



I/P Engine, Inc. v. AOL, Inc. et al

Intellectual Property Analysis of U.S. Patent Nos. 6,775,664 and 6,314,420

November 16, 2012

On September 15, 2011, I/P Engine, Inc. filed a lawsuit in the Eastern District of Virginia accusing five companies of patent infringement. I/P Engine claimed that AOL, Inc.; Google, Inc.; IAC Search & Media, Inc.; Gannett Company, Inc.; and Target Corporation had infringed two patents covering an adaptive search and advertising system. The two patents, which were assigned to I/P Engine in June 2011, originated at Lycos, Inc., an early search engine rival of Yahoo. The patents and on-going lawsuit passed to Vringo, Inc. as a result of a March 2012 merger with Innovate/Protect Inc., the parent of I/P Engine.

On November 6, 2012, a federal court jury ruled that the infringement claims made by I/P Engine were valid. The defendants were ordered to pay Vringo a combined \$30 million in past infringement damages and a 3.5% running royalty.

Using the M-CAM DOORS™ analytic platform, an intellectual property analysis of Vringo's U.S. Patent Nos. 6,775,664 (hereafter '664) and 6,314,420 (hereafter '420) was conducted in order to understand their strength and defensibility in the face of prior and concurrent art innovation. The innovation space surrounding the '664 and '420 patents was examined to determine which patent(s) may provide alternatives to or alter the value of Vringo's properties.

Analysis

Vringo patents listed in litigation:

Document #	Title	Assignee Name	Priority	File	Issue
US 6,775,664	Information filter system and method for integrated content-based and collaborative/adaptive feedback queries	Lycos, Inc.	4-Apr-96	22-Oct-01	10-Aug-04
US 6,314,420	Collaborative/adaptive search engine	Lycos, Inc.	4-Apr-96	3-Dec-98	6-Nov-01

Using M-CAM DOORS, many examples of precedent innovation not cited by the '664 and '420 patents were identified that may limit the strength and breadth of the '664 and '420 patent claims. These documents describe techniques for adaptive search and targeted advertising and therefore may be used to undermine the validity of Vringo's patents. The eight instances listed below have a particularly high amount of conceptual overlap.

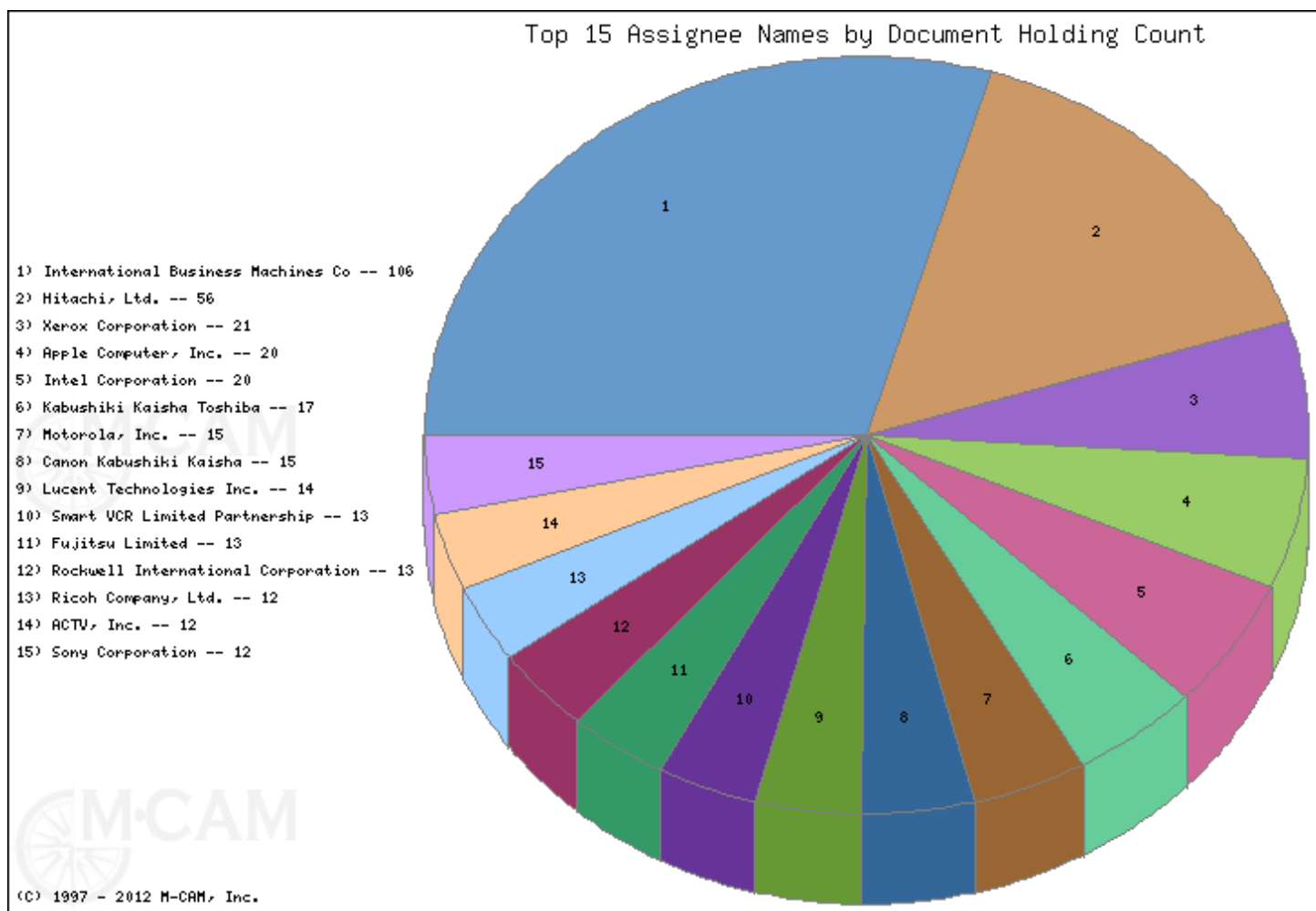
Document #	Title	Assignee Name	Priority	File	Issue
US 5,893,092	Relevancy ranking using statistical ranking, semantics, relevancy feedback and small pieces of text	University of Central Florida	5-Nov-93	23-Jun-97	6-Apr-99
US 5,761,662	Personalized information retrieval using user-defined profile	Sun Microsystems, Inc.	20-Dec-94	8-May-97	2-Jun-98
US 5,761,497	Associative text search and retrieval system that calculates ranking scores and window scores	Reed Elsevier, Inc.	22-Nov-93	7-Jun-95	2-Jun-98
US 5,724,521	Method and apparatus for providing electronic advertisements to end users in a consumer best-fit pricing manner	Intel Corporation	3-Nov-94	3-Nov-94	3-Mar-98

Document #	Title	Assignee Name	Priority	File	Issue
US 5,717,923	Method and apparatus for dynamically customizing electronic information to individual end users	Intel Corporation	3-Nov-94	3-Nov-94	10-Feb-98
US 5,404,514	Method of indexing and retrieval of electronically-stored documents	Karl-Erbo G. Kageneck	26-Dec-89	13-Sep-93	4-Apr-95
US 5,321,833	Adaptive ranking system for information retrieval	GTE Laboratories Incorporated	29-Aug-90	29-Aug-90	14-Jun-94
US 4,823,306	Text search system	International Business Machines Corporation	14-Aug-87	14-Aug-87	18-Apr-89

In addition to the above patents, M-CAM DOORS has identified other documents in the innovation space that may contain critical elements of enabling technologies that predate key aspects of the innovations described in the claims of the '664 and '420 patents and may be of material importance to the litigation. For a sample listing of these findings, please see Appendix A.

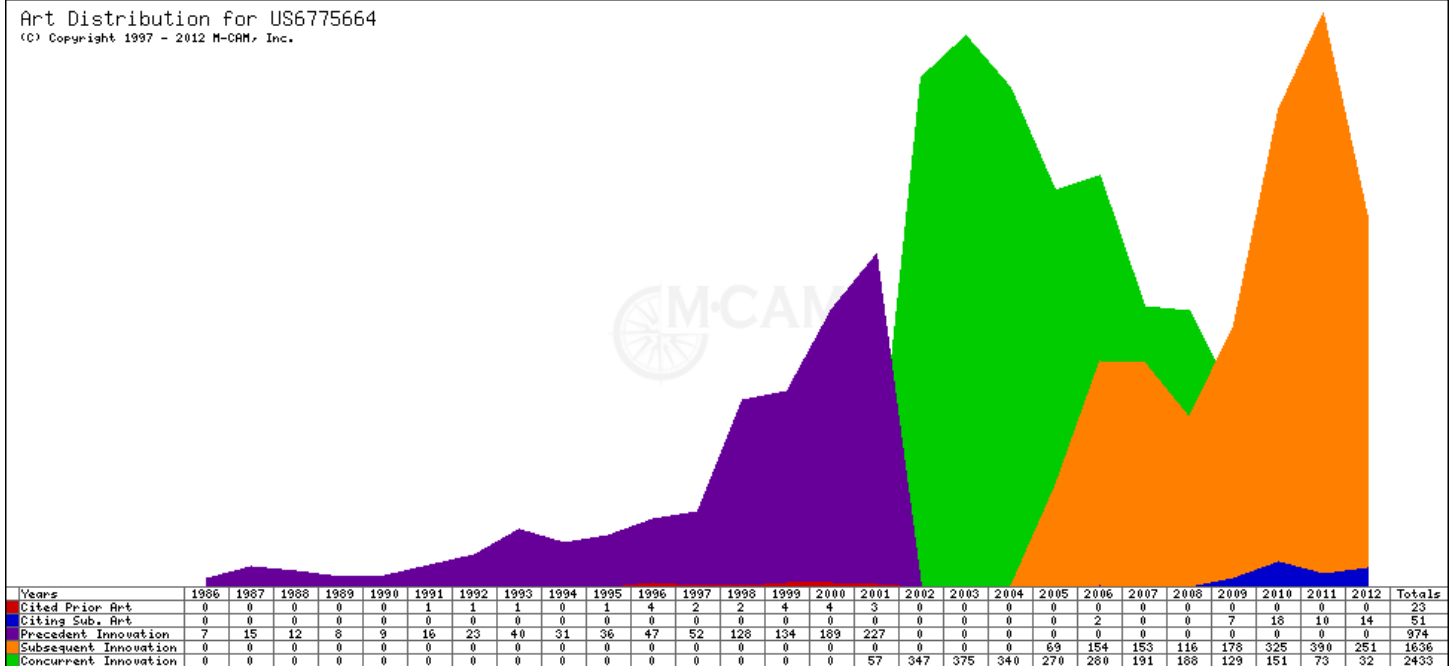
The Innovation Space

The chart below shows other entities involved in the technology space of the '664 and '420 patents. These entities all hold relevant patents predating Vringo's patents which may be viewed as relevant anticipating art in reexamination. As you can see, entities such as IBM, Hitachi, and Xerox developed extensive portfolios in the early days of search engine optimization and customization.



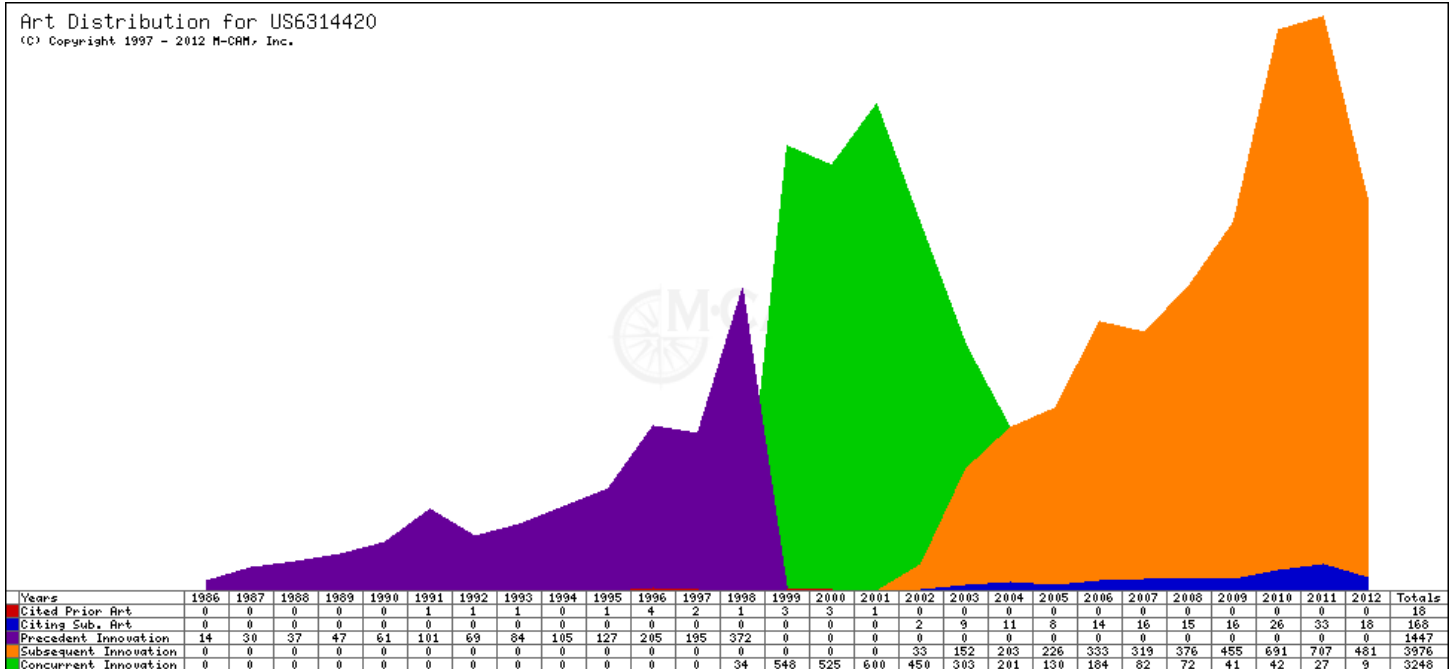
The Expansion of Search and Advertising

This graphic shows the patenting activity in the innovation space of the '664 patent since 1986:



M-CAM DOORS identified more than 900 relevant patents that predate but were not cited by the '664 patent. Additionally, more than 2,400 concurrent and 1,600 subsequent documents were identified. These numbers show that while the Vringo-owned Lycos-developed patent lies toward the beginning of the innovation cycle, it is not so early as to be a truly foundational asset in the technology.

This graphic shows the patenting activity in the innovation space of the '420 patent since 1986:



M-CAM DOORS identified more than 1,400 relevant patents that predate but were not cited by the '420 patent. Additionally, more than 3,200 concurrent and 3,900 subsequent documents were identified. These numbers show a

picture similar to that of the '664 patent in terms of time scale and an even greater amount of uncited precedent innovation.

Conclusion

It is important to remember that the I/P Engine case was decided by a jury. Juries are unqualified to make assessments on patent validity and their opinions have no weight in a USPTO reexamination. Therefore, it is possible for a patent to be modified or invalidated by the USPTO after a trial ruling. One recent and well known example of this possibility occurred in Apple Inc.'s case against Samsung Electronics.

In August, a jury ruled in favor of Apple and recommended an award of \$1.049 billion in damages. In October, the USPTO issued an initial ruling invalidating all twenty claims of Apple's rubber-banding patent (U.S. Patent No. 7,469,381), a patent key to the Apple award. M-CAM brought attention to the weakness of this patent in a Patently Obvious report in May of last year (<http://www.m-cam.com/news/m-cams-2011-contrarian-call-apples-381-patent-validated-uspto>). A post-award invalidation would mean the patent would cease to exist as an enforceable asset and as a result would be removed from any damages calculation.

Even with the jury assessment that Vringo's patents have been infringed by the products and activities of the five defendants, the validity of the patents has not been reinforced. In May, Google filed a request for *ex parte* reexamination of the '420 patent with the USPTO. The reexamination is ongoing. The information presented in this report suggests that the Vringo patents are not safe from invalidation. If that comes to pass, and the jury award is reduced or eliminated, Vringo's future value will be cast into serious doubt.

Appendix A

Document #	Title	Assignee Name	Priority	File	Issue
US 6,460,036	System and method for providing customized electronic newspapers and target advertisements	Pinpoint Incorporated	28-Nov-94	5-Dec-97	1-Oct-02
US 5,835,087	System for generation of object profiles for a system for customized electronic identification of desirable objects	Frederick S. M. Herz	29-Nov-94	31-Oct-95	10-Nov-98
US 5,799,304	Information evaluation	Intel Corporation	3-Jan-95	23-Oct-97	25-Aug-98
US 5,768,578	User interface for information retrieval system	Lucent Technologies Inc.	28-Feb-94	27-Feb-95	16-Jun-98
US 5,754,939	System for generation of user profiles for a system for customized electronic identification of desirable objects	Frederick S. M. Herz	28-Nov-94	31-Oct-95	19-May-98
US 5,754,938	Pseudonymous server for system for customized electronic identification of desirable objects	Frederick S. M. Herz	29-Nov-94	31-Oct-95	19-May-98
US 5,655,116	Apparatus and methods for retrieving information	Lucent Technologies Inc.	28-Feb-94	28-Feb-94	5-Aug-97
US 5,642,502	Method and system for searching for relevant documents from a text database collection, using statistical ranking, relevancy feedback and small pieces of text	University of Central Florida	6-Dec-94	6-Dec-94	24-Jun-97
US 5,600,831	Apparatus and methods for retrieving information by modifying query plan based on description of information sources	Lucent Technologies Inc.	28-Feb-94	30-Nov-94	4-Feb-97
US 5,410,344	Apparatus and method of selecting video programs based on viewers' preferences	Arrowsmith Technologies, Inc.	22-Sep-93	22-Sep-93	25-Apr-95
US 5,278,980	Iterative technique for phrase query formation and an information retrieval system employing same	Xerox Corporation	16-Aug-91	16-Aug-91	11-Jan-94
US 5,265,065	Method and apparatus for information retrieval from a database by replacing domain specific stemmed phases in a natural language to create a search query	West Publishing Company	8-Oct-91	8-Oct-91	23-Nov-93
US 5,263,167	User interface for a relational database using a task object for defining search queries in response to a profile object which describes user proficiency	International Business Machines Corporation	22-Nov-91	22-Nov-91	16-Nov-93
US 5,241,645	Computer system for creating and manipulating subsets of dynamic information systems models	Bachman Information Systems, Inc.	27-Apr-90	27-Apr-90	31-Aug-93
US 4,996,642	System and method for recommending items	Neonics, Inc.	1-Oct-87	25-Sep-89	26-Feb-91
US 4,975,841	Method and apparatus for reporting customer data	American Colloid Company	3-Mar-89	16-Jan-90	4-Dec-90
US 4,870,579	System and method of predicting subjective reactions	Neonics, Inc.	1-Oct-87	1-Oct-87	26-Sep-89
US 4,602,279	Method for providing targeted profile interactive CATV displays	ACTV, Inc.	21-Mar-84	21-Mar-84	22-Jul-86
US 4,546,382	Television and market research data collection system and method	CTBA Associates	9-Jun-83	8-Dec-83	8-Oct-85
US 3,964,029	Information retrieval systems	International Computers Limited	19-Jun-74	14-Apr-75	15-Jun-76

M·CAM's Patent Glossary

<u>Aligned Sector:</u>	The business sector in which the product(s) resulting from the patent(s) is currently or intended to be sold.
<u>Applicant:</u>	The person or corporation that applies for a patent with the intent to use, manufacture or license the technology of the invention; under U.S. law, except in special situations, the applicant(s) must be the inventor(s).
<u>Application:</u>	Complete papers submitted to the U. S. Patent and Trademark Office seeking a patent including oath, specification, claims, and drawings. This usually does not signify a Provisional Patent Application, but only a regular patent application.
<u>Art:</u>	The established practice and public knowledge within a given field of technology. This also identifies a process or method used to produce a useful result. A term used in consideration of the problem of patentable novelty encompassing all that is known prior to the filing date of the application in the particular field of the invention.
<u>Assignee:</u>	The person(s) or corporate body to whom the law grants or vests a patent right. This refers to the person or corporate entity that is identified as the receiver of an assignment.
<u>Business Method</u>	
<u>Patent:</u>	A patent that controls the way a business process is undertaken. The issuance of these patents by the United States Patent and Trademark Office (USPTO) is new and controversial, since many allege that it is unfair to allow a patent on a way of doing business.
<u>Citation:</u>	This may include patents or journal articles that the applicant or examiner deems relevant to a current application. A reference to legal authorities or a prior art documentation are examples of a citation.
<u>Claim:</u>	The language in a patent application that defines the legal scope of the patent. Most patents have numerous claims. This is typically the single most important section in the application.
<u>Concurrent Art:</u>	Concurrent art occurs when related patent applications are being examined by the USPTO at the same time. It is difficult for any company or inventor to know, at the time they file for a patent, whether a “related” patent application exists.
<u>Filing Date:</u>	The date when a properly prepared application reaches the patent office in complete form.
<u>Innovation Cycle:</u>	A description of the commercialization timeframe for the intellectual property.
<u>Innovation Space:</u>	M·CAM’s representation of the innovation(s) that occur before, during, and after the pending period of the subject patent. The innovation space is the first place to look for patents that are closely related to the subject patent and that may impact the defensibility of the subject patent or create opportunities for patent licensing.
<u>Issue Date:</u>	Not to be confused with the filing date, which is the date the patent application was physically received by the U.S. Patent and Trademark Office. This is the date on which the patent actually issues.
<u>Non-Aligned</u>	
<u>Sector:</u>	Any sector in which the patent can be used or sold, other than the sector for which the patent or resultant product was invented or intended.
<u>Pod:</u>	A group of patents owned by a company that should be treated as a single unit of innovation (e.g., a certain group of patents that comprise a single product or multiple related products).
<u>Prior Art:</u>	Any relevant patent that was issued before the patent being analyzed. If this previous patent was specifically mentioned in the new patent’s application, the previous patent is referred to as “cited prior art”. If it was NOT mentioned, then that previous patent is referred to as “uncited prior art”.
<u>Subsequent Art:</u>	Any patent that has a filing date with the USPTO that is after the issuance date of the subject patent. This subsequent art patent may or may not have cited (see “Citation” above) the subject patent. As subsequent art represents more recent innovation than the subject patent, it has great potential to shrink the market opportunity for the subject patent.

A Brief Primer on the Patent System

In recent years, the importance of patents and intellectual property rights as an important variable in the marketplace has come to the forefront of the public consciousness as world leaders declare their country's lead in the innovation race. Damaging intellectual property litigation is becoming increasingly common across all industries. This is exacerbated when patent rights are granted for non-novel ideas. A vast amount of precedent innovation is unconsidered by patent-granting authorities in the creation of new IP rights. Patent granting authorities including the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), Japanese Patent Office (JPO), Chinese State Intellectual Property Office (SIPO), Korean Intellectual Property Office (KIPO) and many others are constrained by the use of patent classification systems which are routinely circumvented by patent applicants.

There is a two-way social contract underlying the patent system. In the United States, patent terms are generally limited to 20 years from the date of application. By statutory intention, once a patent has expired, the patent holder loses the right to exclude others from fully utilizing any innovation described in the patent. A large number of patents enter the public domain when they are "abandoned" – when owners discontinue paying patent maintenance fees. Patents also only provide an exclusionary right in the country for which the patent is filed. As demonstrated by the Global Innovation Commons¹ (G.I.C.), using intellectual property available in the public domain eliminates the need to pay licensing fees on those innovations in countries where the patent was never registered, or worldwide, if abandoned.

Patently Obvious® is a weekly report focusing on select groups of patents in order to increase transparency in markets, addressing information asymmetries, and providing a more level playing field for all parties.

The information in this report was prepared by M·CAM, Inc. ("M·CAM"). M·CAM has used reasonable efforts in collecting, preparing and providing quality information and material, but does not warrant or guarantee the accuracy, completeness, adequacy or currency of the information contained in this report. Users of the information do so at their own risk and should independently corroborate said information prior to any use of it. M·CAM is not responsible for the results of any defects that may be found to exist in this material, or any lost profits or other consequential damages that may result from such defects. The information contained in this report is *not* to be construed as advice and should not be confused as any sort of advice. M·CAM does not undertake to advise the recipient or any other reader of this report of changes in its opinions or information. This information is provided "as is." M·CAM or its employees have or may have a long or short position or holding in the securities, options on securities, or other related investments of companies mentioned herein. This report is based on information available to the public.

¹ <http://www.globalinnovationcommons.org/>