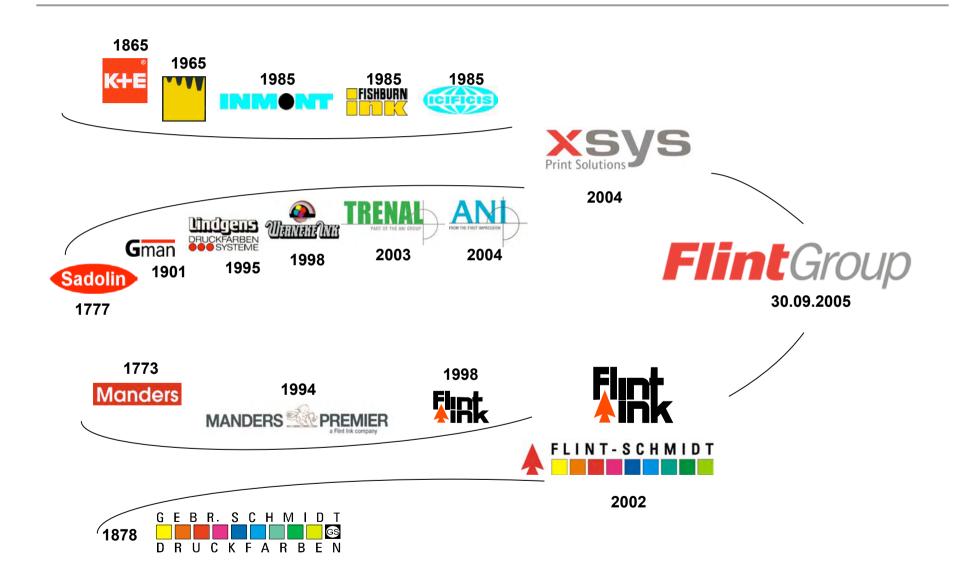


Meeting 29.11.06 R. Janssens



FlintGroup

FlintGroup





Flint Group at a Glance

- 2005 Net Sales: 2.2 billion EUR (\$2.7 billion USD)
- No. of employees: 7 000
- >140 company sites in over 40 countries
- Global network of partners and distributors



Flint Group Company Structure

Conventional Inks: Flint Group

- Liquid Inks

- News Inks

- Publication Inks

- Sheetfed Inks

Narrow Web Inks: XSYS Print Solutions

Printing Plates: Flint Group Printing Plates

Raw Materials: Flint Group Pigments & Resins



Flint Group News Inks Production Sites

Wolverhampton

- Offset & Flexo

Cologne

- Offset

Lessines

- Offset

Trelleborg

- Offset

Cinisello

- Flexo







European Market 2005 – EUPIA Figures

• News Inks turnover: 406.000.000 EURO – 180.000 Tonnes

Flint Group N.1

Italian Market 2005 – EUPIA Figures

Coldset: 10.000 Tonnes

• Flexo: 3.500 Tonnes



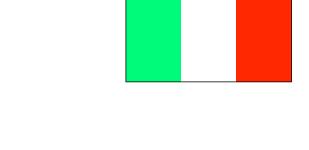




Commercial & Technical Organisation

- M. Bussola
- A. Ferrari
- B. Truffi
- + tech. team Europeo

Agenti



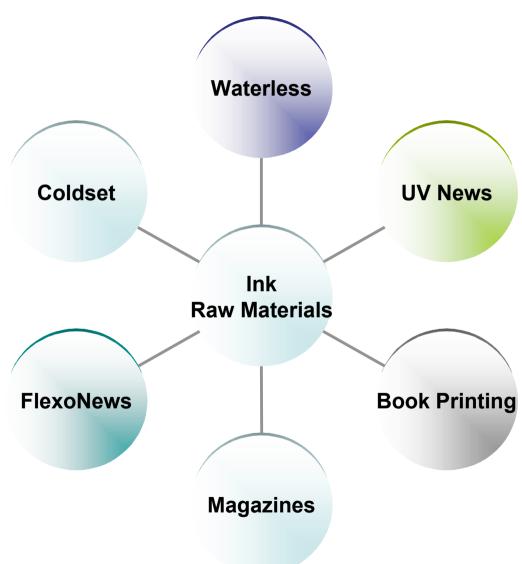


2. Choice of Ink Technology

- Determined by application and Pressroom demand
- Raw Material choice and Availability

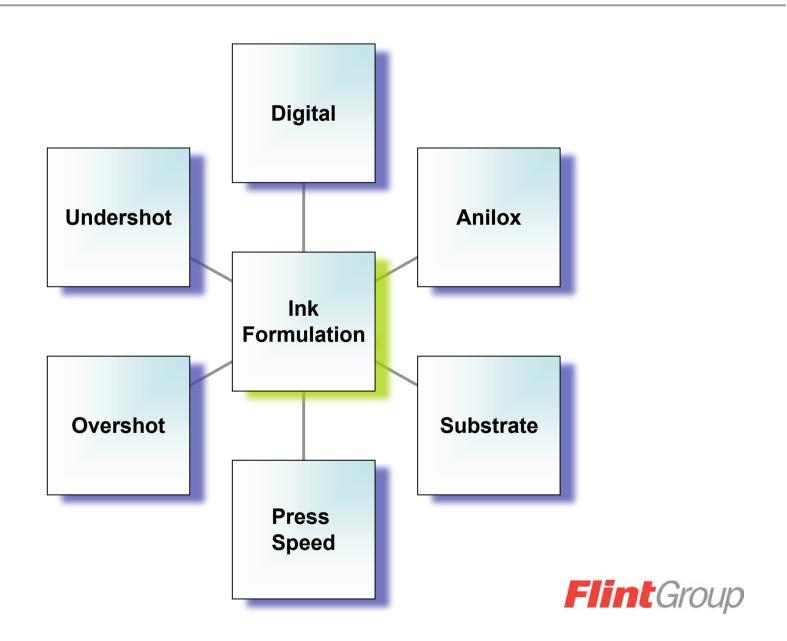


Raw Material Selection: Application Demand





Formulation Selection: Press-room Demand



Key Raw Materials: Offset

Formulatory Drivers:

- Colorants
- Resins
- Diluents
- Additives



Raw Materials and Composition: Offset

Ink Constituent	% Composition	% of Total Cost
<u>Pigment</u>	16 – 22 %	50 – 76 %
(Colour and Hue)		
Resin	24 – 30 %	12 – 26 %
(Technological Foundation)		
Diluent (Petroleum/ Vegetable Oils)	25 -35 %	8 -12 %
(used to dissolve the resin)		
Additives (extenders)	5 – 15 %	4 – 8 %
(Adjust print performance)		
<u>Additives</u>	2 – 6 %	6 – 12 %
(Rheological / Lithographic Control)		



Primary Raw Material Sourcing: Offset

Petroleum Derivatives

Pigments, Resins, Diluents

Renewable Resource

Diluents



Raw Materials and Composition: FlexoNews

Ink Constituent	% Composition	% of Total Cost
Pigment	15-20	55-65
(Colour and Hue)		
Resin	20-30	30-40
(Technical foundation)		
Additives	3-6	3-6
(bacterial, foam and pH control)		
Diluents	48-58	2-4
(used to dissolve resin and control viscosity)		
Total	100	100



Raw Materials: FlexoNews

Acrylates

Derived from crude oil derivatives

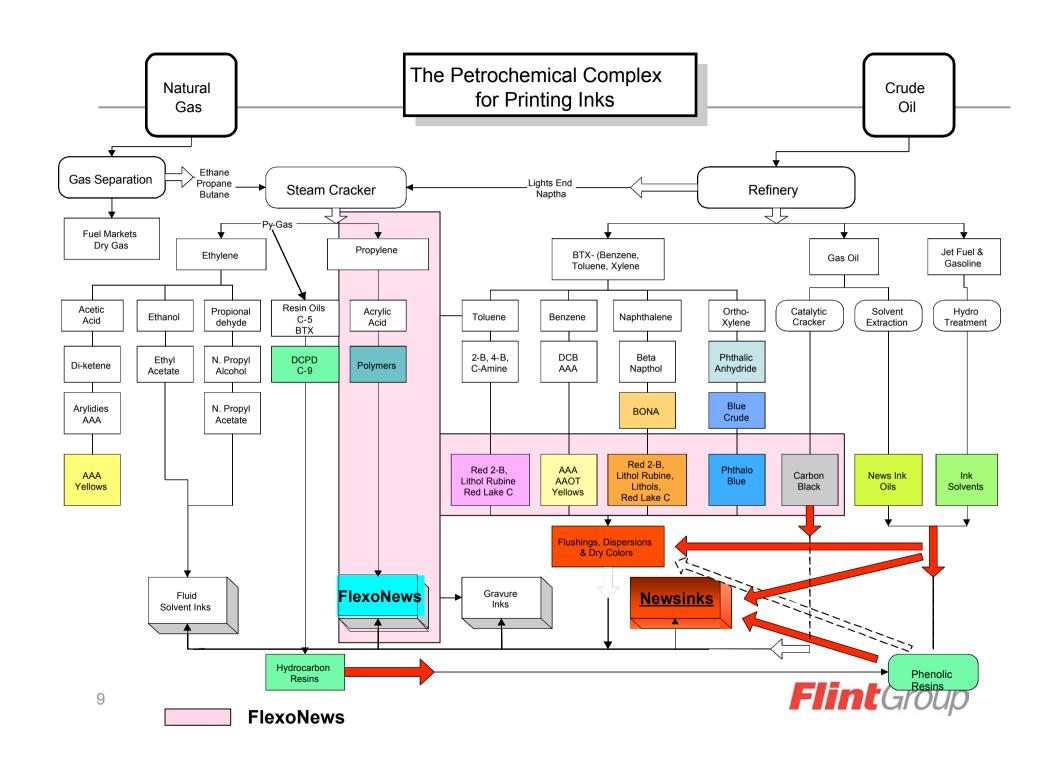
Pigments

Derived from crude oil derivatives

Additives

Synthesised from petroleum raw materials





Renewable Resource:

- Colourants: NO vegetable based pigments currently available to meet the market requirement.
- Vegetable based resin: Direct alternative to current hightech petroleum derived resins is not available.
- Vegetable Oils: Offers the only real opportunity to mitigate against price and availability pressures on petroleum alternatives
- FlexoNews : All materials based on synthesised source



Offset Raw Materials – Health and Safety

- All materials unlabelled and comply with all EU regulations
- All process pigments compliant for heavy metal content
- Representation in industrial forums to anticipate and manage legislative changes.



FlexoNews: Health and Safety

- Potential legislative pressure on Pigment Fanal Red 169, R41 labelling. Italian government driving removal of Fanal Pigment from ink formulation.
- Representation in industrial forums to anticipate and manage legislative changes.



3. Future Developments:

- Technology
- Raw Materials and Pricing



New Developments: Technology

- Deinkability: Ongoing development at CTP, Grenoble and HQP, UK
- Waterless Application :

Project ongoing at various sites in De and BeNeLux

• UV/EB News:

Successful utilisation in North America at over 20 customers using Flint Arrowlith UV/EB News Technology

MAN XXL :

Project ongoing for product enhancement

Low-Grammage Newsprint :

Development of inks to minimise strike-through for the 42GSM sheets.



Raw Material Choice and Availability

- Consolidation coupled with unprecedented Asian demand
- Capacity realignment and product elimination
- Relocation of manufacturing base, reduction in competitive dynamics

1995
Oils
Resin
Diluents
Pigments
Additives

2005
Oils
Resin
Diluents
Pigments
Additives



Raw Material Availability:

Force Majeure

- 1. Hydrocarbon resin due to plant shutdown
- 2. Phthalic Anhydride due to global demand

Shortages

- 1. Copper Demand from new world economies
- 2. Carbon Blacks Capacity fully committed to competitive industries
- 3. Petroleum Distillate Refinery capacity constraints coupled with competitive industry demand due to legislative demand.
- 4. Petroleum Base Oil: Suppliers opting to supply to other more profitable outlets for their materials.
- 5. BON Acid : dramatic price impact due to supply limitation on Rubine pigment



Crude Oil - Fundamental Raw Material

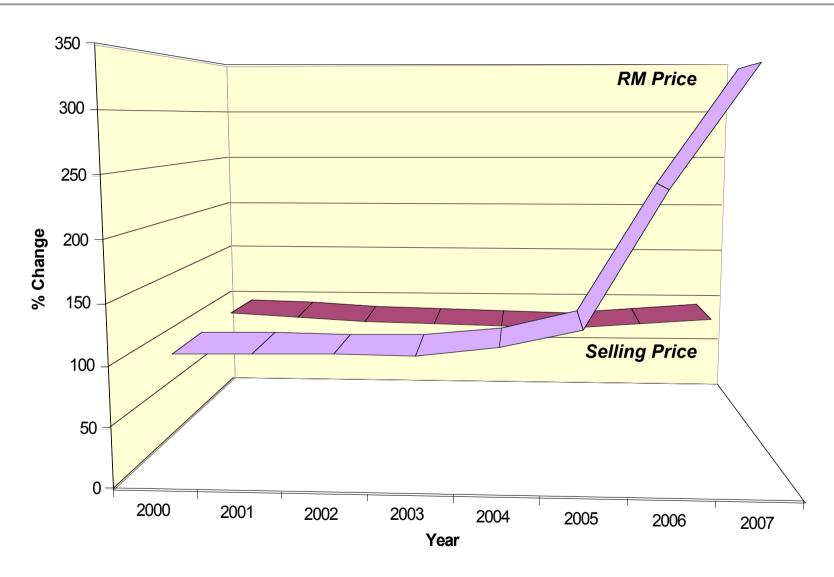


103% increase since 2004

35% increase since 2005

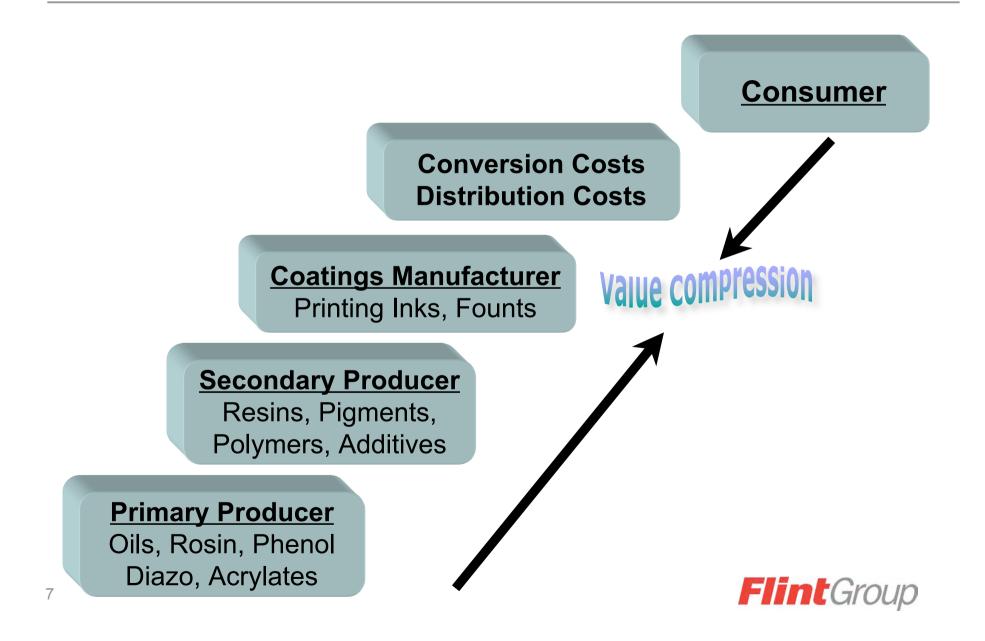


Raw Material Price Escalation





Material Value Chain Analysis



Opportunities to Mitigate

- Sourcing of primary raw materials
 Access to upstream intermediates enabling security of supply and price control
- Increased use of sustainable resource
 Limit our reliance on petroleum diluents by use of vegetable oils. Holistic approach with other Print Industry consumable suppliers to develop a reduced-petroleum platform to ensure surety of supply at a tolerable price.

