

## **THE POINT OF VIEW OF A USER'S NEEDS**

*Roland Hill, Chairman and Managing Director, Contra Vision Ltd*

## SUMMARY

As an introduction to his speech, Roland Hill, Chairman and Managing Director of Contra Vision Ltd, challenged two ideas defended by previous speakers: the concept of patents being granted with claims that are too broad and the concept of trivial patents. If the claims of a patent application satisfy the legal requirements of patentability, it is not for the EPO to artificially limit claims, for example to try to decide what is the important aspect of an invention. Similarly, it is not the job of the EPO not to grant inventions which an examiner might consider to be trivial. Some small step inventions are crucial to commercialisation and public benefit from a prior invention. The market will decide which inventions are important, probably several years after a patent is granted.

The Contra Vision invention evolved from an idea commencing some thirty years ago. Roland Hill invented and patented a squash auditorium with retractable seats as a back wall to one squash court that could be extended to view an opposite, glass backed court. He then developed a demountable court for squash and racquetball with one-way vision walls known as Safe-Screen. However, when patenting the one-way wall construction, he did not claim the important part of the invention, the method of printing the one-way effect, resulting in a severe loss of potential income. However, this led to the idea of see-through graphics known as Contra Vision<sup>®</sup>. Contra Vision Ltd was founded in 1985 and since then have licensed their dominant patent "family" to companies varying from multi-nationals 3M, Avery Dennison, LG Chem and Toppan, to small printing companies. Recently, the dominant patents expired, but the currently preferred methods of making the invention are protected by improvement patents.

The benefits of the see-through graphics in invention are various. When applied to a window, it maintains daylight in, clarity of view out, together with many vision control options and solar control. Hence, these screens have been very successful in many fields, including advertisement on shop windows, store entrance doors, bus "wraps", bus shelter adverts, building "wraps", architectural decor, privacy glazing, OEM vehicles (Caterpillar, Komatsu, etc.), to mention a few.

Contra Vision licenses patents, secret know-how and trademarks. Product applications are divided into 8 market segments and there are several different production technologies, which are licensed by territory. The invention is also marketed globally by Contra Vision.

However, they have faced negative experiences of infringement and breaches of license agreements, and have had to spend millions of dollars on enforcement.

These experiences emphasize some key requirements for the enforceability of patent rights, relying on four pillars: the validity at grant or after amendment, a cost-effective legal framework, an effective deterrent (the ability to pursue infringers or deter unjustified attacks) and corporate governance, creating an environment which respects IP.

Generalizing these observations, Roland Hill insisted that the European patent system is for society, not the inventors, in order to encourage innovation; that

inventors should be aware of the patent system and have a good reason to believe it is a worthwhile process; that IP is very important to the European economy; and that time is of the essence, bearing in mind the globalisation of the market. Therefore, points to consider for the applicant are: first, concentrate upon obtaining granted patent claims covering the commercially desirable embodiments, which are enforceable; second, recognise that infringers and reluctant licensees are the best search engines for prior art; third, a uniform amendment procedure is required, providing a way to singly amend patent claims throughout Europe; fourth, speedier opposition proceedings.

More co-operation between applicants and the EPO should be encouraged, leading to a non-adversarial application process, in which the assessment of patentability is the result of a joint process. The EPO's examining division should assess the novelty of the claimed invention in universal terms (and make its decision on novelty clear from the first communication). This will also require the disclosure of the most relevant material prior art by the applicant himself (as is the case in the US), which the average patent attorney is often reluctant to do, notably because the inventor himself doesn't know after one year what are the commercially valuable aspects of the invention. Therefore, everyone would benefit from an initial tolerance of apparently broad claims in the light of currently known prior art, so as to allow time for the inventor to clarify his invention before the first examination. However, the most relevant prior art, especially "prior art in use", may not emerge for several years, if and when the invention is successful and infringers or potential licensees have done their best to find prior art. It is then crucial to have a unified amendment system to allow claims to be changed to take account of any newly discovered prior art. Roland Hill thought this to be the most pressing need of the European patent system at the moment.

# Patent Applications: The Point of View of a User's Needs

Roland Hill  
Chairman and Managing Director, Contra Vision Ltd



EPO Conference, The Hague, 21 November 2005



COURTBACK™ - GB Patent No I 539 539



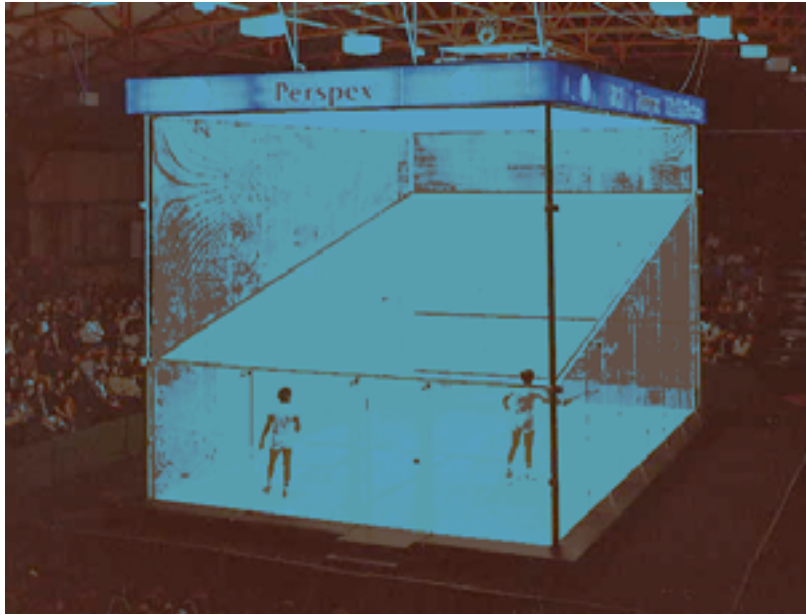
COURTBACK™ - GB Patent No I 539 539



Model of Demountable Court for Squash and Racquetball



SAFE-SCREEN™ GB 2 118 096

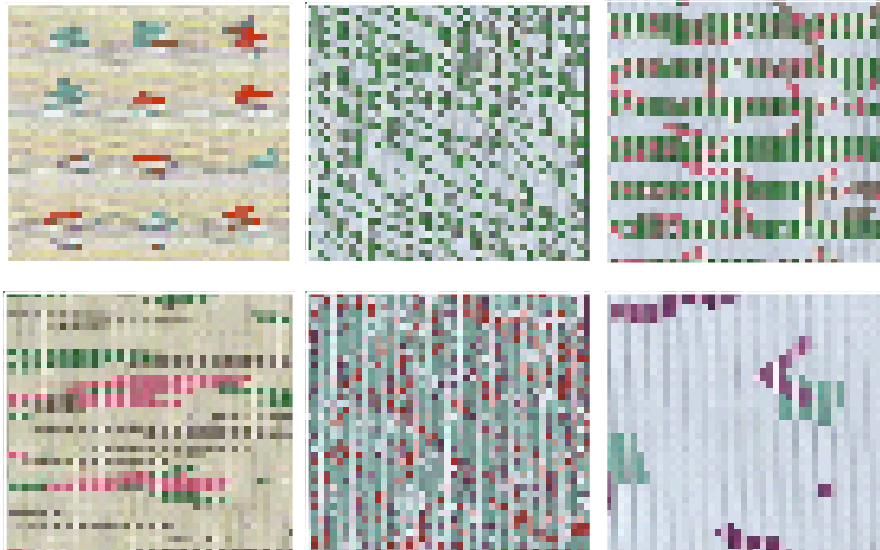


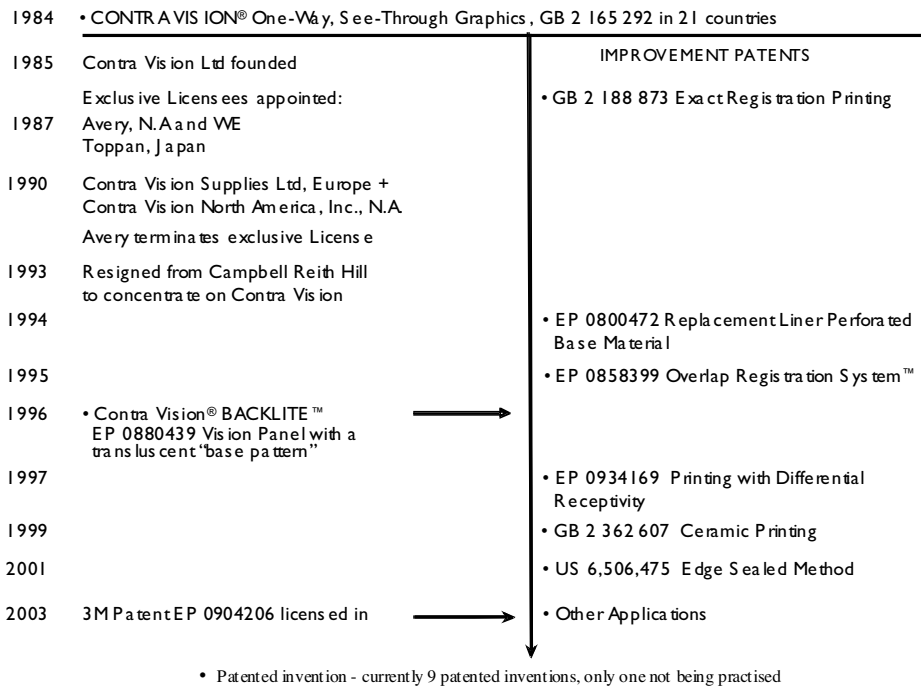
SAFE-SCREEN™ GB 2 118 096



## Sequence of Inventions

- 1970 **British Steel Corporation Fellowship** at the **University of Manchester**
- 1972 Joint System GB 1 417 983 owned by B S C
- 1972 **Campbell Reith & Partners (Campbell Reith Hill)**
- 1976 COUR TBACK™ S quash S pectator S eating S ystem  
GB 1 539 529
- 1976 S tructural design of “All Glass S quash Court”
- 1977 BBC Tomorrow's World programme on “All Glass S quash Court”
- 1982 GB 2 118 096 One-Way Vision wall material S AFE-S CREEN™
- 1982 S AFE-S CREEN™ Demountable S quash Court with 4 unobstructed one-way vision walls





### Contra Vision® GB 2 165 292

- based on transparent materials: glass, plastic sheets or plastic films
- has an opaque "silhouette pattern": dots, lines, perforated material, etc
- a design on one side not visible from the other side (may also have a design on the other side not visible from the first side).

## Other Benefits

- No Reverse (mirror) Images
- Daylight in
- Clear View Out
- Solar heating, glare UV reduction

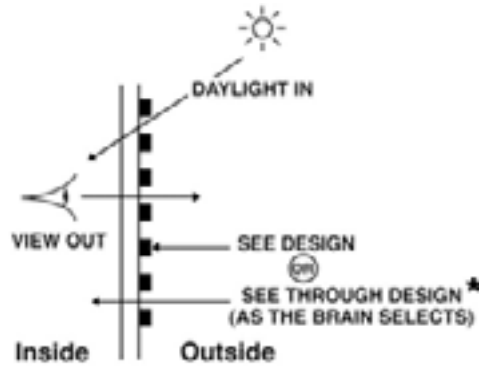


Fig. 32 "Panel" GB 2 165 292















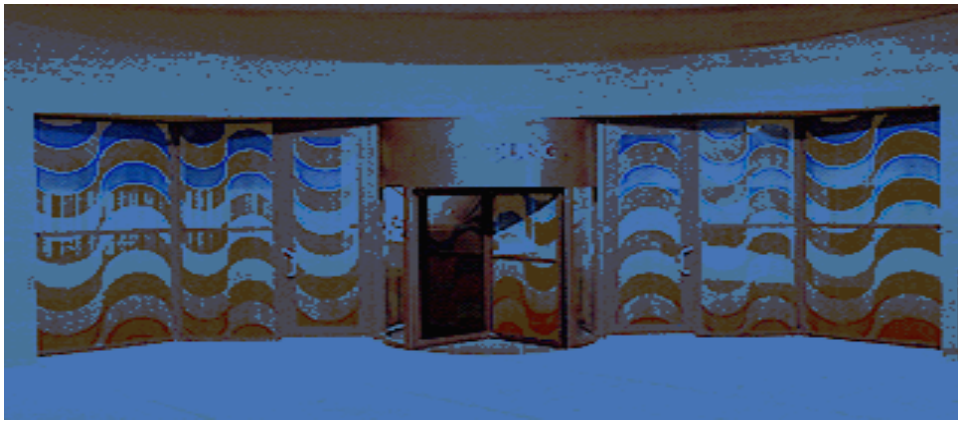




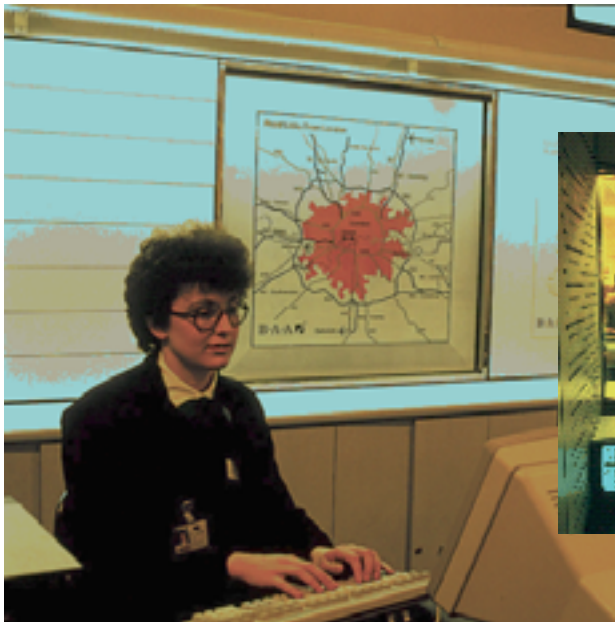














### Contra Vision's Intellectual Property and Associated Technology



### Product applications in 8 Market Segments

<b>Advertising</b> The various visual and audio elements of advertising are made more effective and efficient with Contra Vision's Smart & Connected TV	<b>Architectural &amp; Construction</b> Providing precise, accurate & easy-to-use 3D models, blueprints, drawings & visualizations for interior & exterior	<b>Vehicles</b> Contra Vision's smart in-vehicle navigation system helps drivers find the best routes, avoid traffic, and provides real-time information on road conditions	<b>Security</b> Contra Vision's smart security cameras provide 24/7 monitoring & alerts
<b>Publishing &amp; E-learning</b> Interactive content for digital publishing	<b>Packaging &amp; Labels</b> Easier to understand product packaging, making it more effective	<b>Central Business</b> Central Business	<b>Other Markets</b> Contra Vision's smart solutions provide a wide range of applications for various industries, including healthcare, education, and retail



Case History A



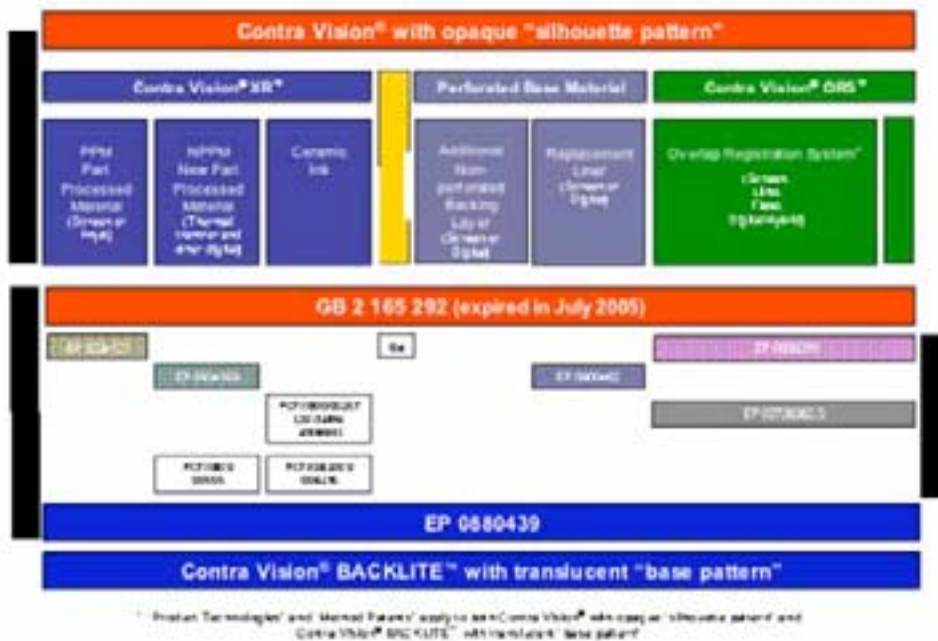
Case History B





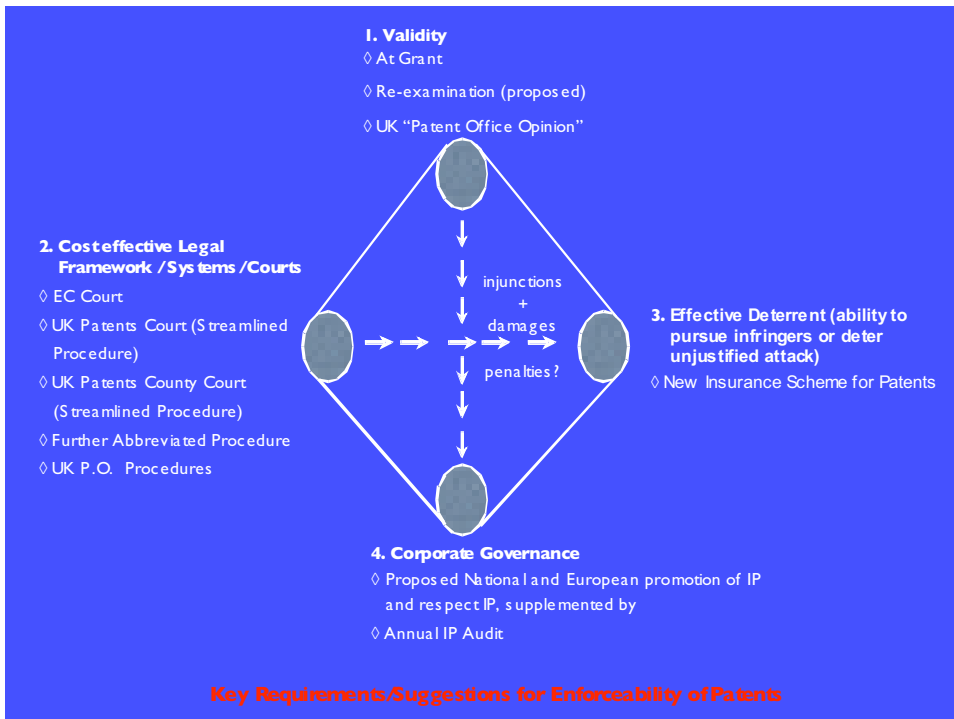


Fig. 4 Intellectual Property related to Products and Methods of production



**GB/E/P Patents Related to Contra Vision © See-through Graphics Advertisements**

GB/E/P Pat. No.	Title/Description	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
GB26292	"Print" (DOMINANT PATENT)	JUL 2005																			
GB218893	"Improvements in or relating to Printing (Elect. Registration)"		December 2006																		
EP080462	"Method of Forming a Puffcoat Adhesive Assembly"											January 2016									
EP088339	"Partial Printing of a Substrate" (Through-Coloration Method)											October 2016									
PCT/IB02/0758	"Partial Printing of a Substrate with Edge-Sensitive Patterns"																	January 2002			
EP088439	"Print with Light-Permeable Images" (DOMINANT PATENT)											January 2017									
EP089149	"Printing with Differential Transparency"												October 2017								
PCT/IB03/0255	"Printing with Differential Adhesion"																	February 2003			
EP089228	"Display Unit and Method of Displaying an Image"												June 2016								
Pat. Appl. C (TBA)	"Print with Cut Film" (optional method)																				January 2026
PCT/GB009/0206	"Glass Panels Partially Printed with Chromogenic Layers in Substantially Exact Registration"																				September 2003
GB 080917	"Printed Electronic Structure with Security Codes"																				March 2012
GB 0421815	"Illumination Device"																				January 2001



## TRUISMS

- **The patent system is for the benefit of society**  
*not the inventor*
- **The patent system should encourage inventive innovation**  
*the applicant needs to believe it is beneficial for him to apply for a patent and publicly disclose his idea*
- **Small improvement patents can substantially benefit society**  
*treat with same care as "big ideas"*
- **Time is of the essence**  
*3+ years to grant  
9 months to file opposition  
3+ years for opposition procedure  
(8 years assessment v. 1 year creativity) not in society's interest  
"PACE" accelerated prosecution*
- **It is a global market**  
*PCT application must fulfil disclosure and other requirements of US and other patent offices, not just EPO rules.*

**1. Application should give most chance of a granted patent that covers the commercially desirable embodiments and is enforceable**

**2. A patent application is the start of a long and winding road leading inevitably, if the invention is successful, to litigation or threatened litigation.** *Litigation is like dancing with a bear; it is easy to start but you can only stop when the bear wants to stop.*

**3. The description and other aspects of the application should suit other patent regimes, such as the US PTO** *(best method, reduction to practise, proof of inventorship, obligation to submit all material prior art, etc.)*

**4. A single, uniform amendment procedure** is urgently required ("London Agreement").  
*The present requirement for national amendment with greatly varying rules (amendment allowed in some countries, not in others, disclaimer in some countries, different methodologies) penalises European innovation and reward.*

**5. Infringers and reluctant licensees are the best "search engine"** for prior art, especially trade literature, brochures and "prior art in use". It is not the patentee's fault, nor any Patent Office's fault, if more prior emerges.

**6. The most important applications are:**

Applications for:

Amendment

UK Patent Office Opinion

Re-examination?

} These procedures are "dealing with winners" -  
use best examiners – in public interest

## CO-OPERATION

- **Should not be an adversarial process** – it is in society's interests to grant good patents – encouraging further innovation
- **A mutual search for patentability**
- **Disclosure of most relevant/material prior art** if so:
- **Initial tolerance of relatively broad claim** to cover scope of the invention until first examination – not in society's interests to be processing multiple applications initially
- **Applicant to amend claims in light of prior art** before first examination

## LIFE OF A PATENT

Time	Patent Office	Patentee	Others (Competitors, Potential Infringers or Licensees)
- 1 year		Initial idea – protect with – Patent Application ("first filing")	
ZERO		DEVELOP IDEA PCT Application ("second filing")	
+ 6 months	Publish application (with initial search report, preliminary opinion on relevance of prior art found)	Continue R&D	See potential of idea Assess likely patentability (and financial strength of Patentee, to enforce patent) Possibly enter market
+ 3-4 years?	Grant		
(+ 9 months)	Opposition Procedure	Opposition Procedure	File opposition request
+ 6-8 years?	Decision – assume granted	Some success	Infringement
+ n years?	Application for: Re-examination Amendment UK "Patent Office Opinion"	Additional Prior Art	Additional Prior Art e.g. trade publications, "prior art in use", etc.
+ 20 years	EXPIRY	OF	PATENT

