Seat Demand Covered by Dualcycle Patents		**223,386**	**239,214**	**255,262**	**271,528**	**273,614**	**275,700**	**277,786**	**279,872**	**281,957**	**284,043**
	Geographic Distribution of Seats Covered by Patents (Percent)											
5	North America		32%	31.6%	31.2%	30.8%	30.4%	30.0%	29.6%	29.2%	28.8%	28.4%
5	Europe		22%	21.8%	21.6%	21.4%	21.2%	21.0%	20.8%	20.6%	20.4%	20.2%
5	Rest of World Total		46%	46.6%	47.2%	47.8%	48.4%	49.0%	49.6%	50.2%	50.8%	51.4%
	Geographic Distribution of Seats Covered by Patents (Numbers)											
	North America		71,484	75,592	79,642	83,631	83,179	82,710	82,225	81,722	81,204	80,668
	Europe		49,145	52,149	55,136	58,107	58,006	57,897	57,779	57,654	57,519	57,377
	Rest of World Total		102,758	111,474	120,483	129,791	132,429	135,093	137,782	140,496	143,234	145,998
	Patent Issuance Discount Factors											
6	US		19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
6	Europe		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
6	Rest of World		28%	28%	28%	28%	28%	28%	28%	28%	28%	28%

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Aircraft Sector
November 22, 2013

AIRCRAFT
(numbers in 000s)

Notes			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Patent Risk Adjusted Aircraft Addressable Seat Sales												
	US			57,902	61,229	64,510	67,741	67,375	66,995	66,602	66,195	65,775	65,341
	Europe			45,213	47,977	50,726	53,459	53,366	53,265	53,157	53,041	52,918	52,787
	Rest of World - in Regions to be Covered by the Dualcycle Patent			73,986	80,261	86,748	93,449	95,349	97,267	99,203	101,157	103,129	105,119
	Total Patent Risk Adjusted Aircraft Addressable Seat Sales			**177,101**	**189,467**	**201,983**	**214,649**	**216,090**	**217,527**	**218,962**	**220,393**	**221,821**	**223,246**
7	**Estimated Market Penetration**			0.0%	1.0%	2.5%	4.0%	5.5%	7.0%	8.5%	10.0%	11.5%	13.0%
	Total Airplane Seats Fitted with Dualcycle			**0**	**1,895**	**2,020**	**5,366**	**8,644**	**11,964**	**15,327**	**18,733**	**22,182**	**25,673**
	Billings per Seat												
8	Square Meters of Dualcycle / Climatex per Seat			1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
8	Cost per Square Meter of Dualcycle / Climatex (Euro)			12	11.9	11.8	11.6	11.5	11.4	11.3	11.2	11.1	11.0
	Cost of Fitting Seat with Dualcycle / Climatex (Euro)			14.40	14.26	14.11	13.97	13.83	13.69	13.56	13.42	13.29	13.15
	Total Billings (Euro)				**27,010**	**28,507**	**74,978**	**119,563**	**163,838**	**207,797**	**251,435**	**294,746**	**337,724**
9	Relief from Royalty / Royalty Rate			4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	Revenues Attributable to Dualcycle Patents (Euros)				**1,215**	**1,283**	**3,374**	**5,380**	**7,373**	**9,351**	**11,315**	**13,264**	**15,198**
	Exchange Rate - Euros to Swiss Francs	1.24											
	Revenues Attributable to Dualcycle (CHF)		**1.0**	**1**	**1,507**	**1,591**	**4,184**	**6,672**	**9,142**	**11,595**	**14,030**	**16,447**	**18,845**
10	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales	CHF 40,520											
11	Probability of Scenario	20%											
	Probability Adjusted Net Present Value	CHF 8,104											
	Probability Adjusted Net Present Value (Rounded)	**CHF 8,000**											

Note 1 – These estimates come from Airbus.[25] The most recent Airbus forecast—covering aircraft deliveries from 2011-2030—forecast only 26,921 aircraft, some 7,000 fewer than Boeing has forecast. It is important to note that Airbus does not forecast regional jets nor aircraft with fewer than 100 seats. Thus, this forecast is very conservative.

Note 2 – IncreMental Advantage estimates.

Note 3 – IncreMental Advantage estimates.

Note 4 – Even if the Dualcycle patent family secures issued patents in all of the jurisdictions contemplated, these patents will not cover the entire globe. However, due to the fact that aircraft will be traveling across borders, the patents that are envisioned to become issued will cover a higher percentage of aircraft than was the case with automobiles (above).

Note 5 - IncreMental Advantage estimates.

Note 6 – Please see Patent-Specific Discount Analysis on page 48.

Note 7 – IncreMental Advantage estimates.

Note 8 – ABC estimates. Since the aircraft manufacturers will not have as much negotiating leverage as the auto companies, I reduced the pricing of Dualcycle by one percent per year (as compared to a two percent reduction in the case of autos).

Note 9 – Please see Royalty Rate Analysis beginning on page 75. I tripled the calculated royalty rate of 1.5% to arrive at a 4.5% royalty rate on sales to the aircraft manufacturers. The decision was taken in view of the massive cost savings airplanes can achieve with Dualcycle. (See the chart below.)

[25] **HTTP://LEEHAMNEWS.WORDPRESS.COM/2012/07/05/AIRCRAFT-DEMAND-COMPARING-THE-BIG-FOUR-OEMS/**

Airline operators are extremely interested in reducing the weight of airplanes so as to reduce fuel expenses. In fact, fuel expenses now range from 25 to 40 percent of the total airline operating costs.[26]

Gessner Patents	
Airplane Savings Due to Dualcycle	
November 22, 2013	
Notes	Weight of Textiles
	Traditional Textiles (grams / seat) 420
	Dualcycle (grams / seat) 320
1	Seats per Airplane 416
	Weight Reduction of Dualcycle
	Grams / seat 100
	Grams / seat (%) 23.8%
	Weight Reduction of Dualcycle
	Grams / Airplane 41,600
	Kg / Airplane 41.6
	Fuel Savings per Airplane
2	Jet Fuel consumed per hour (liter) 14,400
3	Savings per liter per hour 41.6
4	Price of jet fuel ($ / gallon) $2.87
	Gallons per liter 3.79
	Price of jet fuel ($ / liter) $10.88
5	Hours Planes Flown Per Day 14
6	Number of Days Planes Flown / Year 350
6	Number of Years Planes Flown 20
	Savings per Hour of Flying Time
	USD 452.5
7	**Euro 334.8**
7	**Swiss Francs 411.8**
	Savings per Life of Aircraft
	USD 44,344,577
	Euro 32,814,987
	Swiss Francs 40,353,565

Notes relative to the above chart:

1 Based on the Boeing 747-400, the most common passenger version in service, given typical three-class seating arrangements.
2 A plane like a Boeing 747 uses approximately 1 gallon of fuel (about 4 liters) every second.
3 1Kg reduction = 1 liter reduction of jet fuel per hour of flying time, ABC Management
4 U.S. Gulf Coast Kerosene-Type Jet Fuel Spot Price FOB, US$ per gallon as of October 28, 2013
5 http://www.flyertalk.com/forum/archive/t-566303.html
6 IncreMental Advantage Estimates
7 At exchange rates of $/€ = 0.74 and $/CHF 0.91

[26] http://www.nordisk-aviation.com/main/en/resources/weightsaving-calculator/

Note 10 – Please see Discount Rate Analysis beginning on page 84.

Note 11 – To my knowledge, no airlines are sponsoring research into the potential applicability of using Dualcycle textiles as is the case in the automotive industry. However, I believe that this fact is counterbalanced by the fact that ABC has a long running relationship with Lantal and selling to the aircraft industry is Lantal's forte. (It is my understanding that CHF 43 million of Lantal's 2012 revenues of CHF 83 million were derived from the airline industry.)

The Buses, Trains and Boats Market

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the buses, trains and boats industries.

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Buses, Trains, and Boats Sector
November 22, 2013

			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
BUSES, TRAINS, BOATS													
Notes	(numbers in 000s)												
	Addressable Market												
	BUSES												
	Square Meters of Dualcycle Demanded												
1	Europe		1,620,000	1,636,200	1,652,562	1,669,088	1,685,778	1,702,636	1,719,663	1,736,859	1,754,228	1,771,770	1,789,488
2	US		1,782,000	1,799,820	1,817,818	1,835,996	1,854,356	1,872,900	1,891,629	1,910,545	1,929,651	1,948,947	1,968,437
3	Rest of the World Covered by Dualcycle Patent		1,620,000	1,636,200	1,652,562	1,669,088	1,685,778	1,702,636	1,719,663	1,736,859	1,754,228	1,771,770	1,789,488
	TRAINS												
	Square Meters of Dualcycle Demanded												
4	Europe		270,000	272,700	275,427	278,181	280,963	283,773	286,610	289,477	292,371	295,295	298,248
4	US		297,000	299,970	302,970	305,999	309,059	312,150	315,271	318,424	321,608	324,825	328,073
4	Rest of the World Covered by Dualcycle Patent		270,000	272,700	275,427	278,181	280,963	283,773	286,610	289,477	292,371	295,295	298,248
	SHIPS												
	Square Meters of Dualcycle Demanded												
5	Europe		202,500	204,525	206,570	208,636	210,722	212,830	214,958	217,107	219,278	221,471	223,686
5	US		222,750	224,978	227,227	229,500	231,795	234,112	236,454	238,818	241,206	243,618	246,055
5	Rest of the World Covered by Dualcycle Patent		202,500	204,525	206,570	208,636	210,722	212,830	214,958	217,107	219,278	221,471	223,686
	Total Demand for Dualcycle (Square Meters)												
	Europe		2,092,500	2,113,425	2,134,559	2,155,905	2,177,464	2,199,239	2,221,231	2,243,443	2,265,878	2,288,536	2,311,422
	US		2,301,750	2,324,768	2,348,015	2,371,495	2,395,210	2,419,162	2,443,354	2,467,788	2,492,465	2,517,390	2,542,564
	Rest of the World Covered by Dualcycle Patent		2,092,500	2,113,425	2,134,559	2,155,905	2,177,464	2,199,239	2,221,231	2,243,443	2,265,878	2,288,536	2,311,422
	Worldwide Demand for Dualcycle (Square Meters)		**6,486,750**	**6,551,618**	**6,617,134**	**6,683,305**	**6,750,138**	**6,817,639**	**6,885,816**	**6,954,674**	**7,024,221**	**7,094,463**	**7,165,408**
	Patent Issuance Discount Factors												
6	US		19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
6	Europe		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
6	Rest of World		28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Buses, Trains, and Boats Sector
November 22, 2013

BUSES, TRAINS, BOATS

Notes	(numbers in 000s)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Patent Risk Adjusted Addressable Square Meter Sales												
	US		1,694,925	1,711,874	1,728,993	1,746,283	1,763,746	1,781,383	1,799,197	1,817,189	1,835,361	1,853,715	1,872,252
	Europe		2,117,610	2,138,786	2,160,174	2,181,776	2,203,593	2,225,629	2,247,886	2,270,365	2,293,068	2,315,999	2,339,159
	Rest of World - in Regions to be Covered by the Dualcycle Patent		1,506,600	1,521,666	1,536,883	1,552,251	1,567,774	1,583,452	1,599,286	1,615,279	1,631,432	1,647,746	1,664,224
	Total Patent Risk Adjusted Addressable Square Meter Sales		**5,319,135**	**5,372,326**	**5,426,050**	**5,480,310**	**5,535,113**	**5,590,464**	**5,646,369**	**5,702,833**	**5,759,861**	**5,817,460**	**5,875,634**
7	Estimated Market Penetration (Percent)		1.0%	1.5%	2.0%	3.0%	5.0%	7.0%	9.0%	11.0%	13.0%	15.0%	17.0%
	Estimated Market Penetration (Square Meters)		53,191	80,585	108,521	164,409	276,756	391,333	508,173	627,312	748,782	872,619	998,858
8	Cost per Square Meter of Dualcycle / Climatex (Euro)		12	12.24	12.48	12.73	12.99	13.25	13.51	13.78	14.06	14.34	14.63
	Billings for Dualcycle Seating Products (Euros)		638,296	986,359	1,354,863	2,093,670	3,594,831	5,184,752	6,867,427	8,647,006	10,527,808	12,514,325	14,611,225
9	Relief from Royalty / Royalty Rate	1.5%											
	Revenues Attributable to Dualcycle (CHF)		9,574	14,795	20,323	31,405	53,922	77,771	103,011	129,705	157,917	187,715	219,168
10	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales	CHF 498,979											
11	Probability of Scenario	25%											
	Probability Adjusted Net Present Value	CHF 124,745											
	Probability Adjusted Net Present Value (Rounded)	**CHF 125,000**											

Note 1 – ABC obtained a report that suggested that 40,000 buses are purchased annually in Europe. ABC management indicated that 10% of such buses would be likely candidates for Lifecycle. I believe the remainder of the market is addressable by Dualcycle.

Note 2 – I am assuming that the US market is 10% larger than the European market for buses.

Note 3 – I am assuming that the Rest of the World market is the same size as the European market.

Note 4 – I am assuming that the market for Dualcycle seating in trains is one-sixth that of the market for seating in buses. Most intra-city trains that I have seen have no upholstery.

Note 5 - I am assuming that the market for seating on boats is one-eighth that of the market for seating in buses. The ability of the Dualcycle patent to cover cruise lines is limited by the fact that major cruise lines such as Carnival and Royal Caribbean are incorporated in foreign countries like Panama, the Bahamas, Bermuda and Liberia. Their ships fly the flags of foreign nations and thus avoid all U.S. federal taxes, labor laws and safety regulations.[27] While 35 U.S.C. § 271(g) generally provides that whoever imports into the United States a product made with a process that is patented in the United States shall be liable for infringement, the fact that cruise ships typically operate outside of the reach of US law makes it difficult to see how US patent coverage will be accretive to the value of the Dualcycle patent family.

Note 6 – Please see Patent-Specific Discount Analysis on page 48.

Note 7 – I am modeling that Dualcycle's penetration of the market for seating in buses, trains, and boats will be more rapid than that of Longlife. For instance, in the case of Longlife, I modeled that the penetration of the addressable market will rise from 1% in 2014 to 10% in 2024. In the case of Dualcycle, I modeled that the penetration of the addressable market will rise from 1% in 2014 to 17% in 2024. The primary reason for higher expectation is that local governments will be more sensitive to price and will be attracted to the recyclability associated with Dualcycle.

Note 8 – ABC estimates.

Note 9 – Please see Royalty Rate Analysis beginning on page 75.

Note 10 – Please see Discount Rate Analysis beginning on page 84.

Note 11 – Due to the reasonable costs and attractive recyclability features, I think the likelihood of penetrating this market is reasonably good.

[27] http://edition.cnn.com/2013/02/13/opinion/walker-cruise-ships/

NON-CORE MARKETS

In determining the likelihood of various non-core markets adopting Dualcycle, the issues listed below are among those I considered. The chart below was prepared with insight from ABC management.

Gessner Patents
Dualcycle's Non-Core Market Opportunities
November 22, 2013

Non-Core Market / Markers for Probabilities of Pursuit	Relative Advantage	Visibility	Willingness to Produce Small Lots	Manufacturability versus Existing Processes	Price Premium
Carpets	Middle	Low	No	Same	Low
Fireproof suits	Middle	Low	No	Harder	Low
Camouflage fatigues	High	Low	Yes	Easier	Moderate
Sound protection	High	Middle	Somewhat	Same	High
Mold construction	Middle	Low	No	Harder	Low
Healthcare – lying surfaces	High	Middle	Middle	Harder	Moderate
Wheelchairs	High	High	Somewhat	Same	High
Wound healing	High	High	No	Harder	High

Below are explanations for the above considerations:

Relative Advantage – Relative advantage indicates the extent to which Dualcycle offers enhanced characteristics versus the textiles currently used by the various industries.

Visibility - Visibility indicates the extent to which customers will be able to detect and observe the enhanced features offered by Dualcycle.

Willingness to Produce in Small Lots – This factor is important in initiating the manufacturing of a new material. A "Yes" response is helpful in running beta tests. The underlying assumption here is that if an industry is not willing to manufacture small test runs, it will be unlikely to produce in volume.

Manufacturability versus Existing Processes – This factor indicates whether producers would find it easier or more difficult to produce Dualcycle compared to producing their existing textiles. Of course, it is more favorable to Dualcycle if the responses are "Easier" or at least "Same".

Price Premiums – If producers can charge more for Dualcycle versus their existing textiles it is more likely that Dualcycle will be embraced.

Dualcycle in Carpets

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the carpet industry.

Gessner Patents

Dualcycle Patent Family Valuation

Application in the Carpet Industry

November 22, 2013

Notes	Potential Industry	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1	**Carpets** (000s $)	24,300,000	24,543,000	24,788,430	25,036,314	25,286,677	25,539,544	25,794,940	26,052,889	26,313,418	26,576,552	26,842,318
2	Percent of Market Covered by Dualcycle Patents	70%	75%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	Addressable Market	17,010,000	18,407,250	19,830,744	20,029,051	20,229,342	20,431,635	20,635,952	20,842,311	21,050,734	21,261,242	21,473,854
3	**Geographic Distribution of Carpet Sales (%)**											
	North America	40%	40%	40%	40%	40%	39%	39%	39%	38%	37%	36%
	Europe	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	Rest of World Total	25%	25%	25%	25%	25%	26%	26%	26%	27%	27%	27%
	Geographic Distribution of Carpet Sales ($)											
	North America	6,804,000	7,362,900	7,932,298	8,011,621	8,091,737	7,968,338	8,048,021	8,128,501	7,999,279	7,866,659	7,730,587
	Europe	5,953,500	6,442,538	6,940,760	7,010,168	7,080,270	7,151,072	7,222,583	7,294,809	7,367,757	7,441,435	7,515,849
	Rest of World Total	4,252,500	4,601,813	4,957,686	5,007,263	5,057,335	5,312,225	5,365,347	5,419,001	5,683,698	5,740,535	5,797,941
4	**Patent Issuance / Discount Factors**											
	US	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
	Europe	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Rest of World - to be Covered by the Dualcycle Patent	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Carpet Industry
November 22, 2013

Notes	Potential Industry		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Patent Risk Adjusted Auto Sales												
	US		5,511,240	5,963,949	6,425,161	6,489,413	6,554,307	6,454,354	6,518,897	6,584,086	6,479,416	6,371,994	6,261,776
	Europe		5,477,220	5,927,135	6,385,500	6,449,355	6,513,848	6,578,987	6,644,776	6,711,224	6,778,336	6,846,120	6,914,581
	Rest of World - to be Covered by the Dualcycle Patent		3,061,800	3,313,305	3,569,534	3,605,229	3,641,282	3,824,802	3,863,050	3,901,681	4,092,263	4,133,185	4,174,517
	Total Patent Adjusted Risk Addressable Market (Carpets)		**14,050,260**	**15,204,389**	**16,380,195**	**16,543,996**	**16,709,436**	**16,858,142**	**17,026,724**	**17,196,991**	**17,350,015**	**17,351,299**	**17,350,874**
5	Penetration Ratio of Dualcycle in Carpets		0	0.05%	0.10%	0.20%	0.40%	0.60%	0.80%	1.00%	1.20%	1.40%	1.60%
	Total Dualcycle Revenue (000s $)		-	7,602	16,380	33,088	66,838	101,149	136,214	171,970	208,200	242,918	277,614
6	Relief from Royalty / Royalty Rate	1.5%											
	Revenues Attributable to Dualcycle Patent ($)		-	114.0	245.7	496.3	1,002.6	1,517.2	2,043.2	2,579.5	3,123.0	3,643.8	4,164.2
	Exchange Rate - USD to Swiss Francs	0.92											
	Revenues Attributable to Dualcycle Patent (Millions of CHF)		-	104.9	226.0	456.6	922.4	1,395.9	1,879.8	2,373.2	2,873.2	3,352.3	3,831.1
7	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales		CHF 8,460,996										
8	Probability of Scenario		5%										
	Probability Adjusted Net Present Value		CHF 423,050										
	Probability Adjusted Net Present Value (Rounded)		**CHF 423,000**										

Note 1 – Total carpet sales in the United States were $8.119 billion in 2012.[28] I multiplied this number by three to take into account Europe and the Rest of the World.

Note 2 – IncreMental Advantage estimates.

Note 3 – IncreMental Advantage estimates.

Note 4 – Please see Patent-Specific Discount Analysis on page 48.

Note 5 - IncreMental Advantage estimates.

Note 6 – Please see Royalty Rate Analysis beginning on page 75.

Note 7 – Please see Discount Rate Analysis beginning on page 84.

Note 8 – ABC management indicated to me that the carpet producers may not want to become too involved with recycling too quickly. It seems that requiring carpet manufacturers to recycle would be a cost for the carpet producers which they would resist. It also seems that the carpet producer industry is highly fragmented. I think the likelihood of penetrating this market is small.

2828 http://www.fcnews.net/2013/07/modest-growth-gives-carpet-industry-hope/

Dualcycle in Wheelchairs

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the wheelchair industry.

Gessner Patents
Dualcycle Patent Family Valuation
Application in Wheelchairs
November 22, 2013

Notes	**Potential Industry**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
1	**Wheelchairs** (000s $)	9,000,000	9,090,000	9,180,900	9,272,709	9,365,436	9,459,090	9,553,681	9,649,218	9,745,710	9,843,167	9,941,599
2	Percent of Market Covered by Dualcycle Patents	75%	75%	75%	75%	80%	80%	80%	80%	85%	85%	85%
3	Apportionment of Wheelchair Revenue to Textiles	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	Addressable Market	337,500	340,875	344,284	347,727	374,617	378,364	382,147	385,969	414,193	418,335	422,518
4	**Geographic Distribution of Wheelchairs Sales (%)**											
	North America	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
	Europe	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	Rest of World Total	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
	Geographic Distribution of Wheelchairs Sales ($)											
	North America	135,000	136,350	137,714	139,091	149,847	151,345	152,859	154,387	165,677	167,334	169,007
	Europe	118,125	119,306	120,499	121,704	131,116	132,427	133,752	135,089	144,967	146,417	147,881
	Rest of World Total	84,375	85,219	86,071	86,932	93,654	94,591	95,537	96,492	103,548	104,584	105,629
5	**Patent Issuance / Discount Factors**											
	US	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
	Europe	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Rest of World - to be Covered by the Dualcycle Patent	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
	Patent Risk Adjusted Auto Sales											
	US	109,350	110,444	111,548	112,663	121,376	122,590	123,816	125,054	134,198	135,540	136,896
	Europe	108,675	109,762	110,859	111,968	120,627	121,833	123,051	124,282	133,370	134,704	136,051
	Rest of World - to be Covered by the Dualcycle Patent	60,750	61,358	61,971	62,591	67,431	68,105	68,787	69,474	74,555	75,300	76,053

Gessner Patents
Dualcycle Patent Family Valuation
Application in Wheelchairs
November 22, 2013

Notes	Potential Industry		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Total Patent Adjusted Risk Addressable Market		**278,775**	**281,563**	**284,378**	**287,222**	**309,434**	**312,528**	**315,654**	**318,810**	**342,123**	**345,544**	**349,000**
6	Penetration Ratio of Dualcycle in Wheelchairs		0	0.5%	0.75%	1.0%	1.5%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%
	Total Dualcycle Revenue (000s $)		-	1,408	2,133	2,872	4,642	6,251	9,470	12,752	17,106	20,733	24,430
7	Relief from Royalty / Royalty Rate	1.5%											
	Revenues Attributable to Dualcycle Patent ($)		-	21.1	32.0	43.1	69.6	93.8	142.0	191.3	256.6	311.0	366.4
	Exchange Rate - USD to Swiss Francs	0.92											
	Revenues Attributable to Dualcycle Patent (Millions of CHF)		-	19.4	29.4	39.6	64.1	86.3	130.7	176.0	236.1	286.1	337.1
8	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales		CHF 680,226										
9	Probability of Scenario		10%										
	Probability Adjusted Net Present Value		CHF 68,023										
	Probability Adjusted Net Present Value (Rounded)		**CHF 68,000**										

Note 1 – Wheelchairs generated $3.0 billion in revenue in the United States in 2012.[29] I multiplied this number by three to take into account Europe and the Rest of the World.

Notes 2-4 – InceMental Advantage estimates.

Note 5 – Please see Patent-Specific Discount Analysis on page 48.

Note 6 - IncreMental Advantage estimates.

Note 7 – Please see Royalty Rate Analysis beginning on page 75.

Note 8 – Please see Discount Rate Analysis beginning on page 84.

Note 9 – There is some degree of concentration among the medical equipment suppliers. Thus, if ABC were able to execute a licensing agreement with one of the large distributors, the targets forecasted in this model could be reached.

[29] http://www.ibisworld.com/industry/wheelchair-manufacturing.html

Dualcycle in Wound Care

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the Wound Care industry.

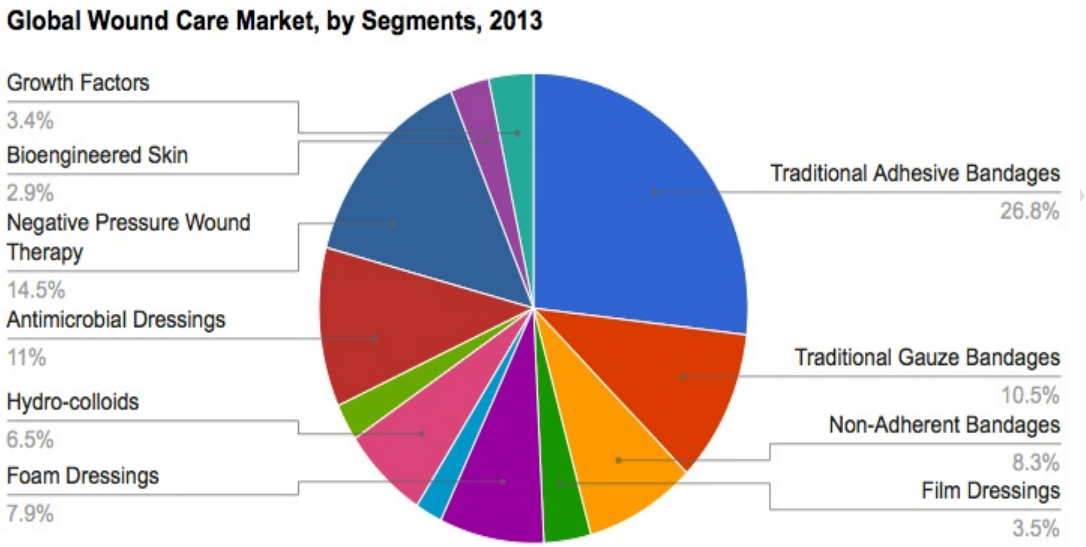
Gessner Patents
Dualcycle Patent Family Valuation
Application in the Wound Care Industry
November 22, 2013

Notes	Potential Industry	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1	**Wound Care** (000s $)	5,744,700	6,146,829	6,577,107	7,037,505	7,530,130	8,057,239	8,621,246	9,224,733	9,870,464	10,561,397	11,300,694
2	Percent of Market Covered by Dualcycle Patents	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
3	Apportionment of Textiles to Wound Care Addressable Market	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
		732,449	783,721	838,581	897,282	960,092	1,027,298	1,099,209	1,176,153	1,258,484	1,346,578	1,440,839
4	**Geographic Distribution of Wound Care Sales (%)**											
	North America	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
	Europe	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	Rest of World Total	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
	Geographic Distribution of Wound Care Sales ($)											
	North America	292,980	313,488	335,492	358,913	384,037	410,919	439,684	470,461	503,394	538,631	576,335
	Europe	256,357	274,302	293,503	314,049	336,032	359,554	384,723	411,654	440,469	471,302	504,293
	Rest of World Total	183,112	195,930	209,645	224,320	240,023	256,824	274,802	294,038	314,621	336,645	360,210
5	**Patent Issuance / Discount Factors**											
	US	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
	Europe	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Rest of World - to be Covered by the Dualcycle Patent	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
	Patent Risk Adjusted Auto Sales											
	US	237,314	253,926	271,700	290,719	311,070	332,845	356,144	381,074	407,749	436,291	466,832
	Europe	235,849	252,358	270,023	288,925	309,149	330,790	353,945	378,721	405,232	433,598	463,950
	Rest of World - to be Covered by the Dualcycle Patent	131,841	141,070	150,945	161,511	172,816	184,914	197,858	211,708	226,527	242,384	259,351

Gessner Patents
Dualcycle Patent Family Valuation
Application in the Wound Care Industry
November 22, 2013

Notes	Potential Industry		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Total Patent Adjusted Risk Addressable Market		**605,003**	**647,353**	**692,668**	**741,155**	**793,036**	**848,548**	**907,946**	**971,503**	**1,039,508**	**1,112,273**	**1,190,133**
6	Penetration Ratio of Dualcycle in Wound Care		0	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
	Total Dualcycle Revenue (000s $)		-	3,237	6,927	11,117	15,861	21,214	27,238	34,003	41,580	50,052	59,507
7	Relief from Royalty / Royalty Rate	1.5%											
	Revenues Attributable to Dualcycle Patent ($)		-	48.6	103.9	166.8	237.9	318.2	408.6	510.0	623.7	750.8	892.6
	Exchange Rate - USD to Swiss Francs	0.92											
	Revenues Attributable to Dualcycle Patent (Millions of CHF)		-	44.7	95.6	153.4	218.9	292.7	375.9	469.2	573.8	690.7	821.2
8	Discount Rate	9%											
	Net Present Value of Dualcycle Due from Auto Sales		CHF 1,852,228										
9	Probability of Scenario		15%										
	Probability Adjusted Net Present Value		CHF 277,834										
	Probability Adjusted Net Present Value (Rounded)		**CHF 278,000**										

Note 1 – Worldwide revenues derived by the wound care management industry reached $11.7 billion in 2012.[30] However, not all of this revenue is addressable by Dualcycle. My understanding is that the segments on the right side of the pie graph below are addressable by Dualcycle. These categories represent 49.1% of the addressable market or $5.7 billion. The same source (28 above) reported that the wound care industry would grow at a 7% annual rate until 2021.



Notes 2-4 – InceMental Advantage estimates.

Note 5 – Please see Patent-Specific Discount Analysis on page 48.

Note 6 - IncreMental Advantage estimates.

Note 7 – Please see Royalty Rate Analysis beginning on page 75.

Note 8 – Please see Discount Rate Analysis beginning on page 84.

Note 9 – There is some degree of concentration among the medical equipment suppliers. Thus, if ABC were able to execute a licensing agreement with one of the large distributors, the targets forecasted in this model could be reached.

[30] http://blog.mediligence.com/2013/06/10/wound-management-an-18-5-billion-worldwide-market-in-2021/

Dualcycle in Camouflage Uniforms

Below is my analysis for the valuation of the Dualcycle patent family (together with an explanation and sourcing of notes) in relation to commercialization in the camouflage uniform industry.

Gessner Patents
Dualcycle Patent Family Valuation
Application Camouflage Uniforms
November 22, 2013

Notes	**Potential Industry**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
	Active Military Personnel											
1	Switzerland	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000
2	Other Addressable Markets	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000
	Total Active Military Personnel	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**	**132,000**
3	Percent of Active Military Personnel Needing Camouflage	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
	Number of Soldiers Needing Camouflage	99,000	99,000	99,000	99,000	99,000	99,000	99,000	99,000	99,000	99,000	99,000
4	Number of Camouflage Uniforms per Soldier	7	7	7	7	7	7	7	7	7	7	7
	Total Number of Addressable Uniforms	693,000	693,000	693,000	693,000	693,000	693,000	693,000	693,000	693,000	693,000	693,000
5	Square Meters per Uniform	7	7	7	7	7	7	7	7	7	7	7
	Total Addressable Sq. Meters of Dualcycle - Uniforms	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**	**4,851,000**
6	Price per Square Meter of Dualcycle (€)	12.0	12.1	12.2	12.4	12.5	12.6	12.7	12.9	13.0	13.1	13.3
7	Patent Risk Discount	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
	Patent Risk Adjusted Addressable Revenue (€)	53,555,040	54,090,590	54,631,496	55,177,811	55,729,589	56,286,885	56,849,754	57,418,252	57,992,434	58,572,359	59,158,082
8	Market Penetration	0.0%	2.0%	6.0%	9.0%	12.0%	15.0%	18.0%	21.0%	24.0%	27.0%	30.0%
	Anticipated License Revenue (€)	**0**	**1,081,812**	**3,277,890**	**4,966,003**	**6,687,551**	**8,443,033**	**10,232,956**	**12,057,833**	**13,918,184**	**15,814,537**	**17,747,425**
9	Relief from Royalty / Royalty Rate	1.5%										
	Revenues Attributable to Dualcycle Patent (€)	**0**	**16,227**	**49,168**	**74,490**	**100,313**	**126,645**	**153,494**	**180,867**	**208,773**	**237,218**	**266,211**
	Exchange Rate - Euro to CHF	1.24										
	Revenues Attributable to Dualcycle Patent (CHF)	**0**	**20,122**	**60,969**	**92,368**	**124,388**	**157,040**	**190,333**	**224,276**	**258,878**	**294,150**	**330,102**
10	Discount Rate	9%										
	Net Present Value of Dualcycle Due from Auto Sales	CHF 891,980										
11	Probability of Scenario	20%										
	Probability Adjusted Net Present Value	CHF 178,396										
	Probability Adjusted Net Present Value (Rounded)	**CHF 178,000**										

Note 1 – According to Wikipedia, there are 22,000 active military personnel in Switzerland. I am modeling in no growth in the number of active military personnel in Switzerland as overall population growth is expected to be anemic to negative.

Note 2 – Most militaries give preference to national suppliers. A condition for supplying one military's uniforms may be disclaiming sales to other militaries. I am modeling that the addressable market will be isolated to Europe and that the addressable market (beyond the Swiss military) is five times the size of the Swiss military. I am modeling in no growth in the number of active military personnel in the addressable European market as overall population growth is expected to be anemic to negative.

Notes 3-4 – IncreMental Advantage estimates.

Notes 5 – ABC estimates adjusted by IncreMental Advantage to take into account larger size uniforms.

Note 6 – IncreMental Advantage estimates.

Note 7 - Please see Patent-Specific Discount Analysis on page 48.

Note 8 – IncreMental Advantage estimates.

Note 9 – Please see Royalty Rate Analysis beginning on page 75.

Note 10 – Please see Discount Rate Analysis beginning on page 84.

Note 11 – ABC has already had preliminary discussions with the Swiss military. Thus, I believe the probability of this scenario occurring is relatively high.

Dualcycle's Locking Feature

Below is my analysis for the valuation of the Dualcycle patent family—together with an explanation and sourcing of notes—in relation to Dualcycle's locking feature.

Note 1 – As the chart on the bottom of the following page indicates, I calculated the volume of square meters of Dualcycle that is expected to be sold into the various end markets. I estimate that the average life of Dualcycle will be eight years. Thus, for example, Dualcycle fabrics sold in 2014 will be recycled in 2021.

Note 2 – I believe that a 35% recycling rate is a reasonable assumption. While there are some laws in place in Europe that require the environmentally sound disposal or recycling of certain textiles, recycling outside of Europe will be less common. Also, the 35% recycling rate is meant to take into account some recycling from end markets—e.g. carpets, wheelchairs, wound care, fireproof suits and soundproof building materials—for which I was not able to calculate the volume of Dualcycle fabric sales. Finally, the 35% recycling rate is meant to take into account the uncertainty regarding whether or not charging a royalty for unlocking Dualcycle's textile lock (after a royalty was initially charged for the use of the Dualcycle fabric) will violate the patent exhaustion issue.

Here is one positive analysis on the ability to use the Dualcycle patent for recycling textiles without violating the patent exhaustion doctrine:

"….True, the purchaser would not be able to utilize the full value of the textile without being able to recycle it, but one can fairly assume that a buyer would not knowingly pay premium for the ability to recycle the textile without acquiring the right to recycle the textile. In that sense, the patentee did not receive its "reward" for the process patent from the sale of the textile and, thus, the process patent would not be exhausted."[31]

However, concern has also been expressed about the patent exhaustion issue:

"Once there is a sale of an object that embodied one or more patents, I would argue that the patents have all been exhausted. A patentee would be hard-pressed to show which patent's benefit the buyer paid for without an express writing with that buyer." [29]

Note 3 – ABC estimates.

Note 4 – As of 2014, ABC estimates that companies could receive €0.60 per square meter of textiles recycled. Over eight years, this amount will rise to €0.70 by 2021, assuming prices rise 2% per year. ((0.6)*(1.02)^8) In view of such recycling companies standing to benefit from other government incentives, I added another €0.05.

Note 5 – I am modeling a large royalty rate to take into account that recycling licensees will not be able to practice the invention without using the Dualcycle patent and textile recyclers' entire business is based on recycling.

Note 6 – Please see Discount Rate Analysis beginning on page 84.

[31] http://www.linkedin.com/groups/Possible-Patent-Exhaustion-3844194.S.580737450149468160 2?qid=68485be8-0a48-443f-a19a-e3eac5490532&trk=groups_most_recent-0-b-ttl&goback=.gsm_3844194_1_*2_*2_*2_lna_PENDING_*2.gmr_3844194

Gessner Patents
Dualcycle Patent Family Valuation
Value from Locking Function
November 22, 2013

Notes			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	Total Volume of Dualcycle Sold (Square Meters)		11,972,790	16,019,463	20,615,143	25,786,172	obsolescence							
2	Percentage of Dualcycle Recovered		35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	Volume Recovered (Square Meters)		27,017	75,805	197,559	549,808	1,270,530	2,068,139	2,822,865	4,190,477	5,606,812	7,215,300	9,025,160	0
3	Kilograms per Square Meter of Cradura		0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.255
	Volume of Cradura Recovered (Kg)		**6,889**	**19,330**	**50,377**	**140,201**	**323,985**	**527,375**	**719,830**	**1,068,572**	**1,429,737**	**1,839,902**	**2,301,416**	**0**
4	Value of Recovery (€ / Kg)		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
5	Royalty Rate		10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Royalty Revenues		**519**	**1,456**	**3,793**	**10,557**	**24,396**	**39,711**	**54,203**	**80,463**	**107,659**	**138,544**	**173,296**	**0**
6	Discount Rate	9%												
	Net Present Value	€ 162,433												
	Exchange Rate	1.24												
	Net Present Value of the Dualcycle Lock	**CHF 201,417**												

Gessner Patents
Dualcycle Patent Family Valuation
Value from Locking Function
November 22, 2013

Square Meters of Dualcycle Sold

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Automobiles	0	0	199,659	923,048	2,625,392	4,425,013	6,234,985	8,809,107	12,294,420	16,268,075	20,745,049
Furniture	24,000	136,000	254,000	481,000	721,500	1,082,250	1,307,813	1,580,766	1,882,680	2,242,843	2,672,581
Airplanes		0	2,274	2,424	6,439	10,372	14,357	18,393	22,480	26,619	30,808
Buses, Trains, Ships	53,191	80,585	108,521	164,409	276,756	391,333	508,173	627,312	748,782	872,619	998,858
Carpets	indeterminable										
Wheelchairs											
Wound Care											
Camouflage Uniforms	0	89,258	267,775	401,663	535,550	669,438	803,326	937,213	1,071,101	1,204,988	1,338,876
Other											
Total Volume of Dualcycle Sold	**77,191**	**305,843**	**832,229**	**1,972,543**	**4,165,637**	**6,578,406**	**8,868,653**	**11,972,790**	**16,019,463**	**20,615,143**	**25,786,172**

There are a host of other potential markets that may have an interest in licensing Dualcycle. Among such markets identified by ABC are fireproof suits; soundproofed building materials; and, lying surfaces such as gurneys and bedding for healthcare applications. I have not been able to locate sufficient and reliable data to build models for such potential applications. Also, there is some real option value associated with a foundational invention that could meet demand in applications beyond those contemplated by ABC or IncreMental Advantage. I am modeling that the combined value related to the Dualcycle patent family for the aforementioned identified and unidentified applications is CHF 400,000 which is less than the calculated value of CHF 423,000 for carpeting (which was given only a 5% probability of being realized).

CONCLUSION OF VALUE OF THE DUALCYCLE PATENT FAMILY

My conclusion of Fair Value for the Dualcycle patent family is CHF 4.3 million. The delineation of this valuation is illustrated below.

Gessner Patents Valuation of the Dualcycle Patent Family Summary of Value November 22, 2013	
Automobiles	1,281,162
Furniture	1,295,293
Airplanes	8,104
Buses, Trains, Ships	124,745
Carpets	423,050
Wheelchairs	68,023
Wound Care	277,834
Camouflage Uniforms	178,396
Other	400,000
Lock	201,417
Total NPV of Dualcycle	4,258,024
Total NPV of Dualcycle (Rounded)	**CHF 4,300,000**

ROYALTY RATE ANALYSIS

I conducted a thorough search for licensing agreements that could be considered comparable to the invention covered by the subject patent families. I used a variety of search terms—including "textiles", "fabrics", "seating" and "yarns"—which generated more than 35 results. (See Exhibit E for summaries of these search results.[32]) I reviewed those licensing agreements that could be similar to those which ABC may execute in connection with the subject patent families.

However, I do not believe than any of these licensing agreements are comparable to licensing agreements that could be based on the Longlife or Dualcycle patents. Quite a few of these licensing agreements dated back to the 1990s. Others were trademark licenses. Another problem with the retrieved "comparable" licensing agreements is that they covered technologies—such as medical instruments—remote from textiles. Many of the retrieved licensing agreements contained several factors that rendered them not truly comparable to licenses that could be based on the Longlife or Dualcycle patents. One reason that could explain the lack of comparable licensing agreements is the uniqueness of the subject patent families.

In view of the lack of comparable licensing agreements, I took a three-pronged approach to determining projected royalty rates. Namely, I derived royalty rates based on Black-Scholes Option Analysis; considered the 15 Georgia-Pacific factors; and, applied two permutations of the Kammerer and Lu royalty calculation.[33]

Black-Scholes Implied Royalty Rate Calculation

Below is the Black-Scholes Implied Royalty Rate Calculation. The formula for this permutation of Black-Scholes is provided in Exhibit D.

Valuation of the Gessner Patents		
Black-Scholes for Royalty Rate Calulation		
November 22, 2013		
Notes		
1	Long-Term Operating Profit Ratio of Commercializer	6.3%
2	Volatility (Industry)	48.2%
3	Remaining Life of Patent / Technology	10
4	Risk Free Rate	2.99%
	Implied Royalty Rate	**1.8%**

Below are notes related to the above references.

[32] Synopses of the referenced licensing agreements were provided to EGLI Patentwalte.

[33] To learn more about the Kammerer and Lu method of calculating royalties, please see the Licensing Executive Society's Insights magazine, May 15, 2012.

Note 1 – As can be seen below, I reviewed the long-term average operating margin history of four comparable publicly-traded companies as well as ABC's estimates of its EBIT. The data relative to Lear Corporation pertains to its seating division. I weighted Lear Corporation's operating profit margin most heavily in view of its being the most suitable potential licensee. I used the resulting calculation of 6.3% as a proxy for the long-term operating profit ratio of the anticipated licensees.

Valuation of the Gessner Patents
Peer Group Operating Margins
November 22, 2013

Peer	Symbol	Operating Margins			Three-Yr.	
		2010	2011	2012	Average	Weight
Gabriel Holdings	GABR	1.0%	4.7%	7.5%	4.4%	0.5
Graemer AG	GMM	3.5%	4.5%	4.1%	4.1%	0.5
Lear Corporation	LEA	7.0%	6.4%	6.0%	6.5%	2
The Dixie Group	DXYN	-1.1%	2.1%	0.7%	0.6%	0.5
Gessner Projected EBIT					11.0%	1
Cumulative Three Year Weighted Average of Gessners Projected EBIT and Peer Operating Margins						**6.3%**

Note 2 – I used the Rule of 16 Method to calculate the volatility of recent stock market performance of four comparable publicly-traded companies. The four comparables I used were Gabriel Holdings (Nordic: GABR), Grammer AG (Frankfurt: GMM), Lear Corporation (NYSE: LEA), and The Dixie Group (NASDAQ: DXYN). I assigned a weighting of 2 to Lear Corporation as this company is the most likely licensee. I added a 20% premium to the volatility calculations due to the fact that the subject patent families are much less liquid than shares of publicly-traded comparables.[34] For synopses of the four comparable companies, please see Exhibit C.

[34] Note: The presentation of the dates of the comparable stock prices is in American format. That is month / day / year.

Valuation of the Gessner Patents
November 22, 2013
Calculation of Volatility

Gabriel Holdings			Absolute	Grammer AG			Absolute	Lear Corporation			Absolute	The Dixie Group			Absolute
Date	GABR (Nordic)	Change	Change	Date	GMM (Frankfurt)	Change	Change	Date	LEA (NYSE)	Change	Change	Date	DXYN (NASDAQ)	Change	Change
11/7/2013	kr. 141.00	-1.40%	1.40%	11/7/2013	35.460 €	0.02%	0.02%	11/7/2013	$77.06	-1.22%	1.22%	11/7/2013	$12.57	0.16%	0.16%
11/6/2013	kr. 143.00	0.00%	0.00%	11/6/2013	35.453 €	1.37%	1.37%	11/6/2013	$78.01	-0.62%	0.62%	11/6/2013	$12.55	0.32%	0.32%
11/5/2013	kr. 143.00	0.00%	0.00%	11/5/2013	34.974 €	-0.50%	0.50%	11/5/2013	$78.50	-0.17%	0.17%	11/5/2013	$12.51	-0.32%	0.32%
11/4/2013	kr. 143.00	0.70%	0.70%	11/4/2013	35.150 €	0.72%	0.72%	11/4/2013	$78.63	1.35%	1.35%	11/4/2013	$12.55	2.95%	2.95%
11/1/2013	kr. 142.00	0.35%	0.35%	11/1/2013	34.900 €	2.36%	2.36%	11/1/2013	$77.58	0.25%	0.25%	11/1/2013	$12.19	-3.25%	3.25%
10/31/2013	kr. 141.50	-0.35%	0.35%	10/31/2013	34.094 €	3.47%	3.47%	10/31/2013	$77.39	0.77%	0.77%	10/31/2013	$12.60	-2.85%	2.85%
10/30/2013	kr. 142.00	-0.35%	0.35%	10/30/2013	32.950 €	-0.78%	0.78%	10/30/2013	$76.80	-0.21%	0.21%	10/30/2013	$12.97	16.85%	16.85%
10/29/2013	kr. 142.50	1.79%	1.79%	10/29/2013	33.210 €	-1.70%	1.70%	10/29/2013	$76.96	-0.10%	0.10%	10/29/2013	$11.10	0.63%	0.63%
10/28/2013	kr. 140.00	-1.41%	1.41%	10/28/2013	33.785 €	2.22%	2.22%	10/28/2013	$77.04	-0.21%	0.21%	10/28/2013	$11.03	3.18%	3.18%
10/25/2013	kr. 142.00	0.00%	0.00%	10/25/2013	33.052 €	0.96%	0.96%	10/25/2013	$77.20	32.21%	32.21%	10/25/2013	$10.69	0.28%	0.28%
10/24/2013	kr. 142.00			10/24/2013	32.738 €			10/24/2013	$58.39			10/24/2013	$10.66		

	GABR	GMM	LEA	DXYN
Volatility	0.64%	1.41%	3.71%	3.08%
Weightings	1	1	2	1

Weighted Average Volatility of Comparables 2.5%

	Un-Weighted	Weighted
Industry Average Daily Change in Stock Prices	**1.92%**	**2.5%**
Rule of 16	**16**	**16**
Volatility Premium	**120%**	**120%**
Volatility	**36.8%**	**48.2%**

Valuation of the Gessner Patents
November 22, 2013
Calculation of Volatility Premium

	Premia
Lack of Comps	0%
Public-Private differential	20%
Total Volatility Premium	**20%**

Note 3 – Given the difficulty of designing around the subject patent families, I believe that the useful life of the subject patent families is ten years.

Note 4 – Given my estimates of the life of the patent families of 10 years, I blended the yields on the 10-year US government bond and Euro area 10-year bond according to (initial) expectations for distribution of revenues. As of November 7, 2013, the yield on 10-year US government bonds was 2.6%.[35] According to the European Central Bank, the average yield on the Euro area 10-year government benchmark bonds (A rated) was 3.16% in October of 2013.[36]

Valuation of the Gessner Patents
Risk-Free Rate Calculations
November 22, 2013

	Notes	Apportionment of Revenues	Yield on 10-Year Government Bonds
Europe	1	70%	3.16%
USA	2	30%	2.60%
Blended Yield on 10 Year Government Bonds			**2.99%**

Georgia-Pacific Analysis

The application of the Georgia-Pacific factors are a cornerstone of determining reasonable royalty rates in connection with patent infringement. The 15 Georgia-Pacific factors provide a reasoned list of issues to consider when determining a reasonable royalty rate for licensing agreements as well as settlements relating to patent infringement. Analysts are free to consider the Georgia-Pacific factors in any order they choose and may weight selected Georgia-Pacific factors at their own discretion. Analysts are not required to consider all of the Georgia-Pacific factors. It does not appear that any litigation has relied on all 15 factors.[37]

[35] http://finance.yahoo.com/bonds
[36] http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=143.FM.M.U2.EUR.4F.BB.U2_10Y.YLD&
[37] Patent Valuation, Wiley Finance, William J. Murphy, et al.

GP Factor	Description of the Georgia-Pacific Factors	Comments
1.	The royalties received by licensor for licensing the patent, proving or tending to prove an established royalty.	ABC has not licensed out the patents under review. However, ABC's management has conducted business with its distributors (e.g. Lantal) and its representatives (e.g. Ms. Annette Schulz in the USA). ABC has held discussions with potential commercializers on the subject of licensing out its patent families. Some of these discussions have occurred with automakers including Daimler and BMW. Based on its business history and its discussions about upcoming commercialization efforts, Mr. Baumeler intimated to me that initial royalty rates approximating 10% and eventual royalty rates approximating 1% (when volumes ramp up) are feasible. **Conclusion:** The importance of Georgia-Pacific factor number 1 is diluted due to the preliminary nature of such discussions. In other words, there is a big difference between royalty rates discussed at early meetings and royalty rates that surface in the aftermath of intense negotiations. A 10% royalty rate is not supported by the margins of the textile industry nor even of one of the largest potential licensees (i.e. Lear Corporation).
2.	The rates paid by the licensee for the use of other similar patents.	To my knowledge, ABC has not licensed in any similar patents. Thus, Georgia-Pacific factor number 2 is not relevant. **Conclusion:** Georgia-Pacific factor number 2 has no bearing on the royalty rate.
3.	The nature and scope of the license, such as whether it is exclusive or nonexclusive, restricted or nonrestricted in terms of territory or customers.	It is most likely that, to the extent that licensing of the subject Patent Families occurs, such licensing agreements will be executed with a variety of licensees. Some of these licensees will license the Dualcycle patents and some of the licensees will license the Longlife patents. Some licensing rights will be granted for limited and specified geographic regions and others will be limited to specific fields of use. For instance, even in connection with its long-time transportation distributor, Lantal, ABC would like to peel away Lantal's nautical field of use rights. Also, in relation to camouflage fatigues, it is reasonable to assume that local licensees will have more success selling Dualcycle given that most military procurement policies favor national producers. **Conclusion:** The licensing rights that could be granted to any particular licensee could be relatively narrow. Thus, Georgia-Pacific factor number 3 would militate towards lower royalty rates.

4.	Georgia-Pacific's policy of maintaining its patent monopoly by licensing the use of the invention only under special conditions designed to preserve the monopoly.	To my knowledge, ABC has no history of attempting to license out its patents. However, ABC is very receptive to licensing out the subject Patent Families. **Conclusion:** Georgia-Pacific factor number 4 favors slightly lower royalty rates since ABC is not covetous of maintaining exclusive rights to the subject patents.
5.	The commercial relationship between Georgia-Pacific and licensees, such as whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.	The vast majority of ABC's revenue is derived from selling textiles beyond the scope of the subject patents. It is possible that some of the potential licensees could be, or could become, competitors for other lines of business pursued by ABC. Thus, ABC would be cautious about entering into favorable licensing agreements with such companies since doing so could conceivably result in related profits earned by such licensees / competitors being directed against other of ABC's business endeavors. **Conclusion:** Georgia-Pacific factor number 5 suggests an upward bias in the royalty rate.
6-7.	The effect of selling the patented specialty in promoting sales of other Georgia-Pacific products. The existing value of the invention to Georgia-Pacific as a generator of sales of nonpatented items. The extent of such derivative or "convoyed" sales.	ABC has a broad portfolio of textiles. It is reasonable to believe that ABC would desire to achieve higher penetration of its customers' expenditures on textiles. Thus, it is conceivable that ABC could implicitly make its patented technologies available to licensees at attractive rates in order to ingratiate itself with clients and to achieve higher levels of cross-selling. In other words, the subject patents could be used to derive convoy sales of other of ABC's textiles. **Conclusion:** Georgia-Pacific factor numbers 6-7 suggest a downward adjustment in the royalty rate. In my opinion, these Georgia-Pacific factors deserve a high weighting.
8.	The duration of the patent and the term of the license.	The remaining statutory lives of the subject patents and patent applications is extensive. The useful lives of such technologies should not be materially compressed. For example, in my modeling, I projected that the useful lives will be roughly 10 years. Therefore, ABC would be well served by offering Longlife and Dualcycle on attractive rates so as to secure licensing partners for a long period of time. **Conclusion:** On balance, Georgia-Pacific factor number 8 is suggestive of slight downward pressure in the royalty rate.

9.	The established profitability of the patented product, its commercial success and its current popularity. The utility and advantages of the patent property over any old modes or devices that had been used.	The technologies covered by the subject patents have not been extensively commercialized. Thus, there is no established profitability related to the patents under review. The second part of Georgia-Pacific factor number 9—the utility and advantages of the patent property over any old modes—suggests that the Longlife patent family would add significant value over older modes of climate controlled seating. In my opinion, the Dualcycle offers less original improvement over older modes than does Longlife. See the related "Points of Novelty" discussions with respect to the Longlife and Dualcycle patent families. **Conclusion:** Georgia-Pacific factor number 9 suggests a significant upward bias in the royalty rate for Longlife and an moderate upward bias in the royalty rate for Dualcycle.
10.	The nature of the patented invention, its character in the commercial embodiment owned and produced by the licensor, and the benefits to those who used it.	Similar to Georgia-Pacific factor 9 above, I believe that the benefits of using the technology described in the Longlife patent family would yield significant benefits to end customers. I believe the end user benefit of the Dualcycle patent family is less pronounced. **Conclusion:** Georgia-Pacific factor number 10 suggests an upward bias in the royalty rate for Longlife and a neutral effect for Dualcycle. However, this upward bias in the royalty rate for Longlife must be muted so as to avoid double-counting given that, in this case, factor 10 is a function of factor 9.
11	The extent to which the infringer used the invention and any evidence probative of the value of that use.	There is no known or suspected infringement of the subject patent families. **Conclusion:** Georgia-Pacific factor number 11 is irrelevant in this case.
12.	The portion of the profit or selling price that is customary in the particular business or in comparable businesses.	As illustrated on the Peer Group Operating Margins chart, comparable textile companies and potential licensees do not have large profit margins. Rather, the three-year average operating margins for the four comparable companies was a modest 3.9%. This puts a significant limitation on the ability of potential licensees to pay generous royalty rates.

		Conclusion: Georgia-Pacific factor number 12 places significant downward pressure on royalty rates.
13.	The portion of the realizable profit that should be credited to the invention as distinguished from any nonpatented elements, manufacturing process, business risks or significant features or improvements added by the infringer.	In the case of Longlife, I do not think that much needs to be apportioned away from the patent. However, in the case of Dualcycle, many features promoted in connection with Dualcycle are available on other textiles provided by ABC. Thus, substantial value should be apportioned away from the Dualcycle patent. **Conclusion:** Georgia-Pacific factor number 13 has a neutral to positive impact on the royalty rate for Longlife. This factor has a sizable negative impact on the royalty rate for Dualcycle.
14.	The opinion testimony of qualified experts.	My opinions have been woven into my assessment of the application of the other Georgia-Pacific factors. **Conclusion:** Since the standard of value for the valuation of the Longlife and Dualcycle patents is Fair Value an upward bias is warranted.
15.	The amount that Georgia-Pacific and a licensee would have agreed upon at the time the infringement began if they had reasonably and voluntarily tried to reach an agreement.	This is the context of my analysis above.

Conclusion of the Royalty Rate Analysis

The Black-Scholes Analysis suggests that a 1.8% royalty rate is reasonable. The average of the Kammerer and Lu calculations indicates that a 2.9% royalty rate is reasonable. The average of the royalty rates produced by the Black-Scholes and the Kammerer and Lu methods is 2.4%.

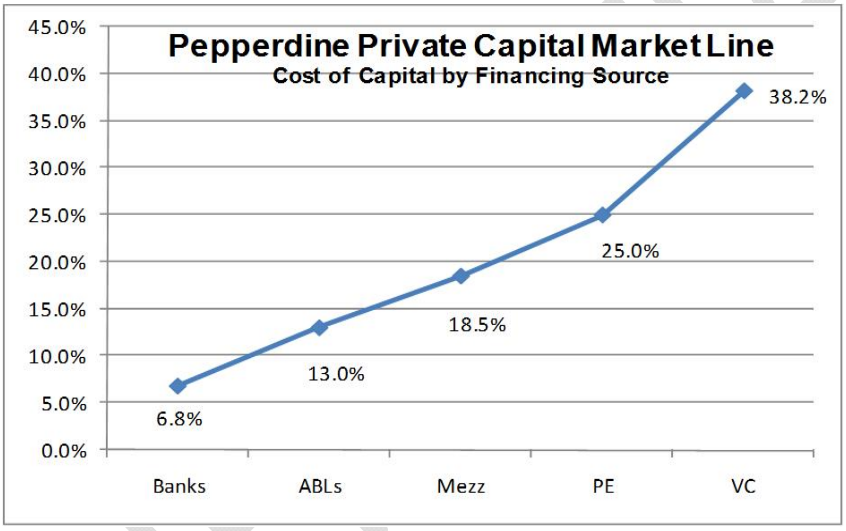
I used the 2.4% royalty as a baseline and then considered the 15 Georgia-Pacific factors. In view of this analysis, it was my conclusion that the royalty rate for the Lifecycle patent family should discounted by 20% while the royalty rate for the Dualcycle patent family should be discounted by 40%. Thus, I believe a royalty rate of 2.0% is appropriate for the Longlife patent family and a royalty rate of 1.5% is appropriate for the Dualcycle patent family.

Gessner Patents				
Royalty Rate Analysis				
November 22, 2013				
Kammerer and Lu				
Permutation 1			**Permutation 2**	
Royalty Rate = 0.0108 + 0.3466*EBITDA Margin			Royalty Rate = 0.4117*EBITDA Margin	
Operating Margins	6.3%		Operating Margins	6.3%
Royalty Rate	3.3%		Royalty Rate	2.6%
Average of the Kammerer and Lu Permutations	2.9%		Black-Scholes Royalty Rate Calculation	1.8%
Average of the Kammerer and Lu and Black-Scholes Royalty Rate Calculations				**2.4%**
Discounts for Georgia-Pacific Factors				
Longlife	20%		Dualcycle	40%
Anticipated Royalty Rates				
Anticipated Royalty Rate - Longlife	1.9%		Anticipated Royalty Rate - Dualcycle	1.4%
Anticipated Royalty Rate - Longlife (Rounded)	**2.0%**		**Anticipated Royalty Rate - Dualcycle (Rounded)**	**1.5%**

DISCOUNT RATE ANALYSIS

For the discount rate analysis, I relied on guidance provided by The Pepperdine Private Capital Market Line Survey of various providers of capital. This survey indicates that commercial banks seek a 6.8% return when they make their capital available. It is my understanding that ABC could obtain capital from commercial banks and thus I believe the 6.8% cost of capital is instructive.

Another lens through which to consider the appropriate discount rate is the "Characterization of Risk Method'. This Method holds that the more sameness there is in implementing a new technology, the less risk there will be. I believe that the in commercializing the Longlife and Dualcycle patents, ABC and its licensees will be able to use the same weaving machines, will make largely the same kinds of products (such as seating) and will market the finished products to largely the same kinds of customers. Due to the similarities in producing Longlife and Dualcycle compared to legacy textiles, a low discount rate is warranted.



In determining the discount rate, I also referred to the National Aeronautics and Space Administration's ("NASA") Technology Readiness Levels ("TRLs"). NASA uses nine TRLs to indicate where its various projects are in the commercialization process. I converted the TRL schedule into a schedule of rates of return. The slope of the rates of return imputed on the chart below approximates guidance provided by the American Institute for Certified Public Accountants in terms of discounts that should be applied to pharmaceuticals making their way through the Food and Drug Administration's approval process. I have submitted this schedule of discount rates for peer review to many sessions of the Valuation of Emerging Technologies course that I teach on behalf of The Business Development Academy.

Based on what was related to me by management, Dualcycle is "mission proven" as it is selling some 2,000 square meters per month. Longlife is near "mission proven". Thus, there implied Discount Rates as per NASA's TRLs would be roughly 8%. As I already applied substantial discounts to both Longlife and Dualcycle in the Income Methods, I believe that a one percentage point premium on the TRLs or a two percentage point premium based on the Pepperdine Private Market Line Survey is sufficient to address any remaining risk in receiving anticipated royalty relief of revenue streams.

NASA TRL	Definition
1	Basic principles observed and reported
2	Technology concept and/or application formulated
3	Analytical and experimental critical function and/or characteristic proof-of-concept
4	Component and/or subsystem validation in laboratory environment
5	Component and/or subsystem validation in relevant environment
6	System/subsystem model or prototype demonstration in a relevant environment
7	System prototype demonstration in an operational environment
8	Actual system completed and "mission qualified" through test and demonstration in an operational environment
9	Actual system "mission proven" through successful mission operations

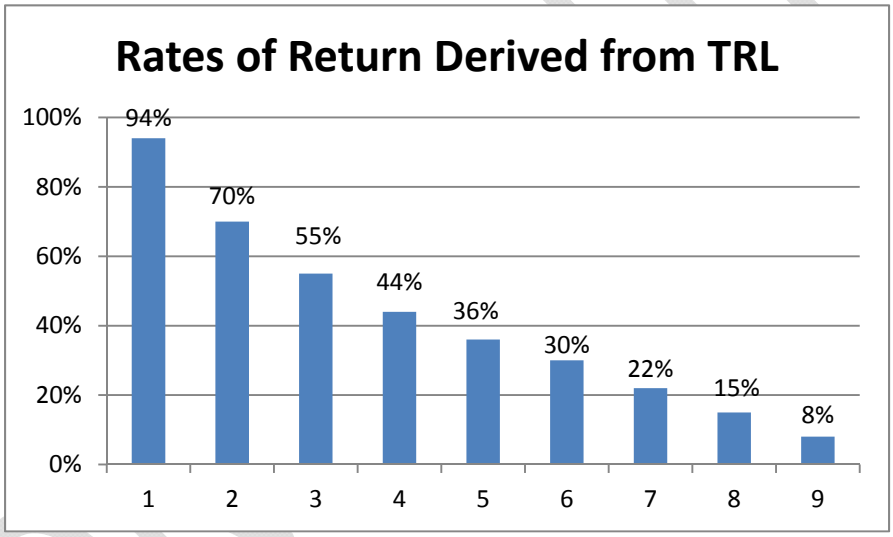


EXHIBIT A

ESTIMATED ISSUANCE OF THE LONGLIFE PATENT FAMILY

Gessner Patents
Longlife Patent Family
November 22, 2013

Estimated Issuance

	2013	2014	2015	2016	2017
Austria					
Switzerland					
Germany					
Spain					
France					
United Kingdom					
Italy					
Netherlands					
Poland					
Sweden					
Turkey					
Bosnia / Herzegovina					
Czech Republic					
Ireland					
Portugal					
United Arab Emirates					
Austalia					
Brazil					
Canada					
China					
India					
Japan					
South Korea					
Mexico					
Malaysia					
Russia					
Singapore					
Thailand					
United States					
South Africa					

EXHIBIT B

ESTIMATED ISSUANCE OF THE DUALCYCLE PATENT FAMILY

Gessner Patents
Dualcycle Patent Family
November 22, 2013

Estimated Issuance

EXHIBIT C

DESCRIPTIONS OF COMPARABLE COMPANIES USED TO CALCULATE THE IMPLIED ROYALTY RATE

Below are brief descriptions of the comparable companies used to calculate the implied royalty rate:

Grammer AG is specialized in developing and manufacturing components and systems for car interiors as well as driver and passenger seats for offroad vehicles, trucks, buses, and trains. Grammer is based in Amberg, Germany.

Kvadrat, based in Denmark, claims to be Europe's leading manufacturer of design textiles.

Lear Corporation's Seating Division In 2012, Lear's Seating division contributed $11.0 billion in revenue or 75.7% of Lear's Company-wide revenues. Lear's sales are well diversified geographically, by customer and by vehicle segment. In 2012, approximately 39% of Lear's sales were generated in North America, 35% in Europe, 17% in Asia and 9% in the rest of the world. Lear's is one of only two primary independent suppliers with global scale and the capability to design, develop, manufacture and deliver complete seat systems and components to every automotive market in the world. The seating segment includes seat systems and related components, such as seat structures and mechanisms, seat covers, headrests and seat foam.

The Dixie Group, Inc. engages in the manufacture, marketing, and sale of carpet and rugs to residential and commercial customers. The company offers residential and specialty carpets and custom rugs; tufted broadloom residential and commercial carpets; and broadloom and modular carpet tiles for commercial markets. It also provides carpet yarn processing, and carpet dyeing and finishing services to other manufacturers. It serves interior decorators and designers, retailers and furniture stores, luxury home builders, manufacturers of luxury motor coaches and yachts, and home centers. The Dixie Group, Inc. was founded in 1919 and is headquartered in Chattanooga, Tennessee.

EXHIBIT D

BLACK-SCHOLES FORMULA

Below is an abbreviated version of the Black-Scholes Model used to calculate the implied royalty rate (discussed on pages 75-77).

The Formula

$$RR = PR \times \frac{N(\sigma\sqrt{T}/2) - N(-\sigma\sqrt{T}/2)}{e^{rT} + [N(\sigma\sqrt{T}/2) - N(-\sigma\sqrt{T}/2)]}$$

Where:
RR is the Royalty Rate as a proportion of sales,
PR is the Profit Ratio or margin on sales,
N(·) is the Normal Distribution Function,
σ is the standard deviation of the market,
T is the life span of the patent, and
r is the Risk-free interest rate.

EXHIBIT E

SUMMARY OF LICENSE COMPARABLE SEARCHES

Source:	ktMINE Royalty Rate Finder
Client:	Gessner
Date:	11/7/2013
Project:	#VALUE!
Description:	Seating
FYE Analysis:	4
Username:	dwanetick@bdacademy.com
Total Agreements Reviewed:	10

Accept/Reject Matrix

#	Agreement ID	Licensor	Licensee	Effective Date	Accept/Reject	Reason
1	11225	Computer Translation Systems & Su	BodyBilt Seating, Inc.	02/18/1997	Rejected	Dated
2	11830	STownhouse-Penthouse Industries	SIMMONS UPHOLSTERE	07/13/1990	Rejected	Dated
3	12139	STownhouse-Penthouse Industries	SIMMONS UPHOLSTERE	07/13/1990	Rejected	Dated
4	27223	PETER GLASS DESIGN LLC, Peter Glas	VIRCO MGMT. CORPOR	12/1/2007	Rejected	Irrelevant
5	27224	HEDGEHOG DESIGN LLC	VIRCO MGMT. CORPOR	12/1/2007	Rejected	Irrelevant
6	42176	Breakaway International, Inc., Gary	NTN Software Solution	07/30/2003	Rejected	Irrelevant
7	62902	Computer Translation Systems & Su	BodyBilt Seating, Inc.	02/18/1997	Rejected	Dated
8	63325	Computer Translation Systems & Su	BodyBilt Seating, Inc.	02/18/1997	Rejected	Dated
9	64977	Dr. Jerome Congleton	Neutral Posture Ergono	09/22/1997	Rejected	Dated
10	67468	SIMMONS COMPANY, SIMMONS UP	SIMMONS UPHOLSTERE	07/13/1990	Rejected	Dated

Source:	ktMINE Royalty Rate Finder
Client:	Gessner
Date:	11/7/2013
Project:	#VALUE!
Description:	Textile
FYE Analysis:	[Blank]
Username:	dwanetick@bdacademy.com
Total Agreements Reviewed:	8

Accept/Reject Matrix

#	Agreement ID	Licensor	Licensee	Effective Date	Accept/Reject	Reason
1	493	BioLargo Technologies, Inc.	Craig Sundheimer, Lloyd M. Jarvis	10/15/2004	Reject	Dated
2	11156	MOSSIMO, INC.	TARGET BRANDS, INC.	03/31/2006	Reject	Trademark
3	11161	MOSSIMO, INC.	TARGET BRANDS, INC.	03/31/2006	Reject	Trademark
4	24168	United American, Inc., Edmund Pennartz	Flameret, Inc.	08/14/2009	Reject	
5	35757	SYNALLOY CORPORATION	GREENVILLE COLORANTS, LLC, BLA	12/23/2004	Reject	
6	50690	MOSSIMO, INC., Mossimo G. Giannulli	TARGET STORES, Target Corporati	03/28/2000	Reject	Trademark
7	60481	DYERSBURG CORPORATION	PT DYERSBURG TEXMACO FLEECE	1998	Reject	Dated
8	80069	United States Naval Research Laboratory	NaturalNano, Inc.	10/2/2007	Reject	

Source:	ktMINE Royalty Rate Finder
Client:	Gessner
Date:	[Date of Export]
Project:	Longlife / DualCycle
Description:	Searched "Fabrics"
FYE Analysis:	[Blank]
Username:	[Email Address of User]
Total Agreements Reviewed:	17

Accept/Reject Matrix

#	Agreement ID	Licensor	Licensee	Effective Date	Accept/Reject	Reason
1	8937	HI-TEX, INC.	QUAKER FABRIC C	11/2005	Reject	
2	60480	DYERSBURG CORPORATION	PT TEXMACO JAYA	1998	Reject	Dated
3	80069	United States Naval Research Laboratory	NaturalNano, Inc.	10/2/2007	Reject	Medical

EXHIBIT F

REVIEW OF GUILFORD MILLS' PATENT PORTFOLIO

Gessner Patents
Review of Guilford Mills' Patents
November 22, 2013

Number	Document	Applicant	Title	Priority Date	Filing Date	Pub Date	Expire Date	Legal
1	US 6291375	GUILFORD MILLS INC	Textile fabric for dissipating electrical charges	10/29/1998	10/29/1998	9/18/2001	10/29/2018	Enforceable
2	US 5560227	GUILFORD MILLS INC	Warp-knitted textile shoe liner having special thickness from three bar construction	1/19/1994	10/23/1995	10/1/1996	10/23/2015	Enforceable
3	US 5461884	GUILFORD MILLS INC	Warp-knitted textile fabric shoe liner and method of producing same	1/19/1994	1/19/1994	10/31/1995	1/19/2014	Enforceable
4	US 5449530	GUILFORD MILLS INC	Method of producing loop-type textile fastener fabric and process of treating same	3/22/1993	4/15/1994	9/12/1995	4/15/2014	Enforceable
5	US 6698252	GUILFORD MILLS INC	Snag-resistant matte-effect warp-knitted textile fabric for activewear apparel	8/6/2001	8/6/2001	3/2/2004	4/22/2008	Not Enforceable
6	US 6410091	GUILFORD MILLS INC	Plastisol-printed dyed polyester fabrics and method of producing same	4/26/1999	4/26/1999	6/25/2002	6/25/2010	Not Enforceable
7	US 6301760	GUILFORD MILLS INC	Method of selectively altering physical properties of an elastane filament	2/14/2000	2/14/2000	10/16/2001	12/13/2005	Not Enforceable
8	US 5996378	GUILFORD MILLS INC	Knitted textile fabric with integrated fluid-containing or -conveying tubular segments	5/20/1998	5/20/1998	12/7/1999	1/24/2012	Not Enforceable
9	US 5855124	GUILFORD MILLS INC	Moldable warp knitted fabric and method of forming a seamless molded fabric portion therefrom	6/26/1997	6/26/1997	1/5/1999	3/6/2007	Not Enforceable
10	US 5746046	GUILFORD MILLS INC	Method for forming comingled composite yarn	8/5/1996	8/5/1996	5/5/1998	6/22/2010	Not Enforceable
11	US 5669247	GUILFORD MILLS INC	Underwire brassiere, warp knitted textile fabric for use in fabricating same, and method of warp knitting such fabric	8/28/1996	8/28/1996	9/23/1997	11/22/2005	Not Enforceable
12	US 5619869	GUILFORD MILLS INC	Warp knitted textile fabric with pattern of pleated fabric sections	3/8/1996	3/8/1996	4/15/1997	6/14/2005	Not Enforceable
13	US 5575162	GUILFORD MILLS INC	Apparatus for controlling twist in a knitted fabric	10/3/1995	10/3/1995	11/19/1996	1/18/2005	Not Enforceable
14	US 5557950	GUILFORD MILLS INC	Warp knitted plush fabric resistant to pile pull-through	6/2/1995	6/2/1995	9/24/1996	11/11/2008	Not Enforceable
15	US 5542269	GUILFORD MILLS INC	Warp knitted fabric with ribbed satin-like back	3/1/1995	3/1/1995	8/6/1996	9/23/2008	Not Enforceable
16	US 5520027	GUILFORD MILLS INC	Apparatus for wet processing of textile fabric	12/20/1993	12/20/1993	5/28/1996	7/27/2004	Not Enforceable
17	US 5513503	GUILFORD MILLS INC	Strand guiding device for circular knitting machines	8/2/1993	8/2/1993	5/7/1996	7/6/2004	Not Enforceable
18	US 5499433	GUILFORD MILLS INC	Apparatus for surface treatment of pile and plush fabrics	12/17/1993	12/17/1993	3/19/1996	5/6/2008	Not Enforceable
19	US 5494205	GUILFORD MILLS INC	Apparatus for festooning a traveling length of web-like material	3/9/1994	3/9/1994	2/27/1996	4/27/2004	Not Enforceable

Gessner Patents
Review of Guilford Mills' Patents
November 22, 2013

Number	Document	Applicant	Title	Priority Date	Filing Date	Pub Date	Expire Date	Legal
1	US 6291375	GUILFORD MILLS INC	Textile fabric for dissipating electrical charges	10/29/1998	10/29/1998	9/18/2001	10/29/2018	Enforceable
2	US 5560227	GUILFORD MILLS INC	Warp-knitted textile shoe liner having special thickness from three bar construction	1/19/1994	10/23/1995	10/1/1996	10/23/2015	Enforceable
3	US 5461884	GUILFORD MILLS INC	Warp-knitted textile fabric shoe liner and method of producing same	1/19/1994	1/19/1994	10/31/1995	1/19/2014	Enforceable
4	US 5449530	GUILFORD MILLS INC	Method of producing loop-type textile fastener fabric and process of treating same	3/22/1993	4/15/1994	9/12/1995	4/15/2014	Enforceable
5	US 6698252	GUILFORD MILLS INC	Snag-resistant matte-effect warp-knitted textile fabric for activewear apparel	8/6/2001	8/6/2001	3/2/2004	4/22/2008	Not Enforceable
6	US 6410091	GUILFORD MILLS INC	Plastisol-printed dyed polyester fabrics and method of producing same	4/26/1999	4/26/1999	6/25/2002	6/25/2010	Not Enforceable
7	US 6301760	GUILFORD MILLS INC	Method of selectively altering physical properties of an elastane filament	2/14/2000	2/14/2000	10/16/2001	12/13/2005	Not Enforceable
8	US 5996378	GUILFORD MILLS INC	Knitted textile fabric with integrated fluid-containing or -conveying tubular segments	5/20/1998	5/20/1998	12/7/1999	1/24/2012	Not Enforceable
9	US 5855124	GUILFORD MILLS INC	Moldable warp knitted fabric and method of forming a seamless molded fabric portion therefrom	6/26/1997	6/26/1997	1/5/1999	3/6/2007	Not Enforceable
10	US 5746046	GUILFORD MILLS INC	Method for forming comingled composite yarn	8/5/1996	8/5/1996	5/5/1998	6/22/2010	Not Enforceable
11	US 5669247	GUILFORD MILLS INC	Underwire brassiere, warp knitted textile fabric for use in fabricating same, and method of warp knitting such fabric	8/28/1996	8/28/1996	9/23/1997	11/22/2005	Not Enforceable
12	US 5619869	GUILFORD MILLS INC	Warp knitted textile fabric with pattern of pleated fabric sections	3/8/1996	3/8/1996	4/15/1997	6/14/2005	Not Enforceable
13	US 5575162	GUILFORD MILLS INC	Apparatus for controlling twist in a knitted fabric	10/3/1995	10/3/1995	11/19/1996	1/18/2005	Not Enforceable
14	US 5557950	GUILFORD MILLS INC	Warp knitted plush fabric resistant to pile pull-through	6/2/1995	6/2/1995	9/24/1996	11/11/2008	Not Enforceable
15	US 5542269	GUILFORD MILLS INC	Warp knitted fabric with ribbed satin-like back	3/1/1995	3/1/1995	8/6/1996	9/23/2008	Not Enforceable
16	US 5520027	GUILFORD MILLS INC	Apparatus for wet processing of textile fabric	12/20/1993	12/20/1993	5/28/1996	7/27/2004	Not Enforceable
17	US 5513503	GUILFORD MILLS INC	Strand guiding device for circular knitting machines	8/2/1993	8/2/1993	5/7/1996	7/6/2004	Not Enforceable
18	US 5499433	GUILFORD MILLS INC	Apparatus for surface treatment of pile and plush fabrics	12/17/1993	12/17/1993	3/19/1996	5/6/2008	Not Enforceable
19	US 5494205	GUILFORD MILLS INC	Apparatus for festooning a traveling length of web-like material	3/9/1994	3/9/1994	2/27/1996	4/27/2004	Not Enforceable

APPENDIX A

ASSUMPTIONS AND LIMITING CONDITIONS

1. Information, estimates, and opinions contained in this report are obtained from sources considered to be reliable. We have not independently verified every piece of data presented by management to us or that we located from external sources. We assume no liability for such sources.

2. Information supplied by management has been accepted as correct without further verification, and we express no opinion on that information.

3. Possession of this report, or copy or electronic version thereof, does not carry with it the right of publication of all or part of it, nor may it be used for any purpose by anyone but the client without the previous written consent of the client or us and, in any event, only with proper attribution.

4. We are not required to give testimony in court or be in attendance during any hearings or depositions, with reference to the patent application being valued.

5. The various estimates of value presented in this report apply to this valuation only and may not be used outside of the context presented herein. This valuation is valid only for the purposes specified herein as of November 22, 2013. Subsequent events have not been considered, and we have no obligation to update our report for such events and conditions.

6. This report was prepared under the direction of David Wanetick. Neither the professionals who worked on this engagement nor the partners of IncreMental Advantage, LLC have any present or contemplated future interest in ABC or any interest that might prevent us from performing an unbiased valuation. Our compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

APPENDIX B

CERTIFICATIONS

We certify that, to the best of our knowledge and belief:

1. The statements of fact in this report are true and correct.

2. The reported analyses, opinions, and conclusions are limited by the reported assumptions and limiting conditions. These limiting conditions include our inability to understand some information relative to ABC AG that is only available in German. The statements made by management of ABC in connection with the preparation of this report have not been independently verified. This Report is a presentation of my personal, unbiased professional analyses, opinions, and conclusions.

3. The analyses, opinions, and conclusions were developed, and this report was prepared in conformity with the teachings of the Certified Patent Valuation Analysts designation.

4. No one provided significant professional assistance to the person signing this report.

5. We had, do not have, and do not anticipate having any financial interest in ABC AG.

APPENDIX C

SOURCES OF INFORMATION RELIED UPON IN THIS VALUATION

External Documents and Sources

1. Interviews with:

    a. Alfred Baumeler, CEO, ABC AG
    b. Stefan Fritz, VP - Strategic Planning, ABC AG
    c. Annette Schulz, American Representative, ABC AG
    d. Richard A. Egli, Founded and Senior Partner, EGLI Patentwalte

2. Information provided by ABC AG. This information is too extensive to recount here but included extensive company, product and industry literature in the form of business plans, brochures, and results from batteries of scientific results.

3. KTMine Royalty Database

4. Internet and other sources as cited throughout this Valuation Report

5. Course materials used in the Certified Patent Valuation Analyst training program

APPENDIX D

CURRICULUM VITAE
DAVID WANETICK

Current Positions

IncreMental Advantage, LLC, Managing Director, Princeton, NJ Since 2005, David Wanetick has been a Managing Director at IncreMental Advantage, a valuation firm with an expertise in valuing intangible assets and emerging technologies. He is involved in all of the firm's valuation and business modeling. Clients include law firms; emerging, mid- and large-sized companies; technology transfer offices; inventors; venture capitalists and private equity firms. Valuations are primarily conducted in the context of negotiating licensing agreements, mergers and acquisitions and litigation support.

Business Model Validation Since 2009, David has been the CEO of Business Model Validation, a firm which develops and reviews sophisticated business models for purposes of raising capital and capital budget allocation.

Certified Patent Valuation Analyst Since 2008, David has developed the curriculum and has run dozens of the courses required for applicants to earn their designations as Certified Patent Valuation Analysts. He works closely with other CPVA board members in terms of updating the course materials and updating the related exam.

Patent Fairness Opinions Since 2011, David has begun formalizing and standardizing the preparation of patent fairness opinions that are used in a wide array of patent-related transactions all over the world.

Previous Positions

Earlier in his career, David was a securities research analyst and was employed by Merrill Lynch, First Albany and wrote his own newsletter, Market Maneuvers. David was the senior analyst for Gateway Memorandums / the Wall Street Transcript for five years.

Previous Valuations

Among the specific technologies, and related patents, and companies that David Wanetick valued are semiconductor equipment; optical inspection; micro electrical mechanical systems; keyboard, video, mouse patents; SIM card technologies; Internet applications; water separation technologies; water carbonation technologies; RF communication links; Internet traffic control technologies; payment processing technologies; Internet search applications; biometrics; electro-magnetic pulse inspection equipment; orthogonal frequency division multiplexing; robotic lawnmowers; immune system biologicals; Bluetooth applications; defibrillators; ocean thermal energy conversion technologies; oil services technologies; loyalty marketing technologies; catalytic heating; trademarks related to specialty apparel; wireless applications; software for schools; audio cables; glucose monitoring test strips; solar power patents; hydraulic fracturing; electrical current management; database software; food processing innovations and personal hygiene products.

Publications – Books

David is the author of three books that have achieved world-wide acclaim, including the only two books that unveil Industry Analysis. These books include Bound for Growth: How to Use Winning Stocks Using Industry Analysis (1997) and Hot Sector Investing: How to Profit from Over 100 Emerging Opportunities (1999). He developed a textbook for his course entitled Valuation of Emerging Technologies.

Publications - Articles

Some of the recent articles written by David Wanetick include:

- Valuation of Patent Applications with Binomial Distribution
- Patent Valuation and Baseball Players
- Costs of Capital - You Can Love More than Just One
- What is the Real Value in Real Options?
- Residual Knowledge Agreements and Neural Prosthetics
- Determining Patent Value Through Claims Analysis
- The Value of Valuing Patents
- How Patent Vulnerability Impacts Valuation
- Strategic Implications of Trade Secrets
- Opening the Kimono on Contract Valuation
- How Sun Tzu Would Outflank Patent Trolls
- The Value of Withheld Indemnifications
- Assessing the Probability of Obtaining a License
- Strategies for Negotiating Licenses
- Winning Negotiations Before They Begin

In addition to dozens of blogs that have published David Wanetick's work, his articles have appeared in:

- Les Nouvelles, published by the Licensing Executive Society
- Intellectual Asset Management
- Patent World
- CEO Magazine
- The CPA Journal
- Licensing Journal
- Willamette Insights

- Valuation Strategies
- Valuation Examiner
- Business Valuation Update
- IP Frontline
- IP Litigator
- Technology Transfer Tactics
- Inventor's Digest
- Private Equity Manager
- Research & Development Magazine
- The Canadian Institute of Chartered Business Valuators

Lecturing

David teaches the following courses through The Business Development Academy:

- Valuation of Emerging Technologies
- Negotiating License Agreements for Maximum Returns
- Financial Modeling and Projections
- Fundamentals of Business Valuation

These courses have been delivered all over the United States (New York City, Princeton, Philadelphia, Boston, Washington DC, Atlanta, Raleigh, Dallas, Miami, Austin, Chicago, Silicon Valley, San Francisco, Seattle, San Diego), in the United Kingdom, Belgium, Germany, the Netherlands, Singapore, Kuwait, Malaysia, India, China, Hong Kong and Israel. Attendees from all over the world have participated via webinar.

Representatives from more than 375 Fortune 500 companies have attended his programs. In addition, he has lectured on the above issues before many organizations and corporations such as the Houston Intellectual Property Lawyers Association; The Northeast Technology Council; The New York Society of Security Analysts; The Toronto Society of Security Analysts; The Montreal Society of Security Analysts; The San Francisco Financial Analysts Society; and, The Boeing Company.

From 1997 – 2004, David taught Industry Analysis at The New York Institute of Finance and at The New York Society of Securities Analysts.

Education

David received his undergraduate degree from Bucknell University in December 1988, where he double majored in economics and political science. He pursued a Masters of Science Degree in Taxation from Pace University from 1989 to 1990.

Certifications

David Wanetick earned his standing as an Accredited Valuation Analyst with the National Association of Certified Valuation Analysts. He is a Certified Patent Valuation Analyst and a Certified Emerging Company Analyst.