

Electronic Paper Technology
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Company profile

- **Founded in 2005**
 - Originated within Philips Electronics and spun out in 2005
 - IREX = Interactive Reading Experience
- **2005-08: Three Generations of Experience**
 - Sony Librie screen module (when still part of Philips)
 - IREX iLiad (8", 16 level grey scale vs 4 level @ Kindle 1, Sony)
 - For retail market
 - IREX DR1000 (10", 16 level grey scale, superb readability)
 - Productive e-Reading device for professional markets,
- **Status Today**
 - IREX DR1000 serves thousands of professionals (Read & Write)
 - US launch DR800SG (3G), 4th generation eReader for consumer markets (partners Barnes & Nobles, BestBuy, Verizon and others...)
 - Serving partners in professional segments (SolidFX-Aviation), governmental segments (Notubiz-document flow solutions), education segments (Netherlands OU, Aston University)



All things digital.....paper?

	Creation	Distribution	Consumption
Speech			
Pictures			
Video			
Music			
Print media			

... still no paperless office

- Along with the rise of the personal computer came the prediction of the “paperless office”. Computer technology was supposed to replace paper
- But that didn’t happen. Every country in the Western world uses more paper today than it did 10 years ago
- By automating our offices we have increased our ability to produce paper at a growing rate. Computers, printers, e-mail and the internet have dramatically increased the volume of information that many people deal with and print every day.
- The average US office worker prints out more than 10,000 pages a year of which 75% are thrown away in a week’s time and 50% even within the day



Why does paper persist?

- Many benefits
 - Tangible, pick up a document, flip through it
 - Easily annotate it, scribble on it as you read
 - Collaborative, pass notes to colleagues, discuss documents at hand
 - Mobile
 - Reliable
- No full integration of digital printed media: still “print”
 - Office workers store information digitally but they continue to print out documents.
 - The computer did not solve the problems that paper solved
 - Poor readability of PC / Laptop monitors causes eyestrain
 - Reading on portable LCD, size / battery life an issue
- Electronic paper overcomes these issues

Paperless reading solutions

- With the introduction of the electronic paper display technology the unique affordances of paper are integrated with the affordances of digital documents
 - A paper-like reading experience, with the ability to physically interact with the content and all the benefits of digital content
- Proof of how this technology has been successfully integrated in the book and newspaper market is the success of the IREX iLiad/DR800, Amazon Kindle and Sony Reader.
 - Industry analysts estimate that the sales of ereaders in this segment will grow to 6 million in 2010.
- Until recently, the major part of digital print media has not been addressed: a paperless reading/writing solution for A4/letter sized documents



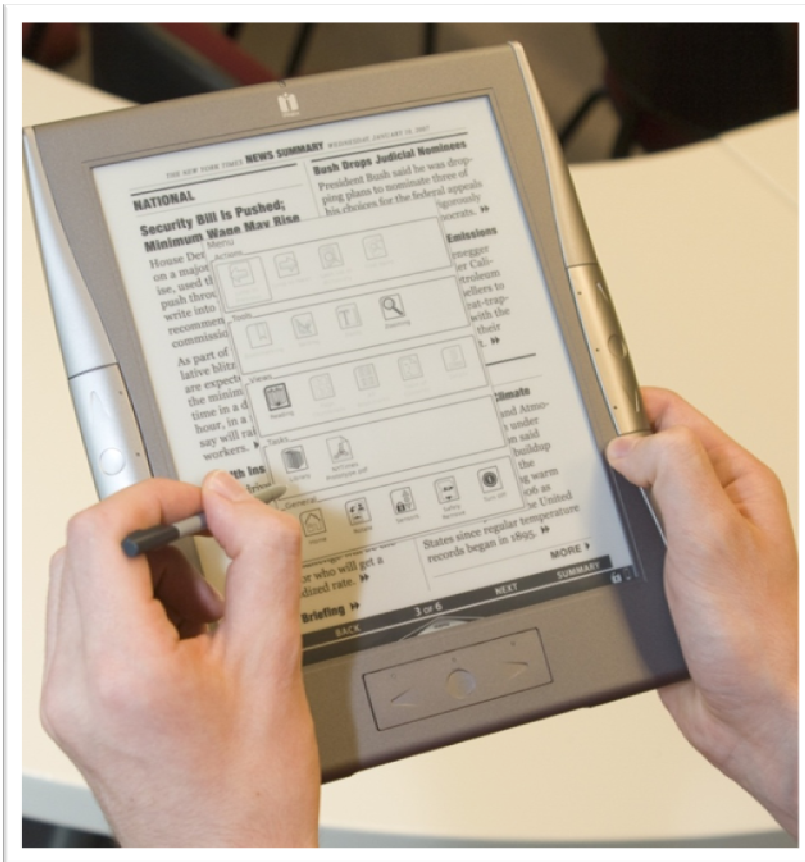
Requirements for intensive reading

- Essential part of the learning process
- Best intensive reading is achieved from electronic paper....not from LCD screens
- The ability to write, while reading, greatly enhances learning efficiency
 - Note taking and mind-mapping is part of the educational process
- Maintaining the structure of documents by displaying text on letter/A4 size high resolution screen, providing structure and overview, critical for STM publishing
- Ability to have almost instant access to documents on the go, outdoors / bright daylight
- Better than paper, by integral costs and overall environmental impact

The Next Generation

- We designed the IREX Digital Reader 1000 to provide professionals with an exceptional reading and writing experience
- Comfortably read any digital document, even A4 or letter sized documents, without the hassle of conversion
- Natural handwriting onto the document
- An open system that easily syncs with your PC and read all most common formats in an intuitive manner
- Print all your digital documents directly on electronic paper and with plenty of storage the DR 1000 lets you hold all your paperwork:
 - Self created and purchased content
- Unique IREX features:
 - Easy content delivery (IDS option)
 - Open standards and content sale models

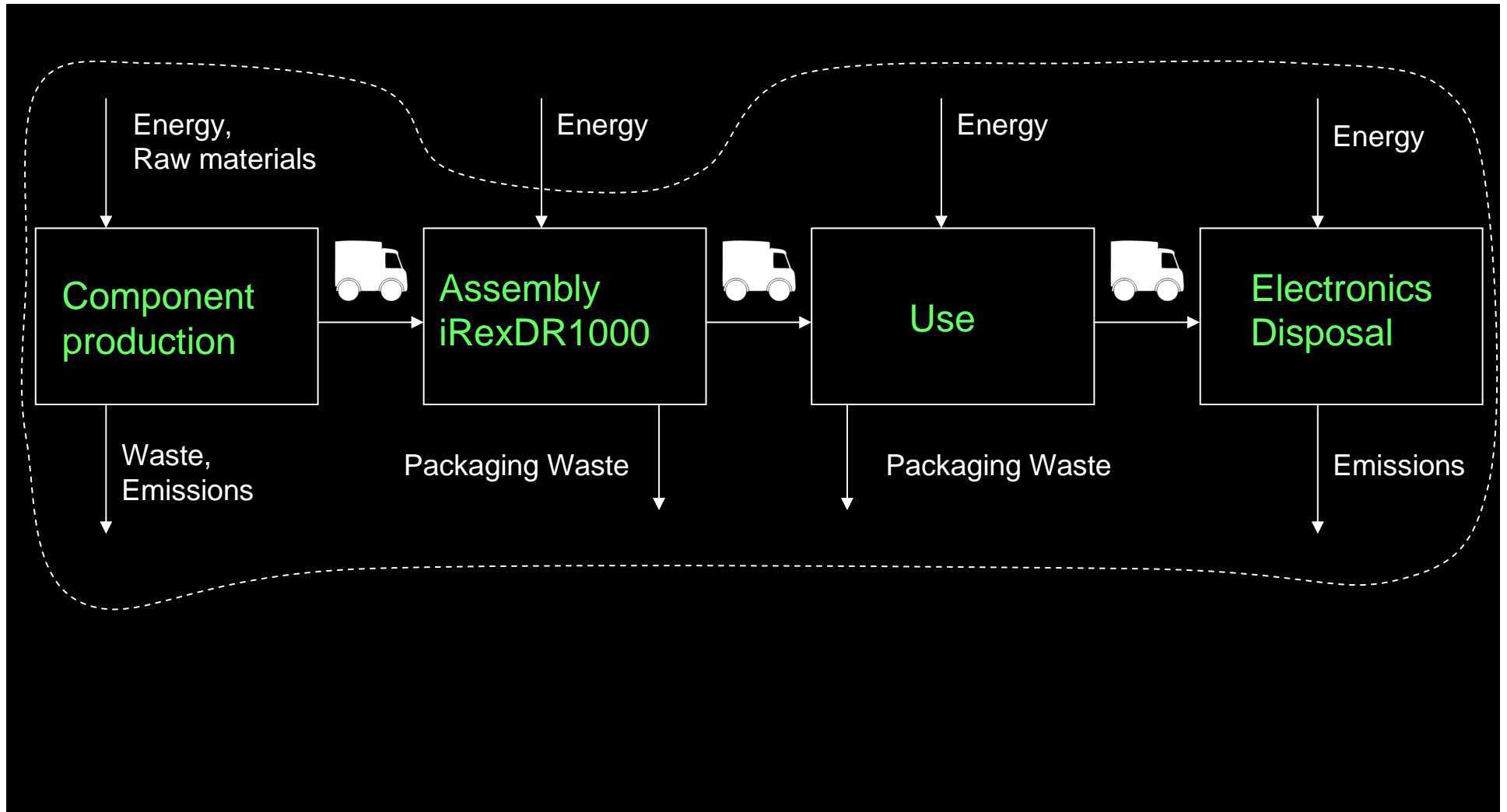
IREX Digital Reader 1000



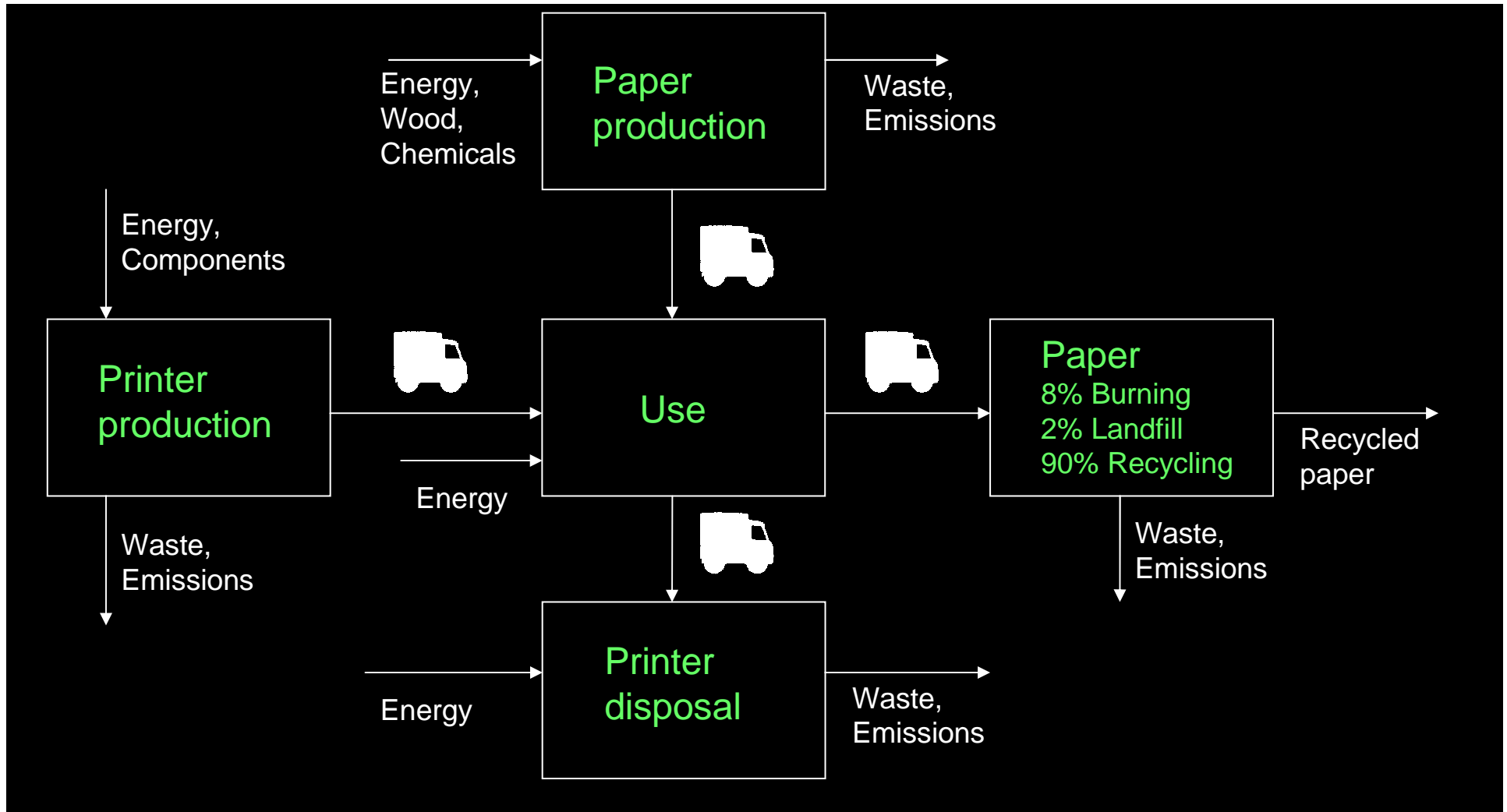
The Innovative iRex Digital Reader 1000 features the world's largest commercially launched E Ink Vizplex™ display to date, making it very desirable for eNewspapers and full-page PDF files. With the pen input feature, this device is also well-suited for automatic forms processing and other workforce applications.

Russ Wilcox, President and CEO, E Ink Corporation

E-Reader Supply Chain

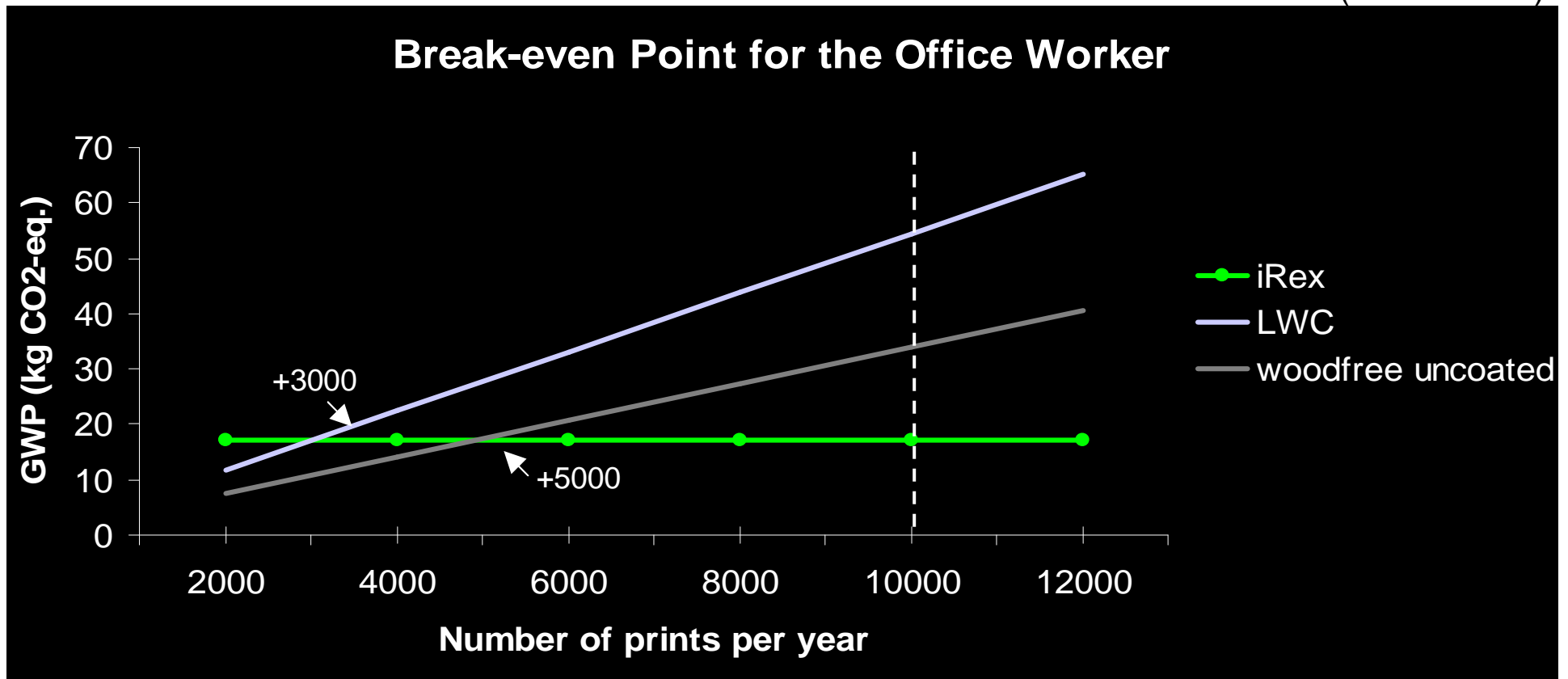


Paper Supply Chain



Environmental Impact of Paper

Source: CML (Leiden/Delft)



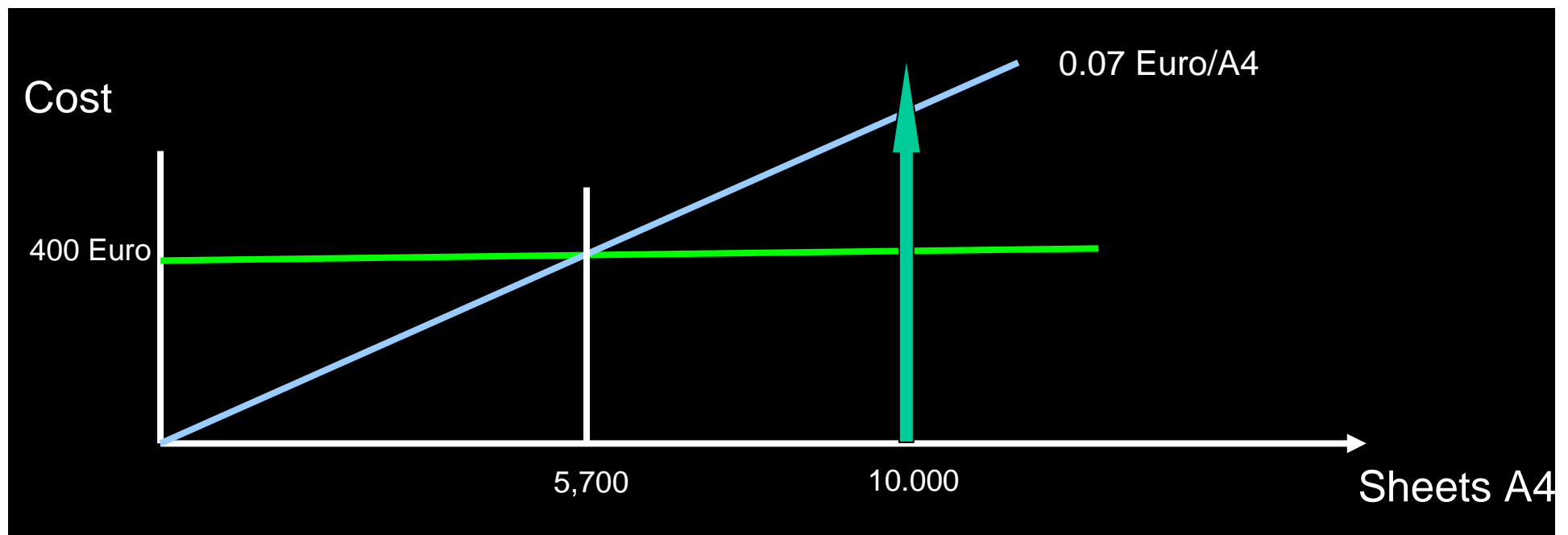
Considering climate change:

“Strong evidence that the iRex DR1000 is a sound alternative to regular office paper use”

Cost Impact

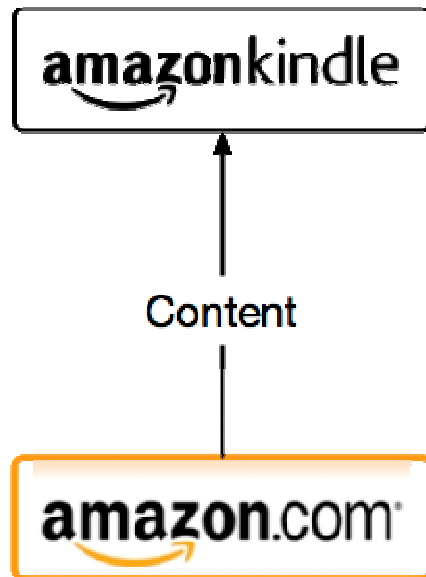
- Paper, ink
- Energy and time consumption of printing
- Time and costs of transport
- “Dislocation” costs
- Costs related to collection and destruction

Source: Dutch Govt

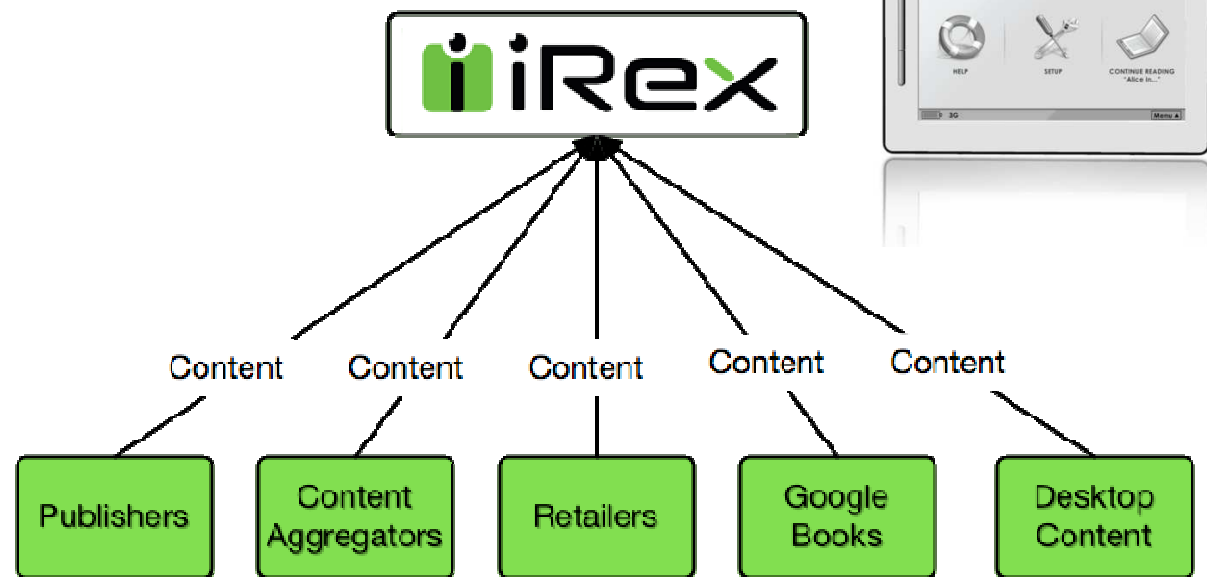


Architecture

Closed Architecture



Open Architecture



“Kindle is far more closed even than iPod, which started out and have remained primarily players for MP3s, easily made from any audio CD. While Kindle supports a couple of non-DRM publication formats (unfortunately not yet PDF or EPUB), there is almost no supply of non-DRM commercial content, a situation unlikely to change any time soon.”

- Bill McCoy General Manager, e-Publishing Business Adobe Systems

Opportunity for STM Publishers

- Because of reasons highlighted, people feel comfortable with paper ... they trust it .. they are willing pay for it but increasingly expect real time access wherever they are
- Put content on the web:
 - Availability, search is outstanding BUT
 - Intensive reading on LCD, laptop, Smartphone not possible
 - Value is reduced
- By publishing to e-Paper of the correct format (A4, reading and writing)
 - Benefits of availability, search remain AND
 - Direct bond of paper with the reader is maintained
 - Value of the content is increased
- The IREX open content platform allows publishers to directly reach their existing consumers and win new ones
 - With major long term environmental and cost benefits

Thank you!

www.irextechnologies.com