

Landscapes for Innovation: *Global and UK market influences*

A Presentation for Science 2 Business (S2B) Hub

Innovative opportunities and solutions for the personal care and cosmetics sector

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2 November 2009, 3.00pm-7.00pm
Durham County Cricket Club

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 **Kline**



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The Global Personal Care Industry

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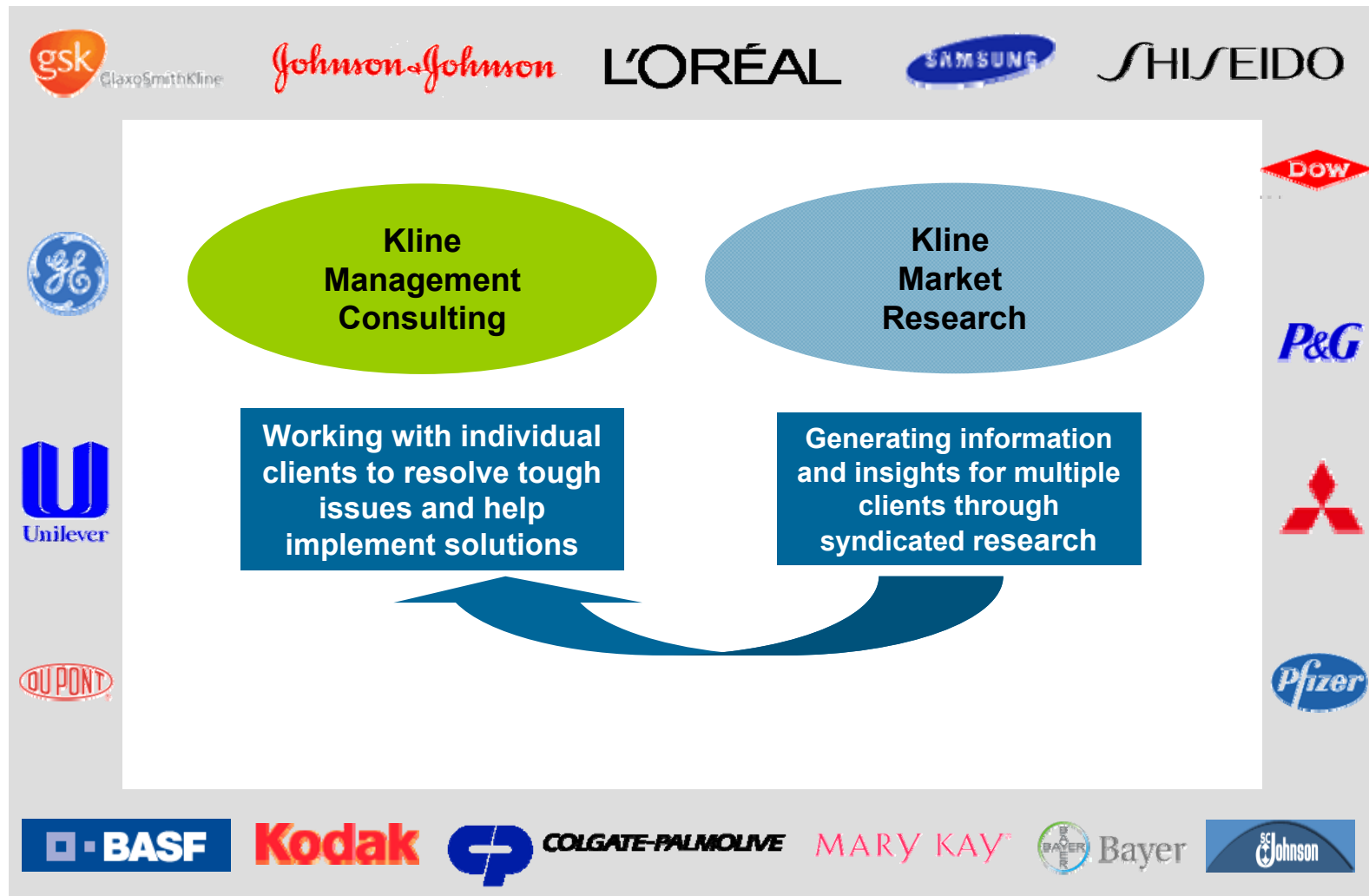
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Kline & Company is a leading management consulting and published market research firm with domain expertise across the personal care value chain



We Serve Clients Around The Globe

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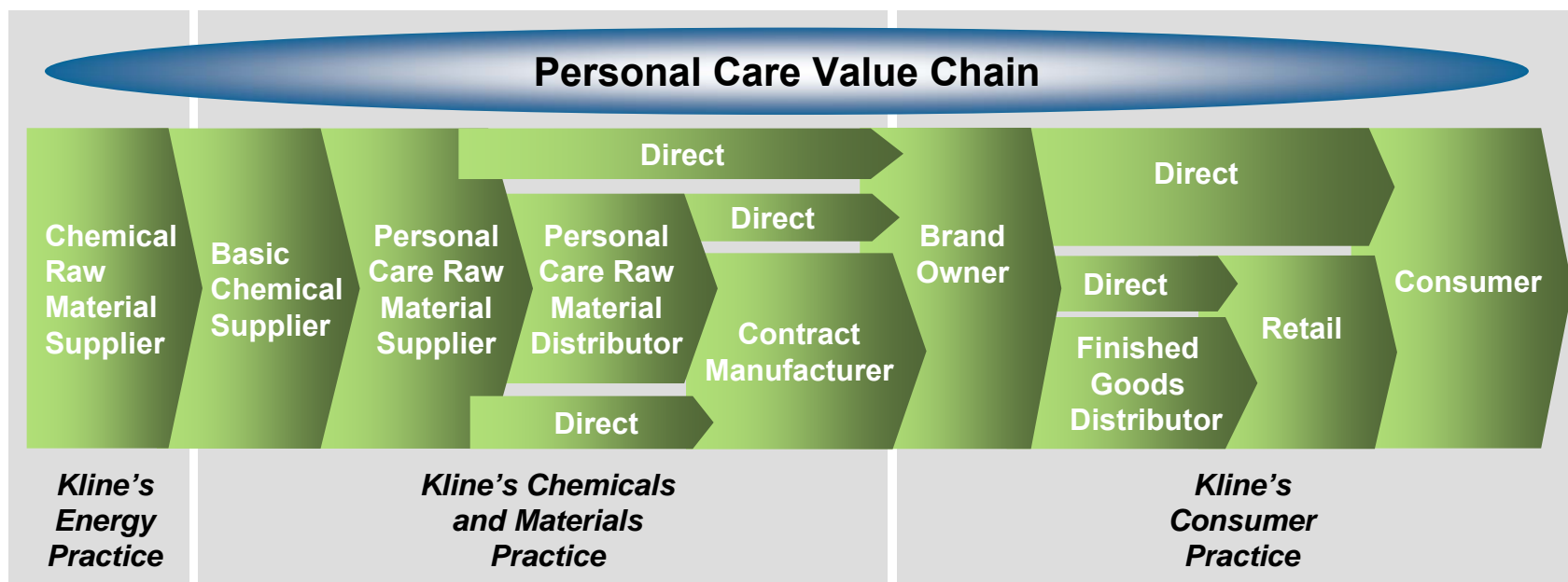
- Kline Europe
 - Brussels, Belgium
 - Oxford, United Kingdom
 - Prague, Czech Republic
 - Milan, Italy

- Kline Asia
 - Shanghai, China
 - Tokyo, Japan
 - New Delhi, India
 - Dubai, UAE

- Kline Latin America
 - São Paulo, Brazil



Kline is the only consulting firm that spans the personal care value chain on a global basis



- Deep knowledge and experience from raw materials to retail channels
- Syndicated reports covering personal care ingredients, products and brands
- People with backgrounds in marketing, sales, chemistry and engineering
- Global network of offices across the Americas, Europe and Asia



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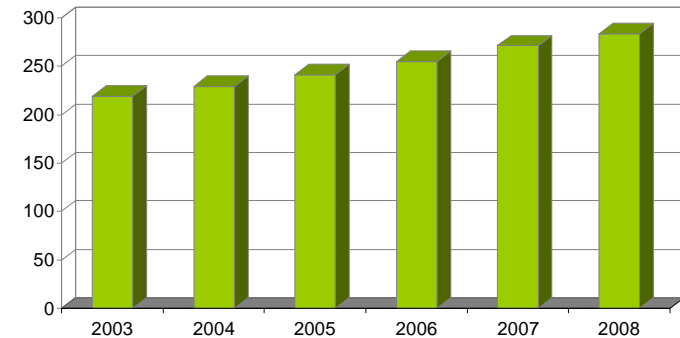
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Personal care is a highly attractive segment of the chemical industry

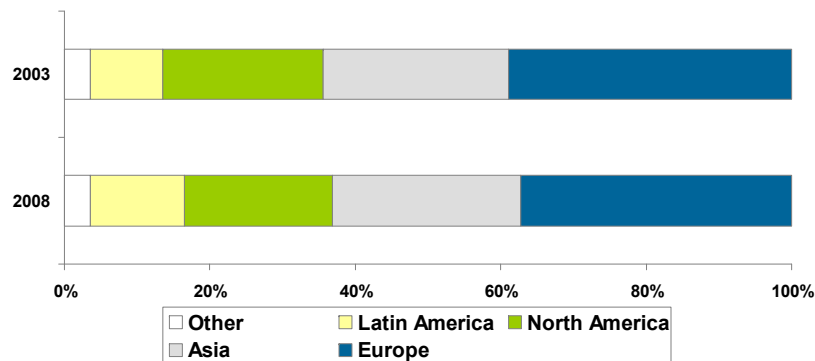
- Global sales of ~\$280 billion (retail level)
- Realizing at least 4.5% global annual growth
- Ability to weather recessions better than other businesses
- Highly sustainable industry drivers e.g. demographics
- Low-capital intensive asset base
- High return on capital

Global Retail Sales ~ US\$280 billion, 2008

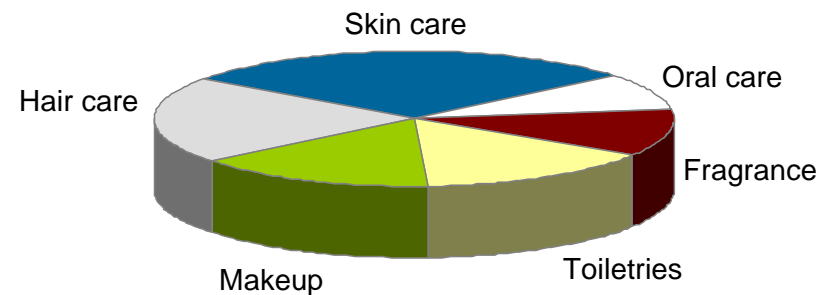


Main Characteristics of Personal Care

Global Personal Care Market Share by Region

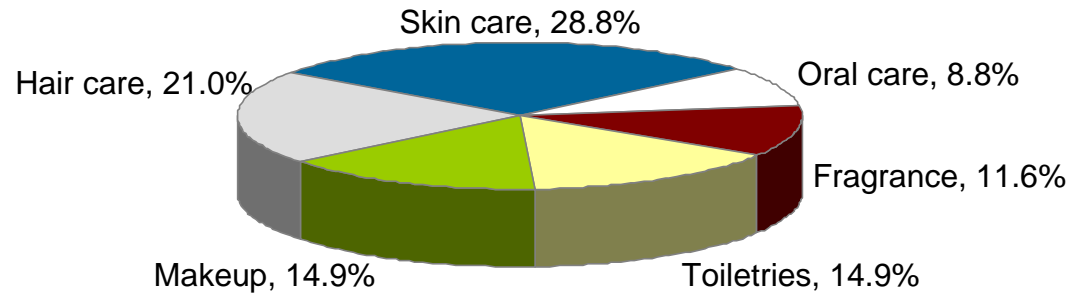


Global Personal Care Market by Segment

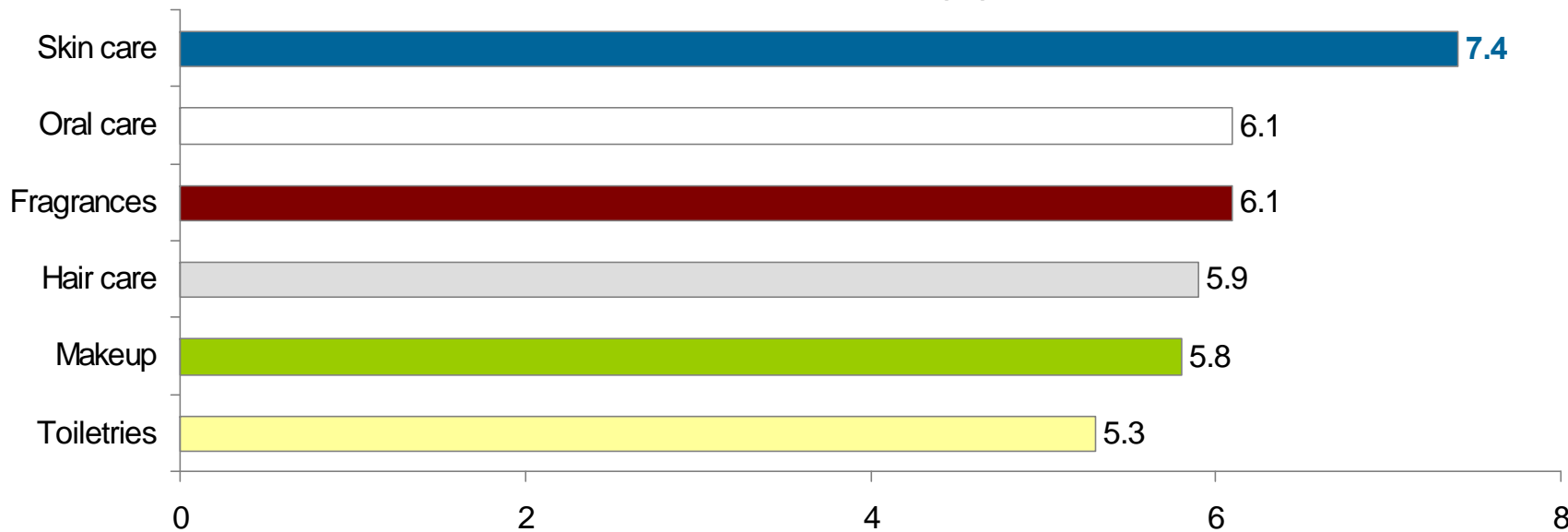


Skin care is the largest and fastest growing product class

2008 Personal Care Market: ~US\$ 280 billion

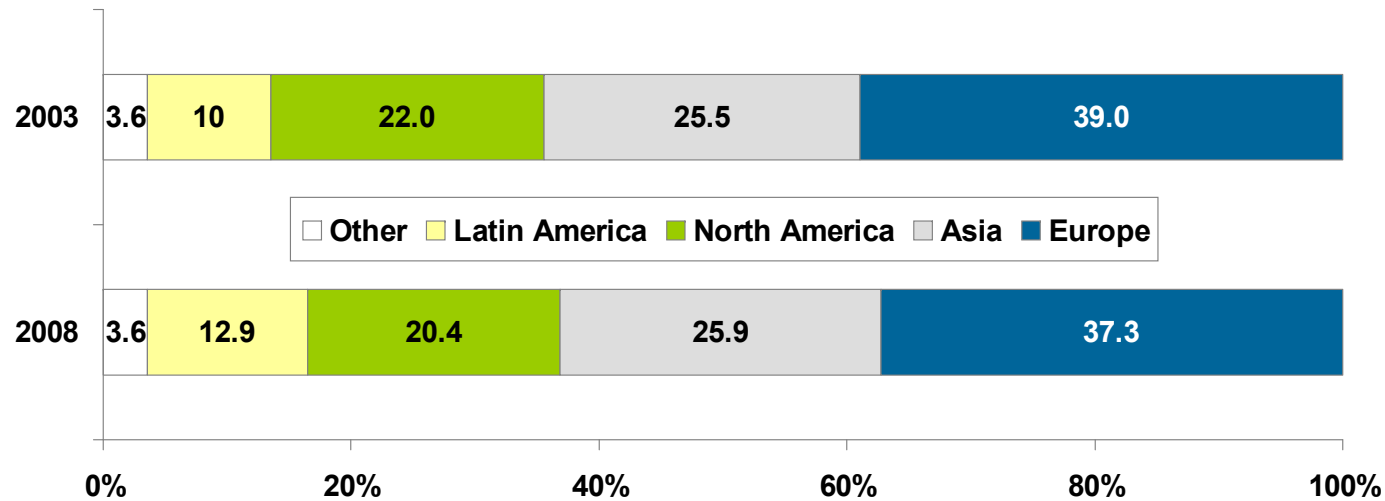


2007 – 2008 Growth (%)



Europe remains the largest region, but is losing share

Global Personal Care Market Share by Region



Growth < 5%	Growth 5 – 10%	Growth > 10%
France	Canada	Argentina
Germany	Mexico	Brazil
Italy	Poland	China
Japan	South Korea	India
Spain	United Kingdom	Russia
United States		

What makes this industry so attractive?

Large market	Sustainable growth
<ul style="list-style-type: none">■ ~\$280 billion at a retail level■ >\$10 billion market for ingredients	<ul style="list-style-type: none">■ Overall global growth 5% to 6% per year■ Underpinned by strong, sustainable drivers<ul style="list-style-type: none">– Demographics– Sustainability and bio-renewability
<ul style="list-style-type: none">■ Ability to compete on the basis of differentiation■ Low capital-intensive asset base■ High return on capital	<ul style="list-style-type: none">■ Relatively low barriers to entry
High Return	Fair Game



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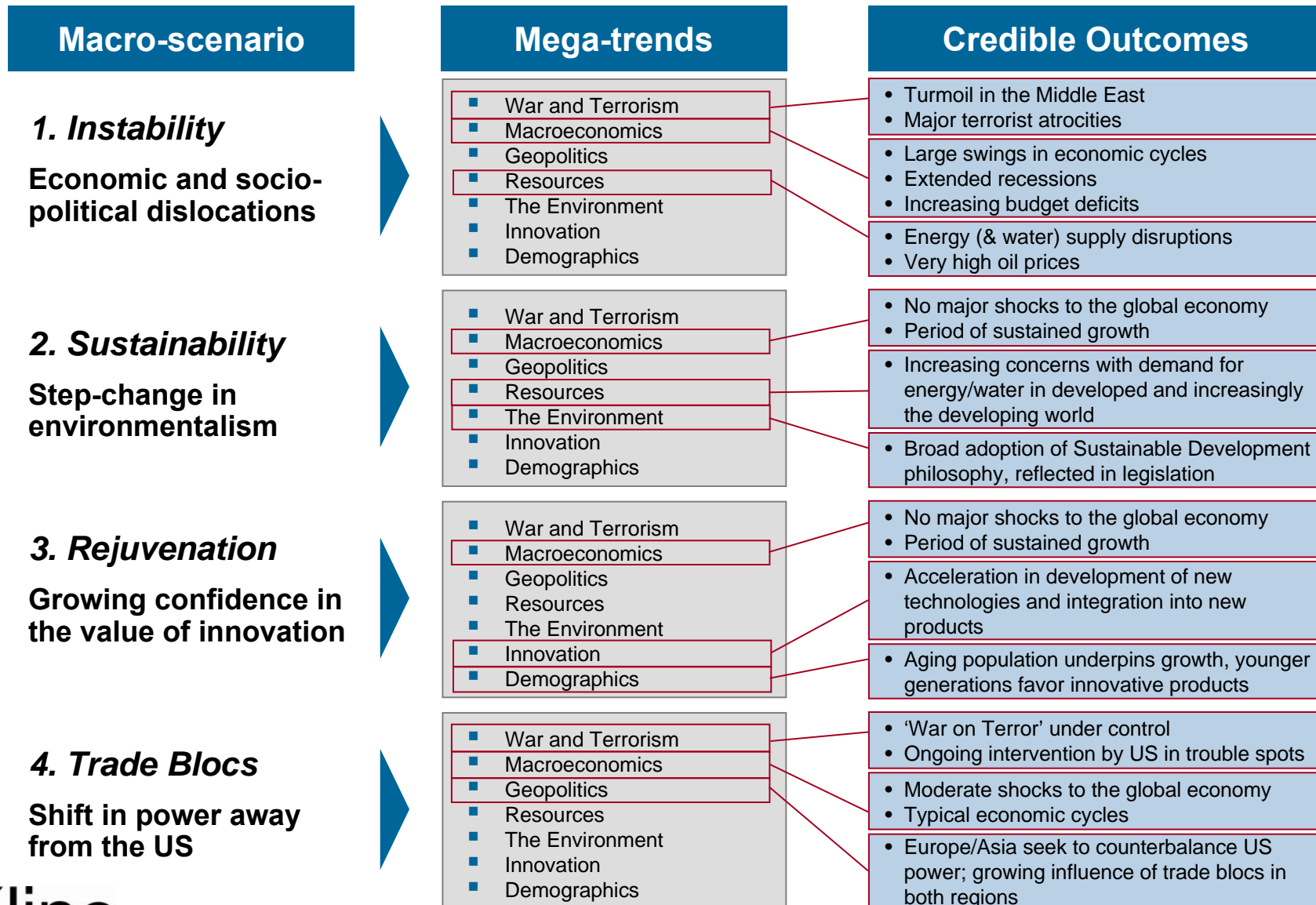
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Some thoughts on Innovation in Recovery

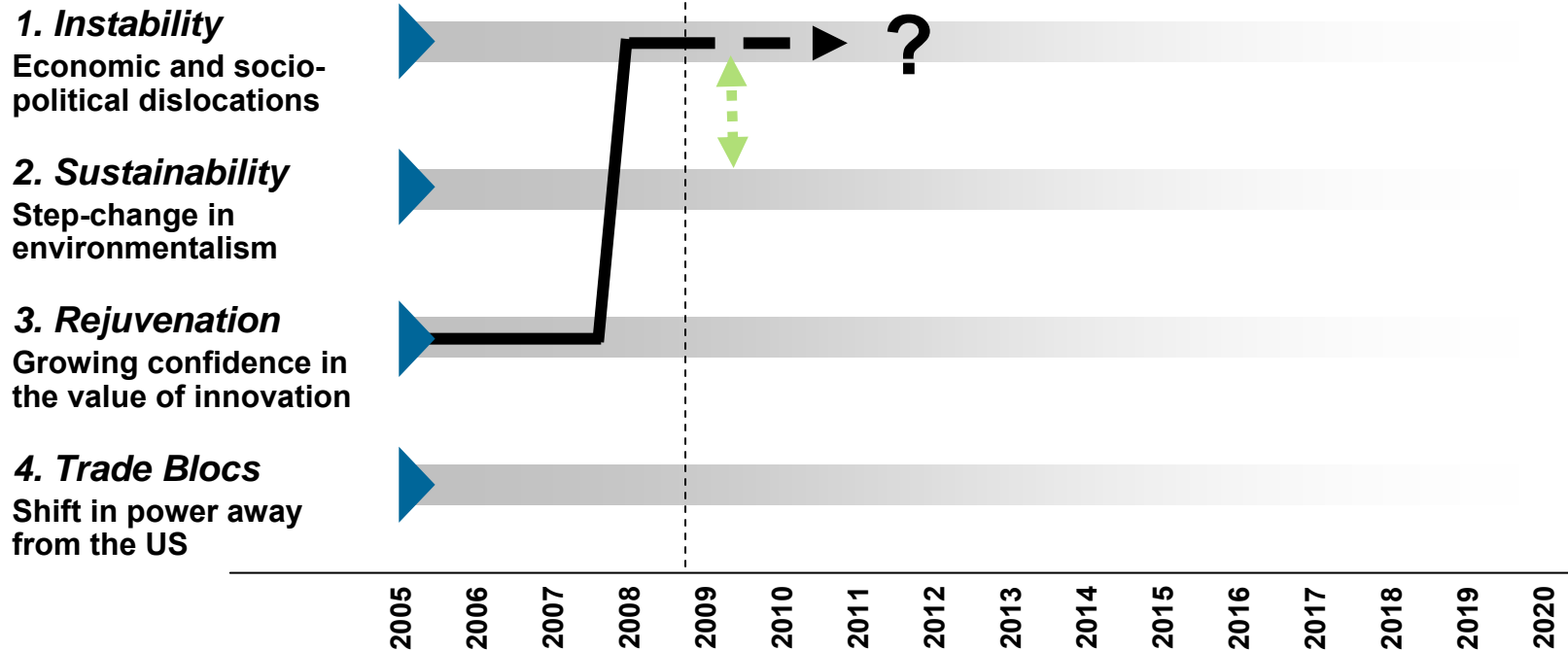
Future Outlook

Kline has four macro-scenarios that describe major inflection points



We are now tracking the 'instability' scenario, resulting in very tough market conditions, yet the apparent survival of 'sustainability'

Recent and Current Scenarios



However, there are early signs of another scenario shift, emphasizing the need for a dynamic approach in the market place

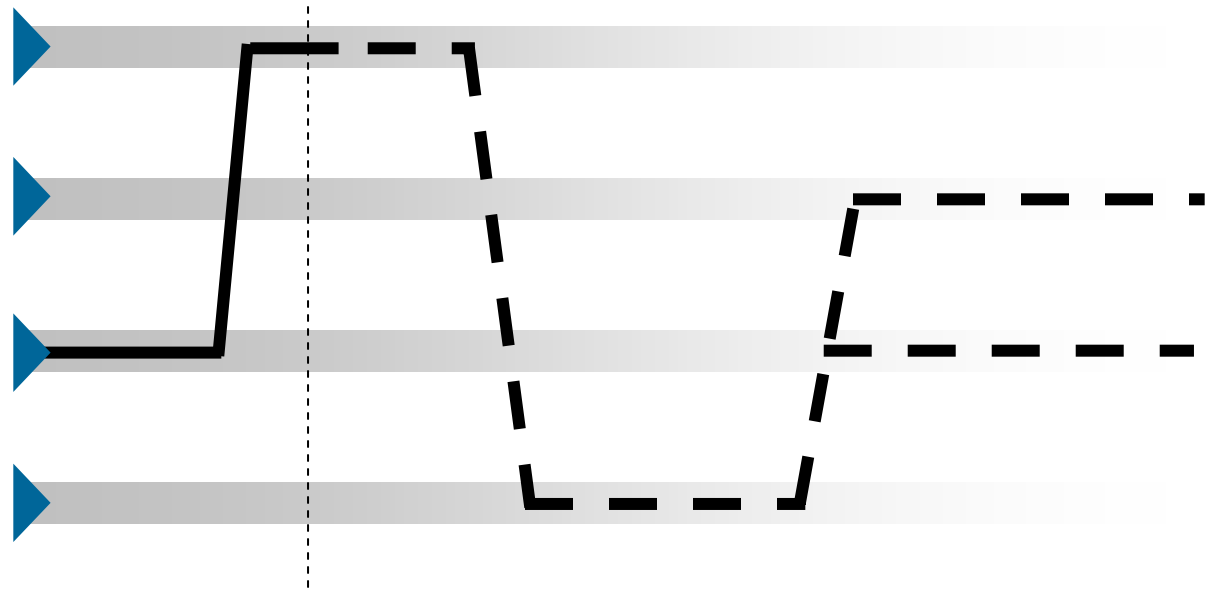
Possible Scenario Transitions, 2009-20

1. Instability
Economic and socio-political dislocations

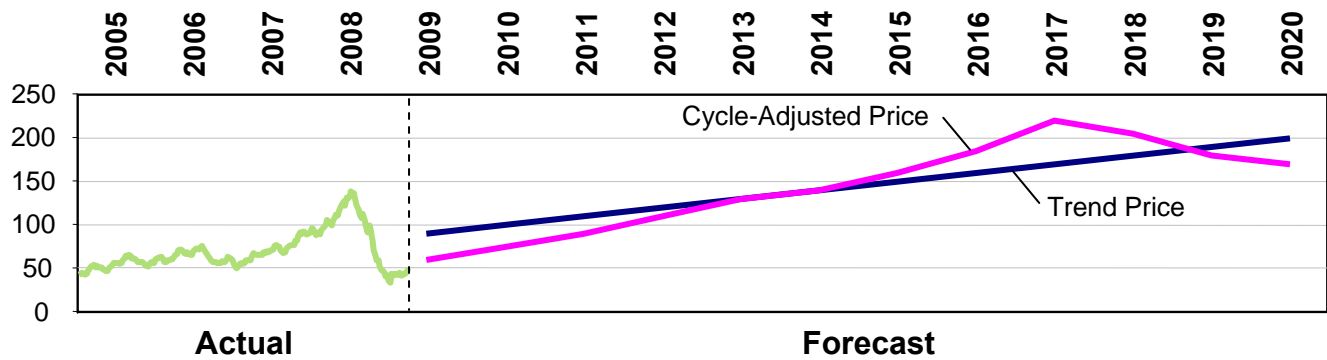
2. Sustainability
Step-change in environmentalism

3. Rejuvenation
Growing confidence in the value of innovation

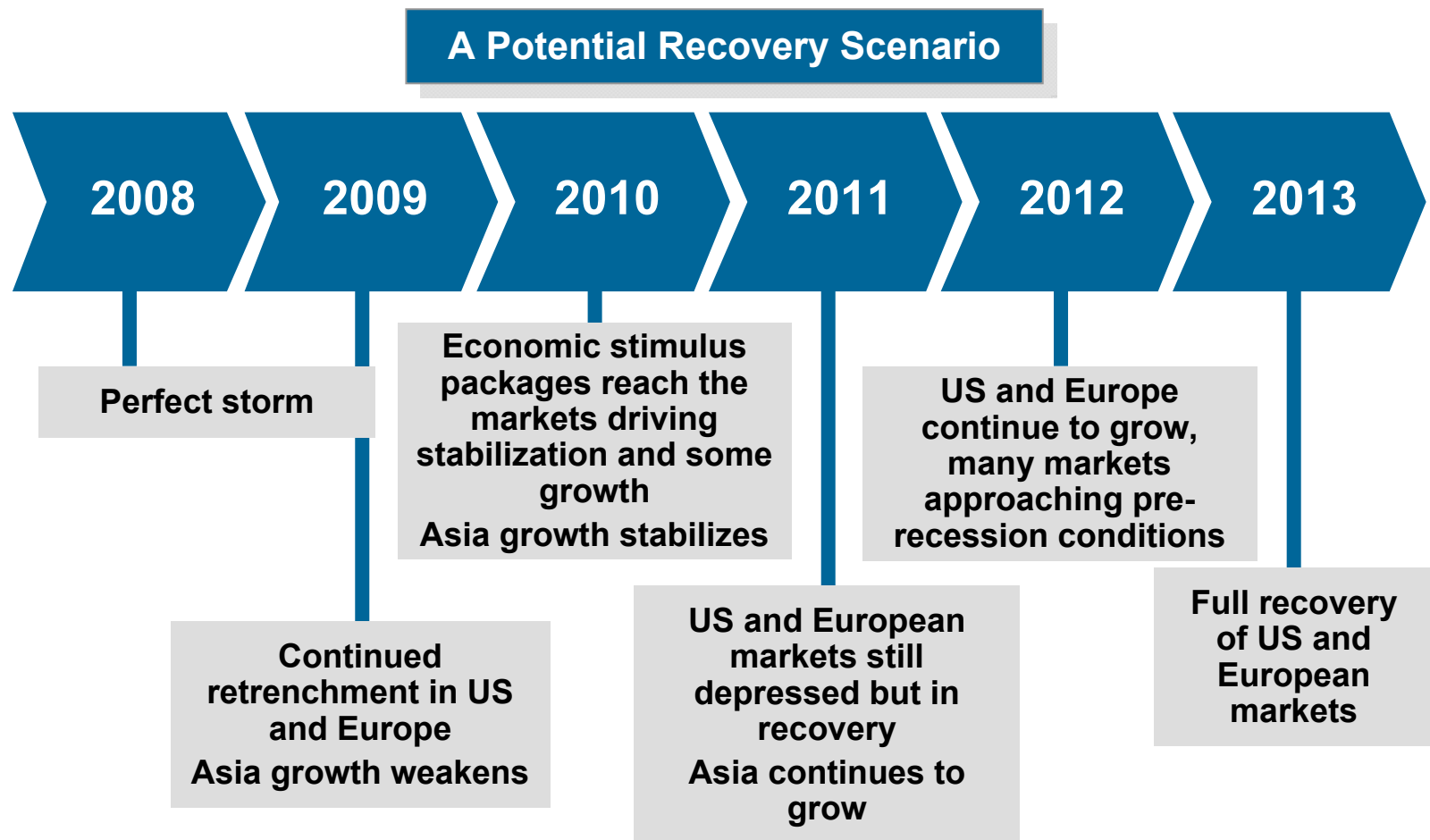
4. Trade Blocs
Shift in power away from the US



Kline's Long Term Oil Price Forecast:
Sweet Crude (\$/Bbl Nominal)



A full recovery may not be likely until 2012/13 based on Kline's analysis of the markets





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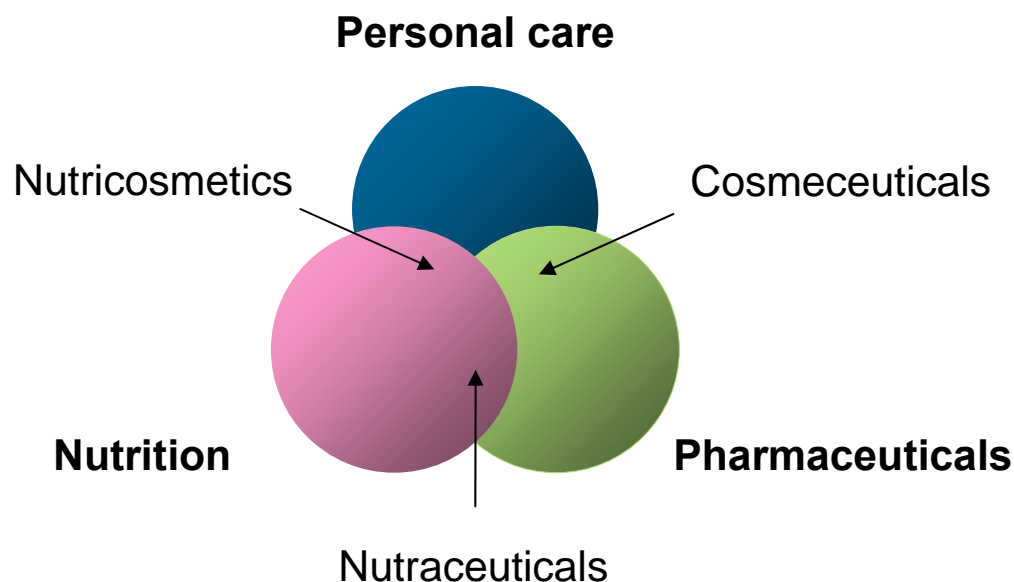
Future Outlook

Ingredients being used within personal care

Some of the commonly used products across various product categories are mentioned below:

Product Category	Product Examples	Application
Antimicrobials	Parabens, imidazolidinyl urea, Quaternium 15, Phenoxyethanol	Skin care products
Emollients	Emollient esters, natural oils	Skin care products
Hair fixative and styling polymers	Amphomer Fixative Polymers, Resyn Fixative Polymers, VP/VA Copolymer, PVP Styling and Fixative Polymers	Hair sprays and styling products
Rheology control agents	Hydroxypropylmethyl cellulose, Carboxymethyl cellulose, Glucose derivatives	Shampoos and conditioners
Skin lightening/whitening actives	Hydroquinone, Arbutin, Kojic acid and derivatives, Licorice extract	Skin care products
Specialty conditioning polymers	Silicones, Polyquaterniums and Cationic Guar	Shampoos and conditioners
Specialty surfactants	Acyl isethionates, Ether carboxylates, Sulfosuccinates, Alkyl polyglucosides	Skin care products
UV absorbers	Octyl methoxycinnamate , Benzophenone-3, Avobenzene	Sun care products

Over the last 15 years, the cosmeceuticals market has emerged from the blurring of boundaries between personal care and pharma



Of all personal care sectors and market adjacencies, cosmeceuticals has experienced the strongest growth, enabled by innovation

The cosmeceutical concept was created by Raymond Reed in 1961

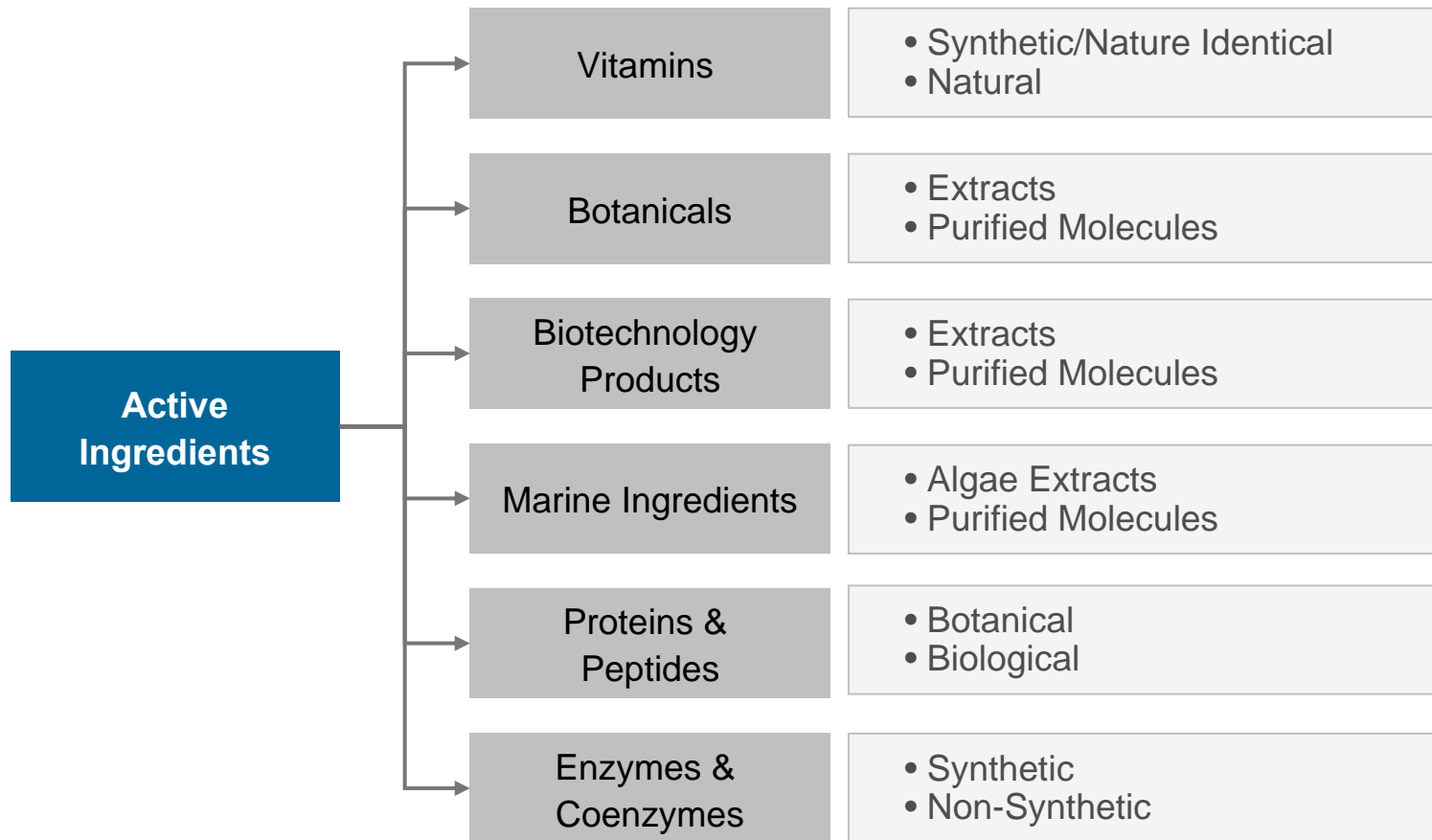
The term “cosmeceutical” was coined in 1980 by Dr. Albert Kligman

Kline defines cosmeceuticals as:
“ Topically applied products, which claim to deliver key skin, hair, or oral-care benefits “

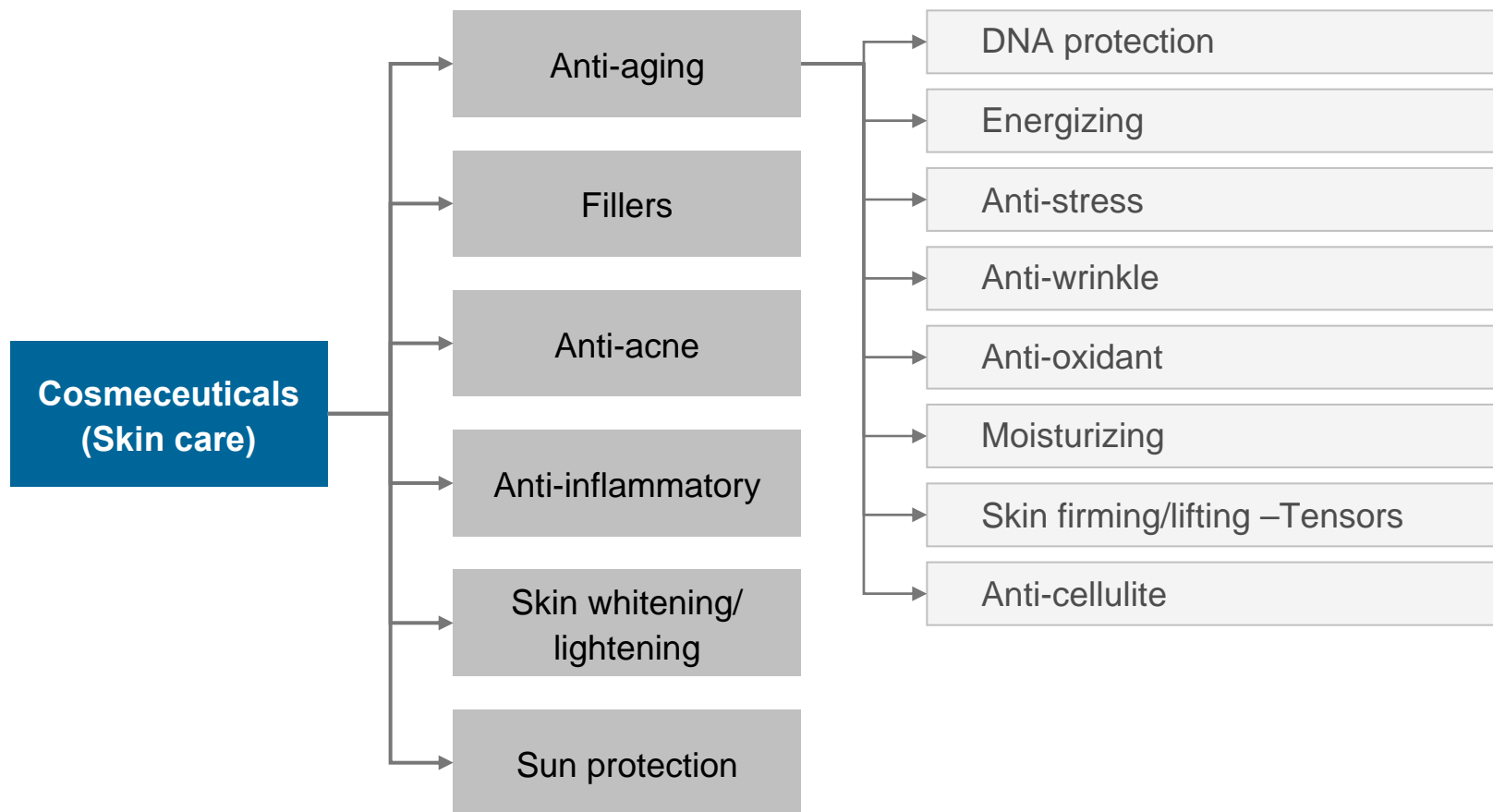
A key differentiating factor for a product to be a labeled “cosmeceutical” is that the formulation contains an enabling technology

Cosmeceuticals now transcend all personal care trade classes

An emerging market of active ingredients is developing in personal care



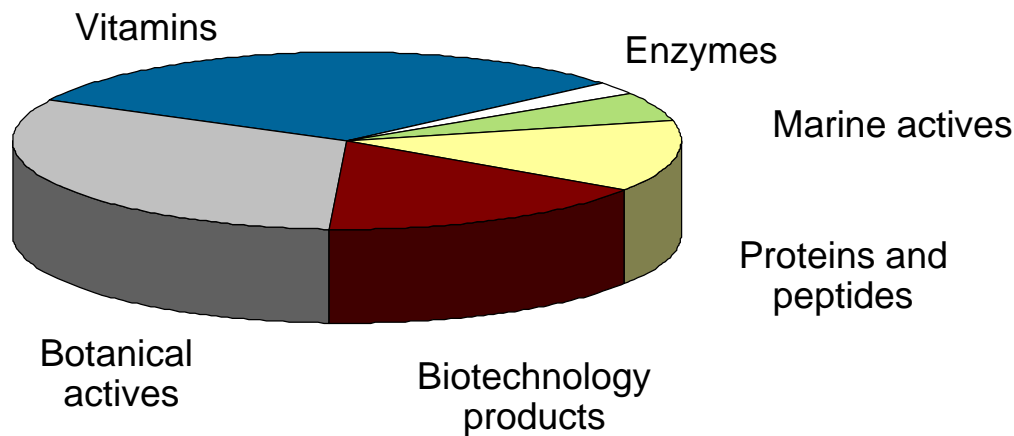
Skin-care cosmeceuticals target a wide variety of performance benefits



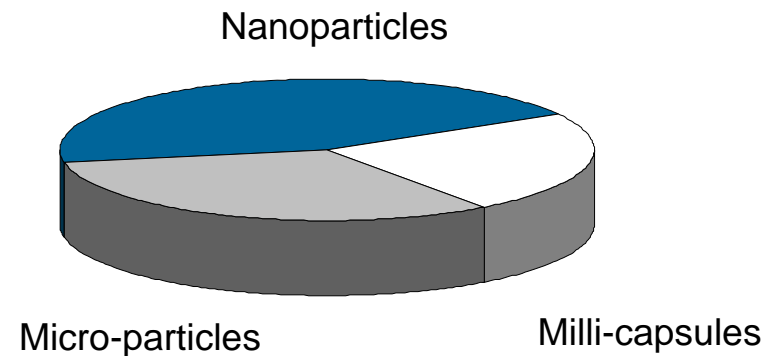
The market for specialty actives and delivery systems in the US and Europe is in excess of US\$800 million

- Specialty actives account for nearly 80% of this market

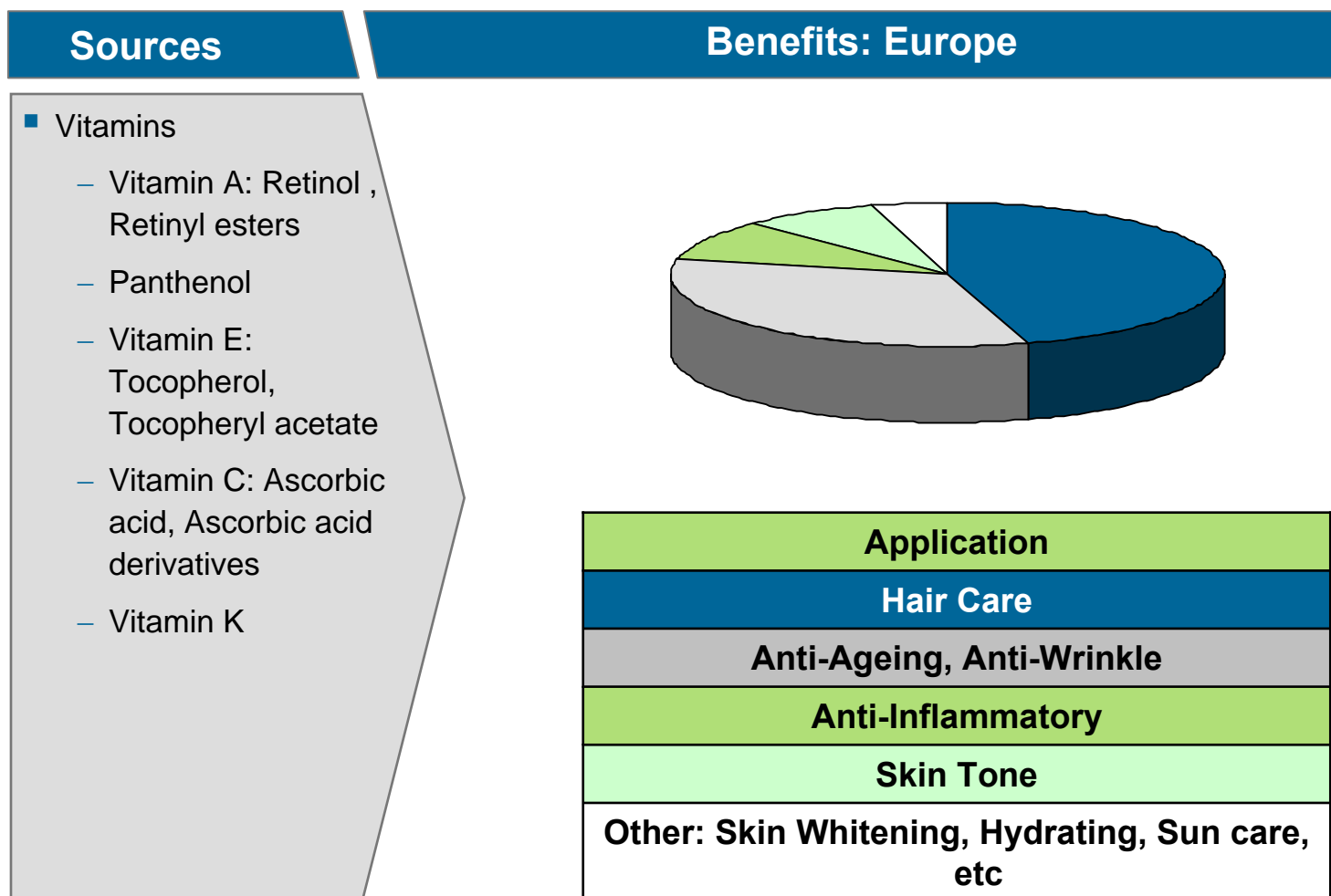
Specialty Actives



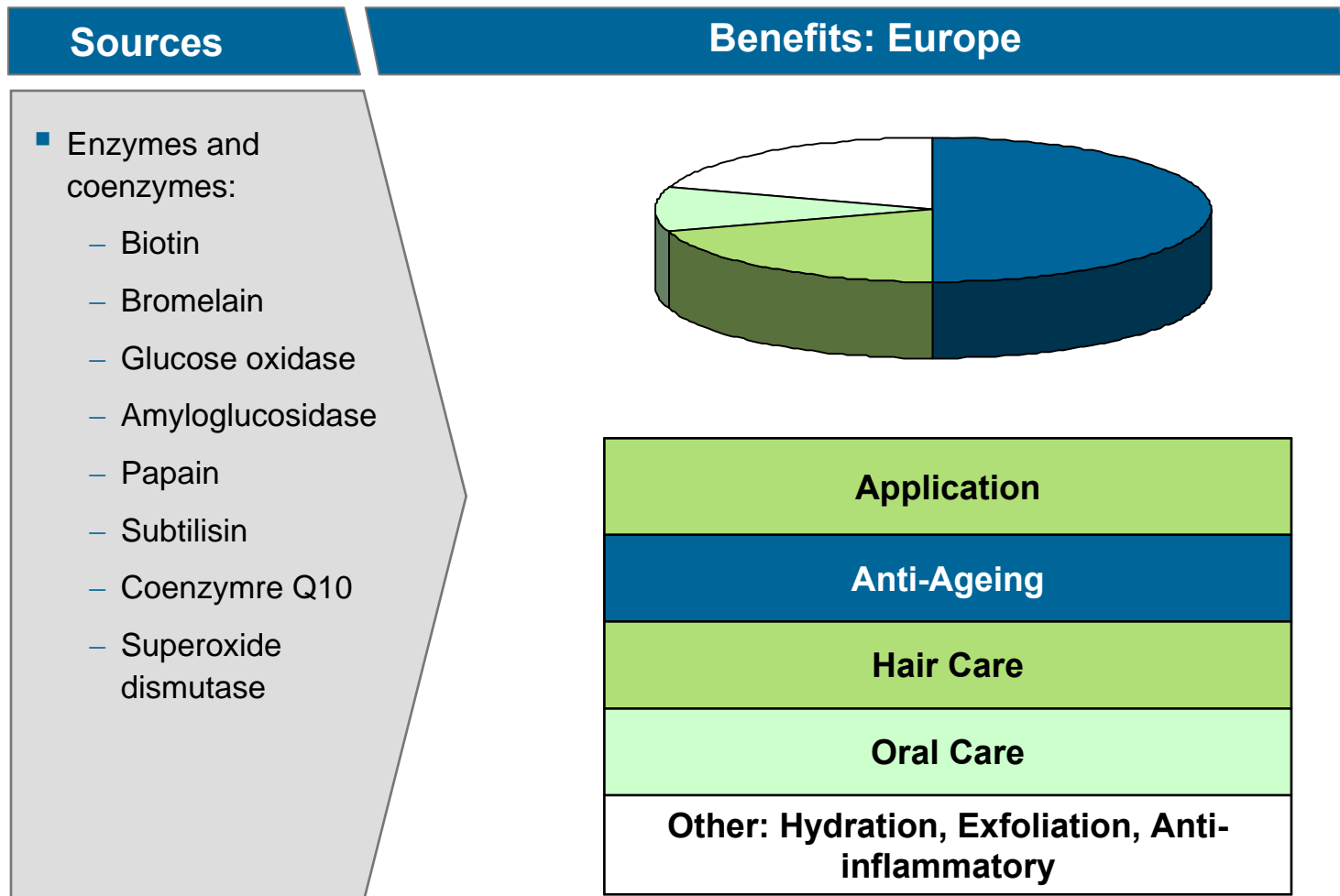
Delivery Systems



Enabling Technologies: Vitamins



Enabling technologies: Enzymes and Coenzymes

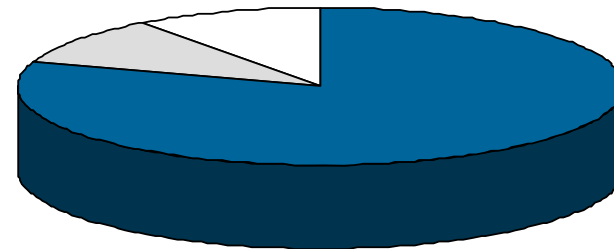


Enabling Technologies: Botanicals

Sources

- Wide variety of bioflavanoids, polyphenols, glucosides, lipids, and anti-oxidants from plant sources:
 - Oat extracts: avenanthamides
 - Green tea extracts
 - Soy extracts: isoflavones
 - Chamomille
 - Bisabolol
 - Grape seed extracts
 - Kinetin
 - Allantoin

Benefits: Europe



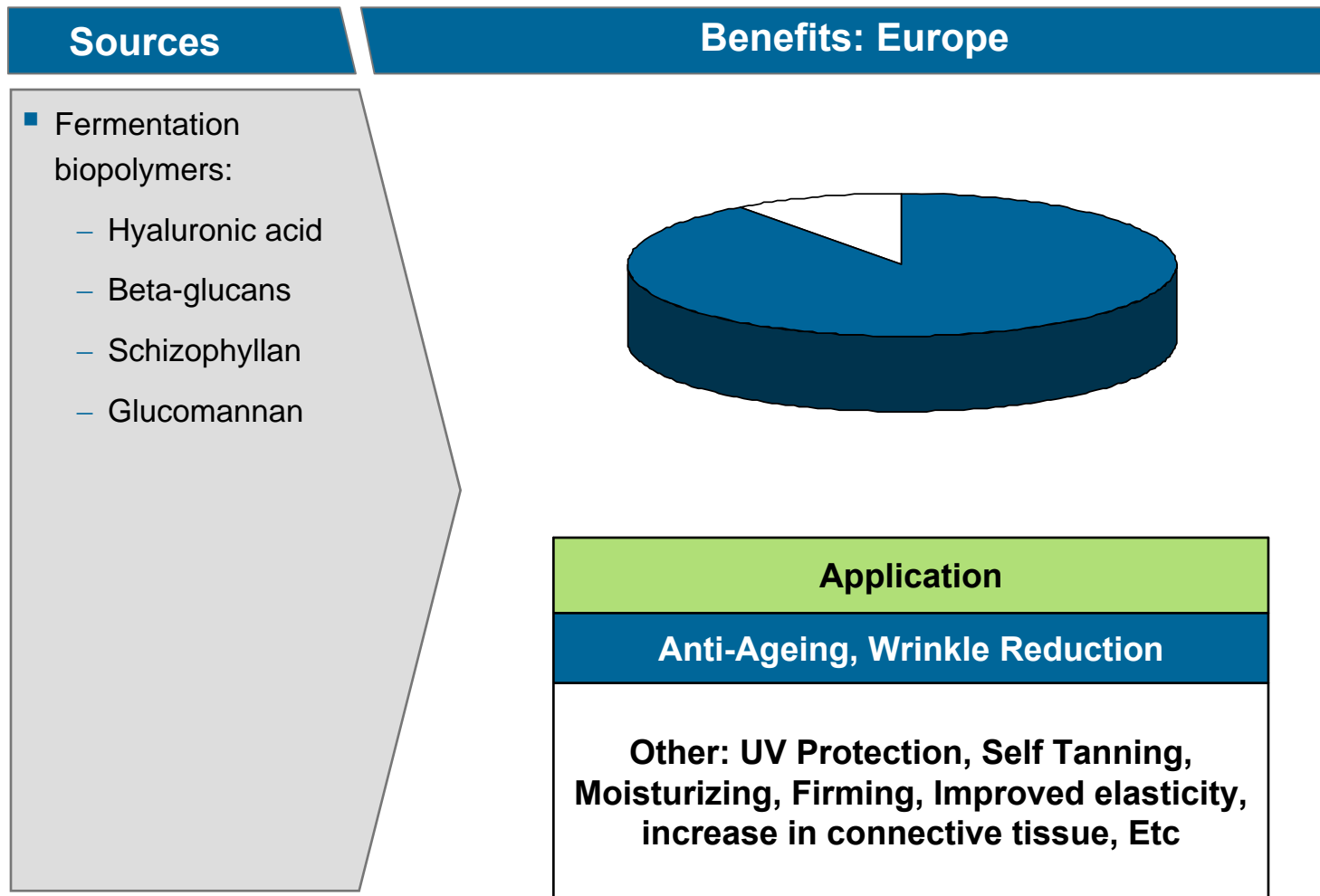
Application

Anti-Ageing, Anti-Wrinkle

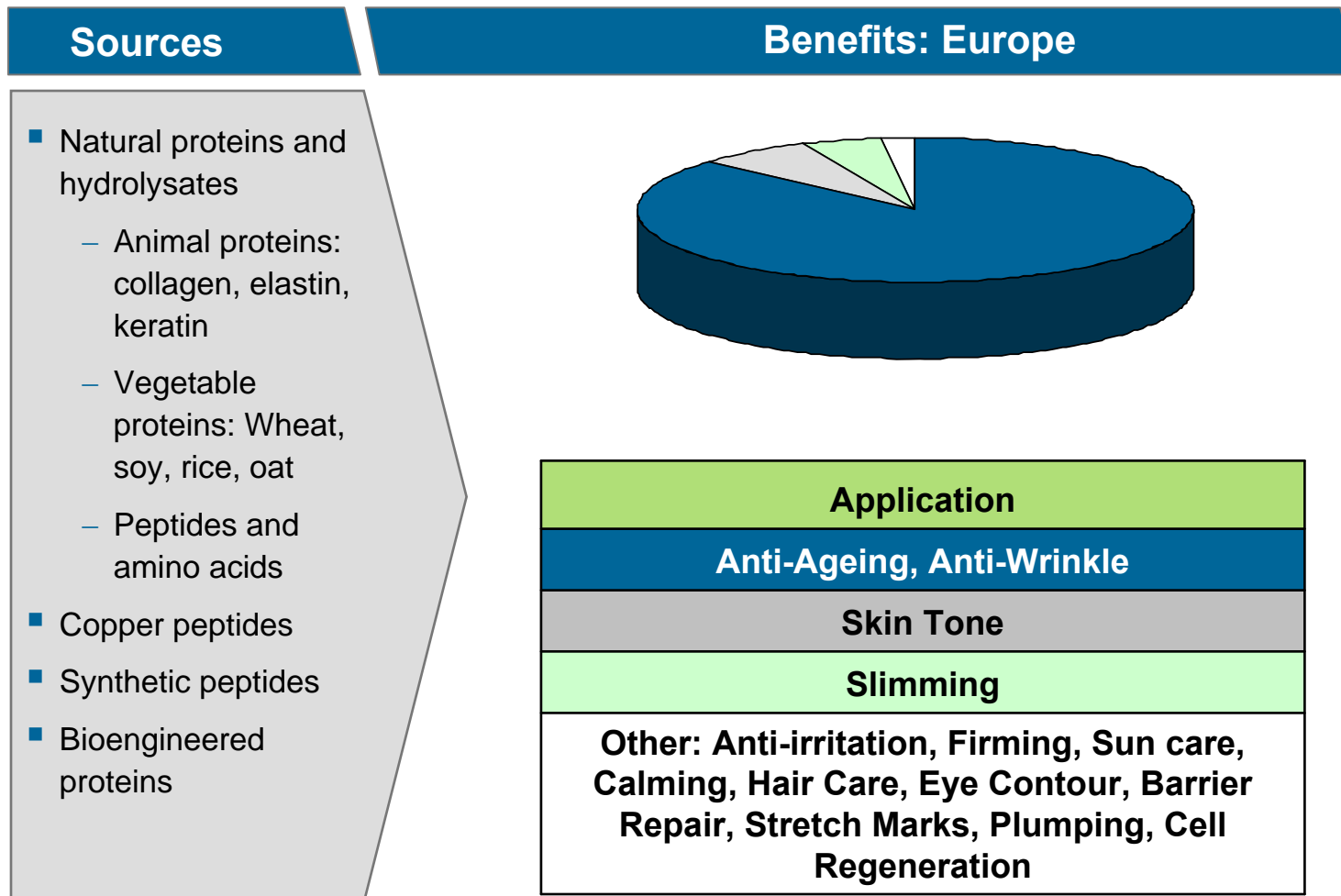
Anti-Inflammatory

Other: Slimming, Skin whitening, Hair care, Increased microcirculation, And many which are specific to the extract molecule or molecule cocktail, etc

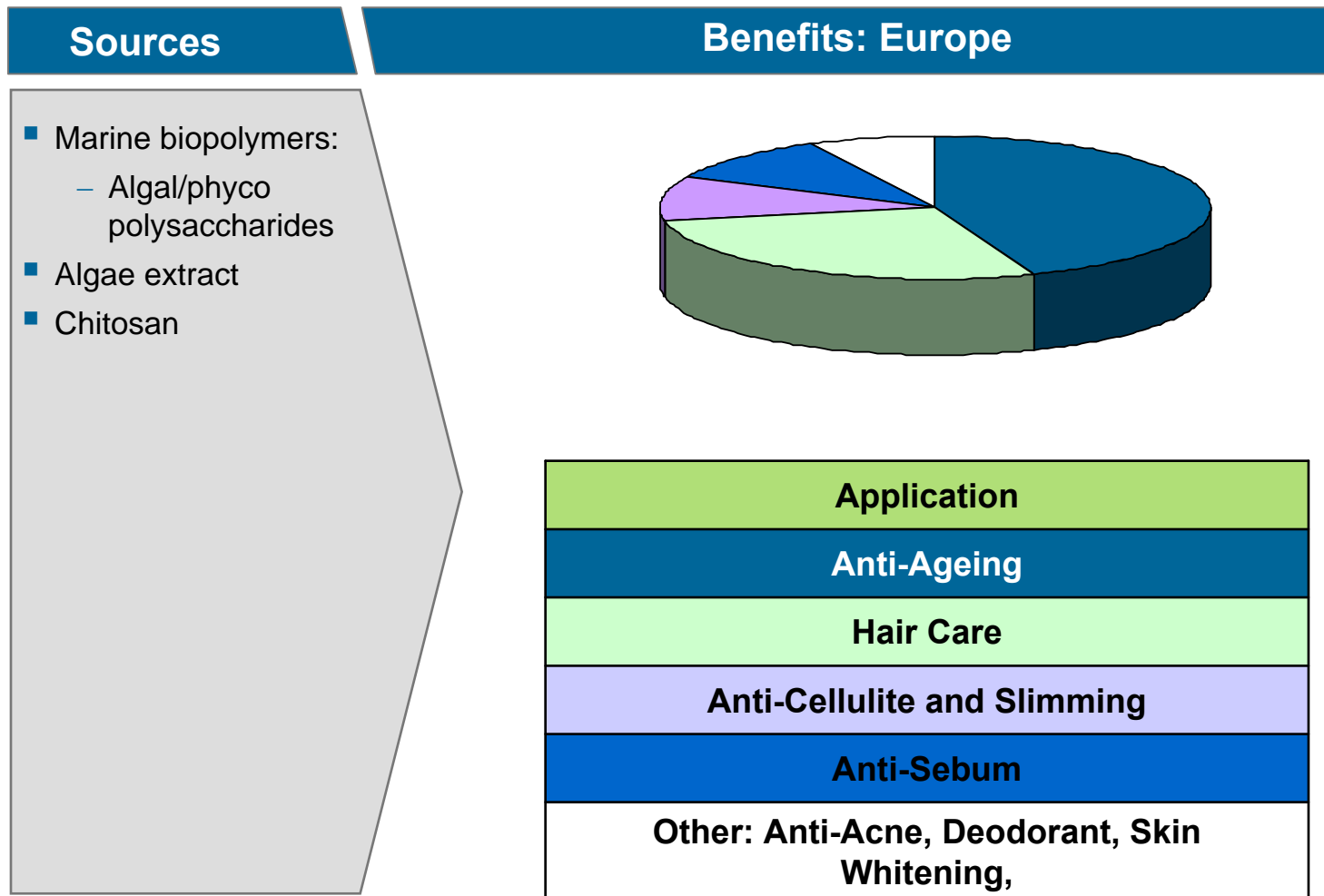
Enabling Technologies: Biotechnology Products



Enabling Technologies: Proteins and Peptides



Enabling Technologies: Marine Ingredients



Enabling technologies: Delivery systems

Sources	Benefits
<ul style="list-style-type: none">▪ Nanoparticles▪ Microcapsules▪ Microsponges▪ Patches▪ Films	<p>Enabled new generation of anti-aging products:</p> <ul style="list-style-type: none">▪ Stabilizing actives▪ Controlled release▪ Reduces irritancy▪ More effective active delivery▪ Improved/enhanced penetration▪ Longer shelf life▪ “Stay in place” technologies:<ul style="list-style-type: none">▪ Enables design and commercialization of new cosmeceuticals with extended and optimized period of action by “fixing” actives on the skin (e.g. SkinVisible – Invisicare)

Example of cosmeceutical innovation

Luxury channel: actives and delivery systems

La Prairie Cellular Cream Platinum Rare



- “Skin transforming formula that recharges the skin’s electrical balance with pure Platinum to ensure ageless performance, protects the skin’s DNA, and replenishes moisture continuously for a look of soft splendour”
- Contains:
 - Nano-sized particles of negatively charged platinum suspended in colloidal platinum water (reportedly serves as an electron donor to maintain a proper electrical balance in the skin)
 - Active cocktail (peptides, vitamins, and antioxidants)
 - Controlled-release nano-sized hesperidin Smart Crystals to protect DNA in the cell nucleus and act synergistically with Resveratrol for antioxidant protection and improve microcirculation in skin
 - Climate-activated Moisture Matrix which adjusts to humidity and temperature
- GBP 714.00 for 50 ml

Example of cosmeceutical innovation

Masstige channel – actives

Procter & Gamble's Olay Regenerist Range



- Professional dermatologist-type products positioned in mass-market channels
- “For dramatically younger looking skin without drastic measures”
- Contains (varies by SKU)
 - Peptide: palmitoyl pentapeptide 4
 - Carnosine (dipeptide)
 - Vitamins: Tocopherol, niacinamide, etc
 - Elastin
 - Sodium Hyaluronate
 - Plant extracts: Camelia Sinensis Extract, etc
- Olay Regenerist 3 Point Treatment Cream 50ml = GBP 29.99
- Olay Regenerist Wrinkle Filler 30 ml = GBP 24.99
- Olay Regenerist Replenishing Cream 50 ml = GBP 19.50

Example of cosmeceutical innovation

Professional channel: actives

Kinerase C8 Peptide Intensive Treatment



- “Reduces the depth and appearance of wrinkles caused by repetitive facial expressions up to 34.9%”
- Contains:
 - SNAP-8: a neuropeptide
 - Kinetin: antioxidant
 - Stabilized vitamin C
 - Green Tea Eco
 - Vitamin E
 - Beta-glucan
 - Hyaluronic acid
- GBP 71.40

Example of cosmeceutical innovation

Direct channel – Actives

DermaPlus' DermaLastyl- β Concentrated Skin Rejuvenation Formula



- Incorporating technology developed for “wound healing on the battlefield”
- Contains:
 - Elastotropin
 - Hyaluronic acid
 - Peptides: Matrixyl 3000, Argireline
 - Prolisel (Selenomethionine)
 - Also contains tocopheryl acetate and panthenol
- \$89 for 2 oz

Example of cosmeceutical innovation

Males grooming luxury channel – actives



- Jack Black Protein Booster Skin Serum with Peptides, Antioxidants and Organic Omega-3
- “Advanced anti-aging serum offers a daily-dose of anti-aging defense”
- Contains
 - MATRIXYL 3000 (from Sederma/Croda) peptide
 - SYN-AKE (from Pentapharm/DSM) advanced myo relaxing peptide (claims to mimic a peptide found in snake venom of the Temple Viper)
 - RENOVAGE (from Sederma/Croda) skin lightening/ moisturizing agent
 - DYNALIFT (from Sederma/Croda) sorghum stalk juice which claims to tighten and smooth skin
 - Organic plantago and green tea as antioxidant
 - Vitamins A, C and E
 - Organic Omega-3 to soothe and brighten skin
- ~\$60 (2oz)



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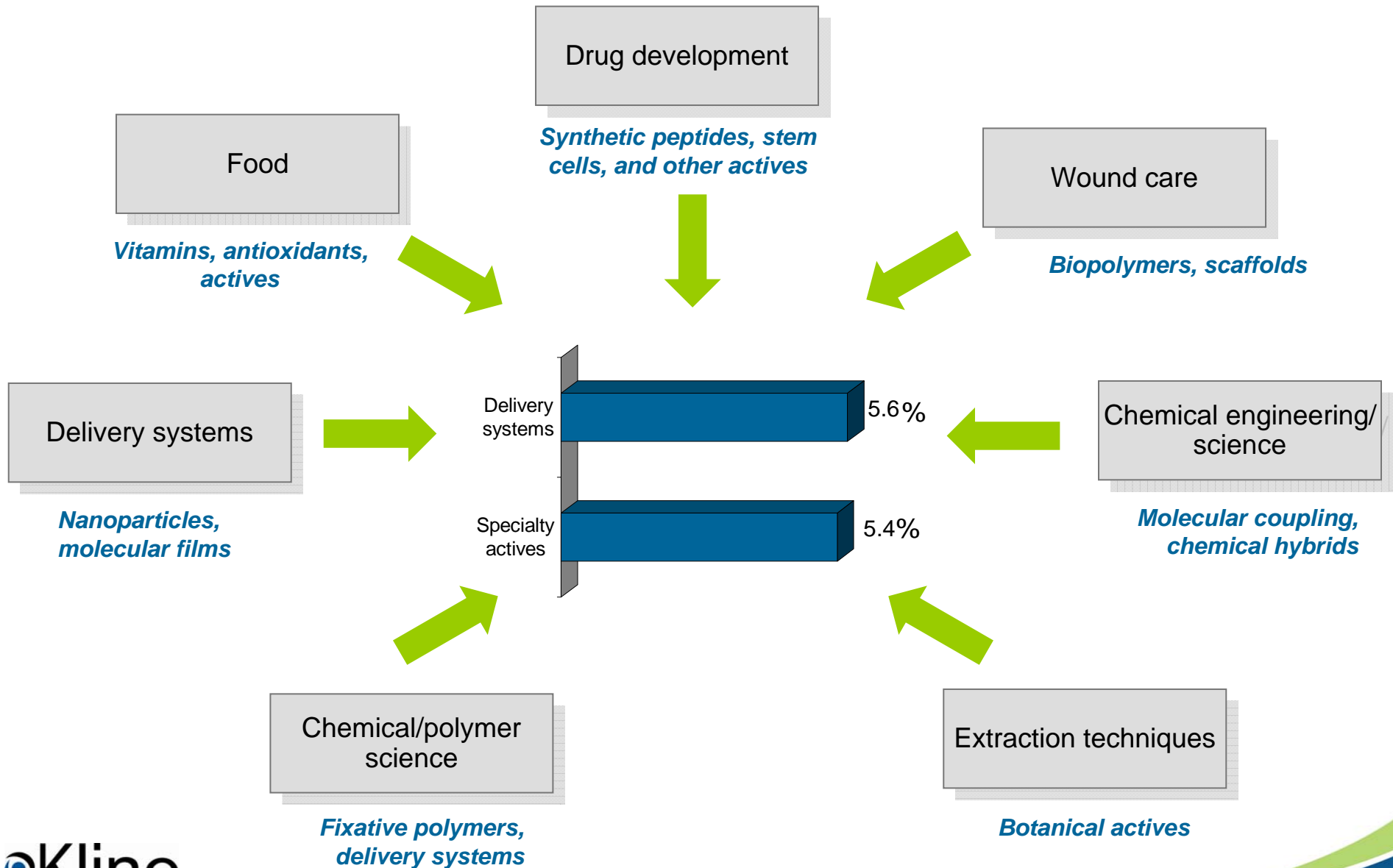
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Enabling technologies will continue to come from a variety of sources



Skin care will likely continue to be at the forefront of adopting new innovative and break-through technologies in the short term

Drivers

- Market size
 - Largest, fastest growing personal care sector
- Transcends all trade classes
 - Professional, super luxury, luxury, specialty, direct, masstige, mass
- Sustainable demographics
 - Baby boomers wishing to retard and reverse the aging process

Future Innovation Focus

- The perfection and adoption of improved stay-in-place technologies
 - Will provide more effective, “dialed-in” active delivery
- Development of next generation actives, including more efficient uv sunscreens
- Epidermal growth factor and transforming growth factor development
- Hormonal creams
- Stem cells

Kline is a worldwide consulting and research firm dedicated to providing the kind of insight and knowledge that helps companies find a clear path to success. The firm has served the management consulting and market research needs of organizations in the chemicals, materials, energy, life sciences, and consumer products industries for 50 years. For more information, visit www.KlineGroup.com.

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