

ENTREPRENEURIAL STRATEGY

STARTER SEMINARS 2019-2020
SESSION 3



ENTREPRENEURIAL STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

Perspectives on entrepreneurial strategy

ENTREPRENEURIAL
STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

Perspectives on entrepreneurial strategy

“ Entrepreneurial strategy is the means through which an organization establishes and re-establishes its fundamental set of relationships with its environment. ”

 J. Murray
1984

“ It arises with the creation of a new organization: it must innovatively establish itself in the business ecosystem to survive. Once established, it is evoked by potential or actual misfit between organization and its ecosystem. ”

 J. Murray
1984

“

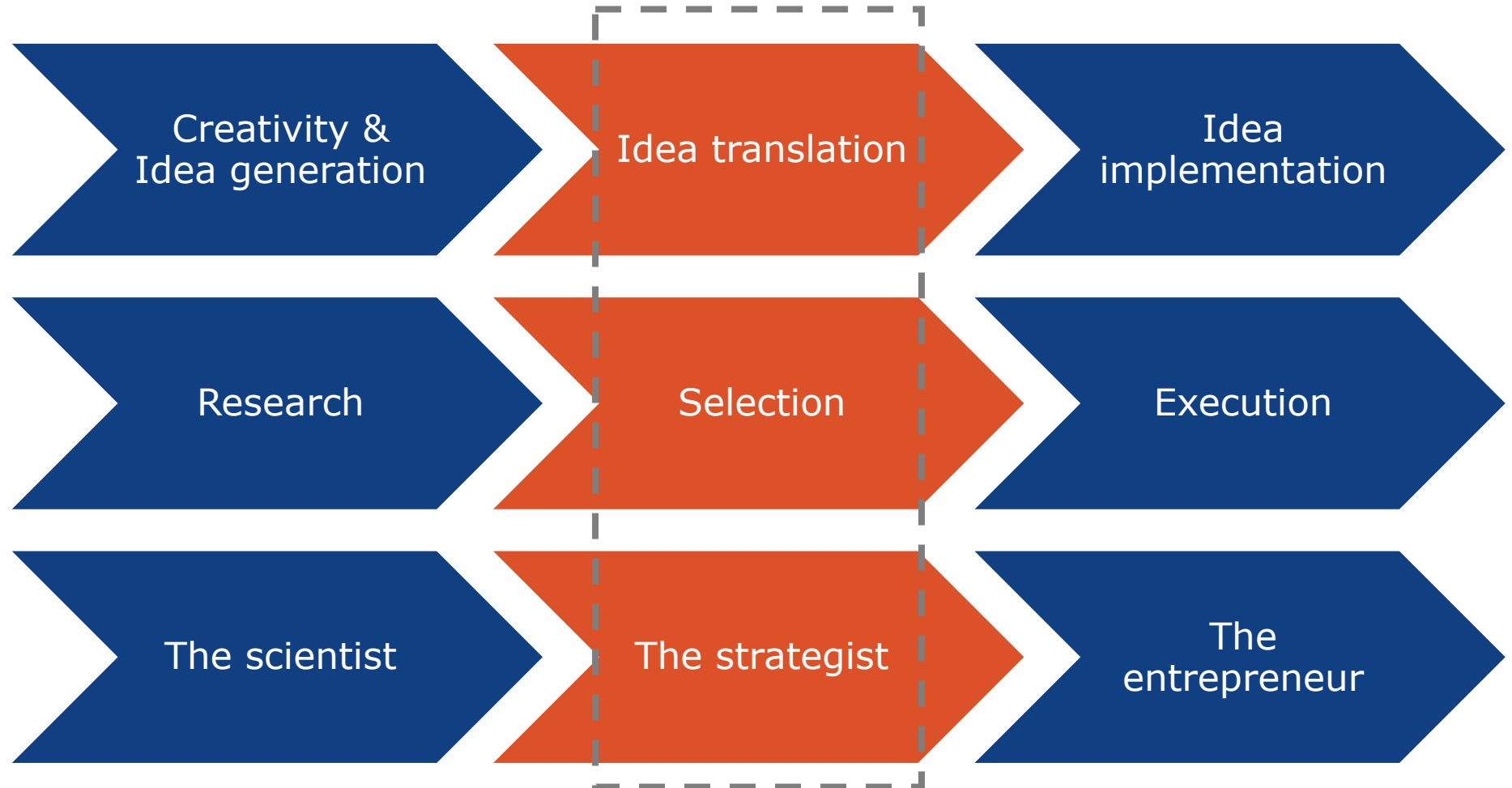
You know what strategy is,
Marc? Something falls on
your plate and you decide to
do something with it. Or not.

”



Ignace De Bock
2004

WORKFLOW

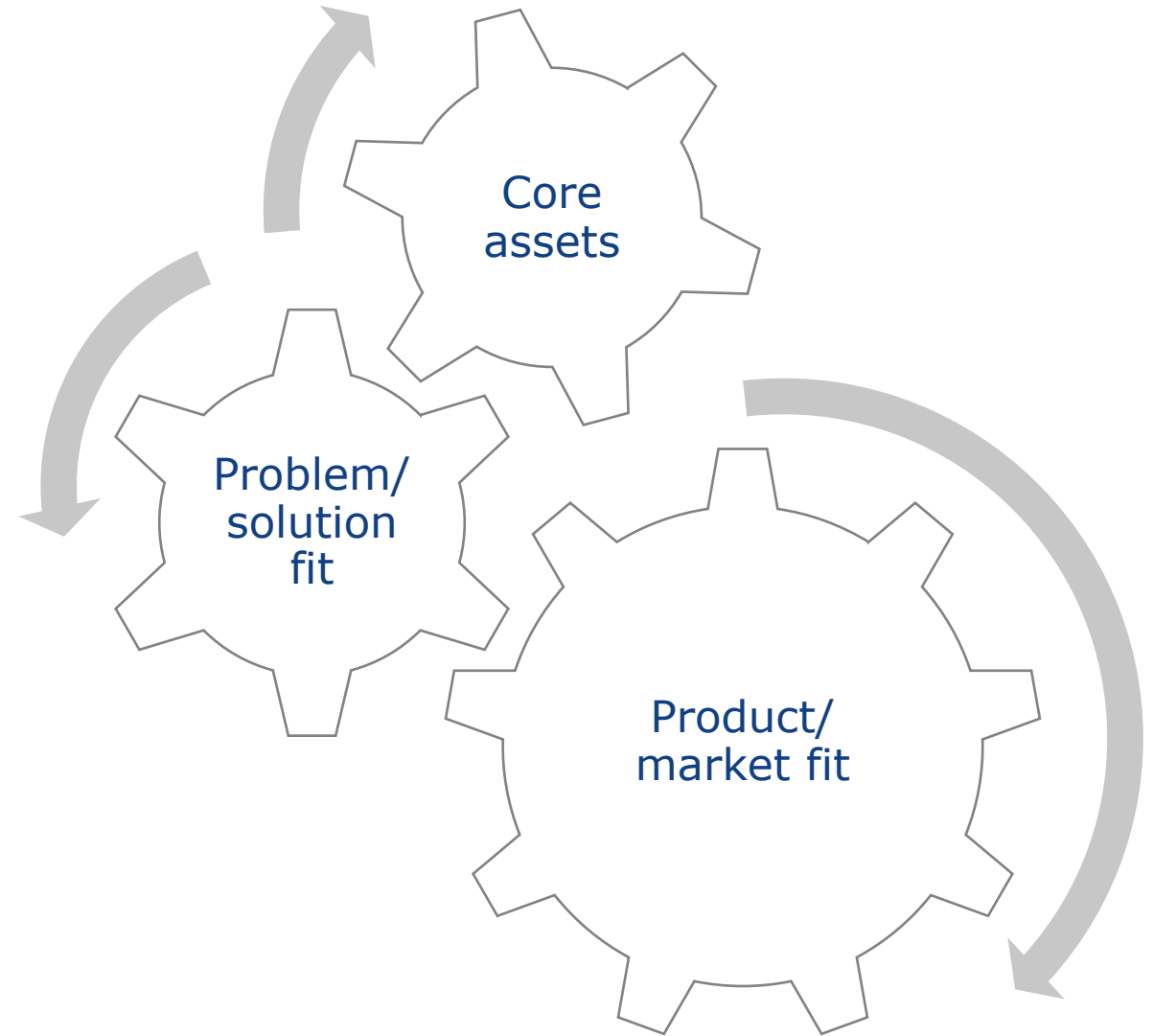


ENTREPRENEURIAL STRATEGY

KEY DIMENSIONS



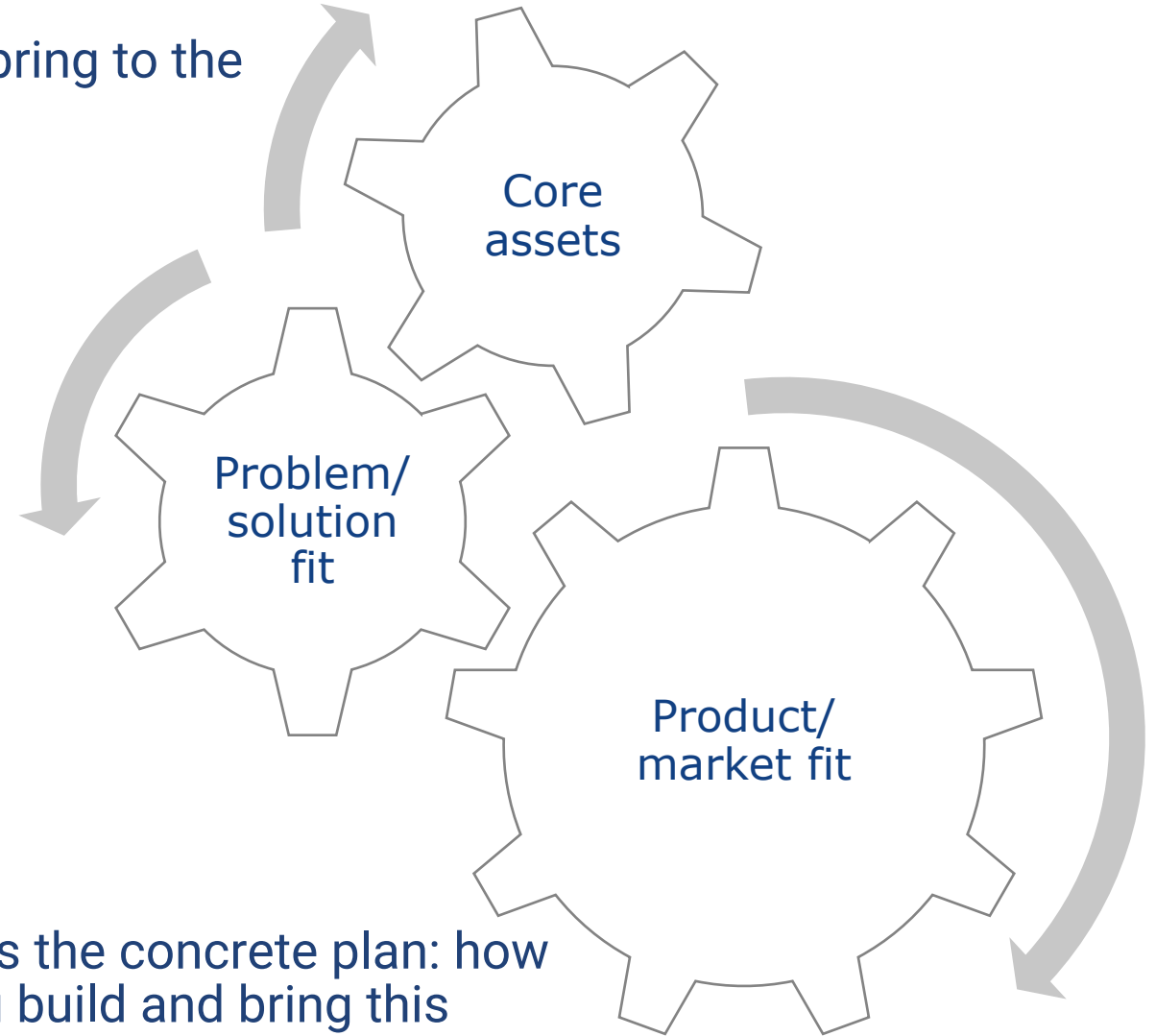
- Strategy is finding a viable spot in the ecosystem and setting out a course towards it
 - There is this whole world of companies organized in supply chains, around standards...
 - There is this permanent evolution due to innovations and industry life cycles
 - How do you fit?
- Covering these dimensions are a key preoccupation of every entrepreneurs
 - Not answering them (convincingly) is a major issue
- These questions apply as well for startups and for established companies that initiate new projects



KEY DIMENSIONS (FOR DUMMIES)



- What do you bring to the table?
- What offering do you build based on this; what is the added value of this offer for your customers?
- What is the concrete plan: how do you build and bring this offering to the market? Will you make money?



ENTREPRENEURIAL STRATEGY

KEY DIMENSIONS AND QUESTIONS



Core assets	Problem / Solution fit	Product / Market fit
What exactly are your core assets?	Who is your customer?	What will be your place in the supply chain/ecosystem?
Are your core assets exclusive?	What is his/her pain?	Who will be your key partners?
In what stage of finalization are they? What remains to be done?	What does he/she do today?	Can you make money with this product / market combination?
Do you have freedom to operate?	What solution do you offer?	What resources do you need to start, grow?
What strategy fits your core assets?	Why are you better than alternatives?	Is it an attractive market?
	Are there any show-stoppers?	

ENTREPRENEURIAL STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

Perspectives on entrepreneurial strategy

“

It all starts with something
(relatively) unique you have
in hand: core assets. These
assets allow for the
continuity of your business.

”



CORE ASSETS

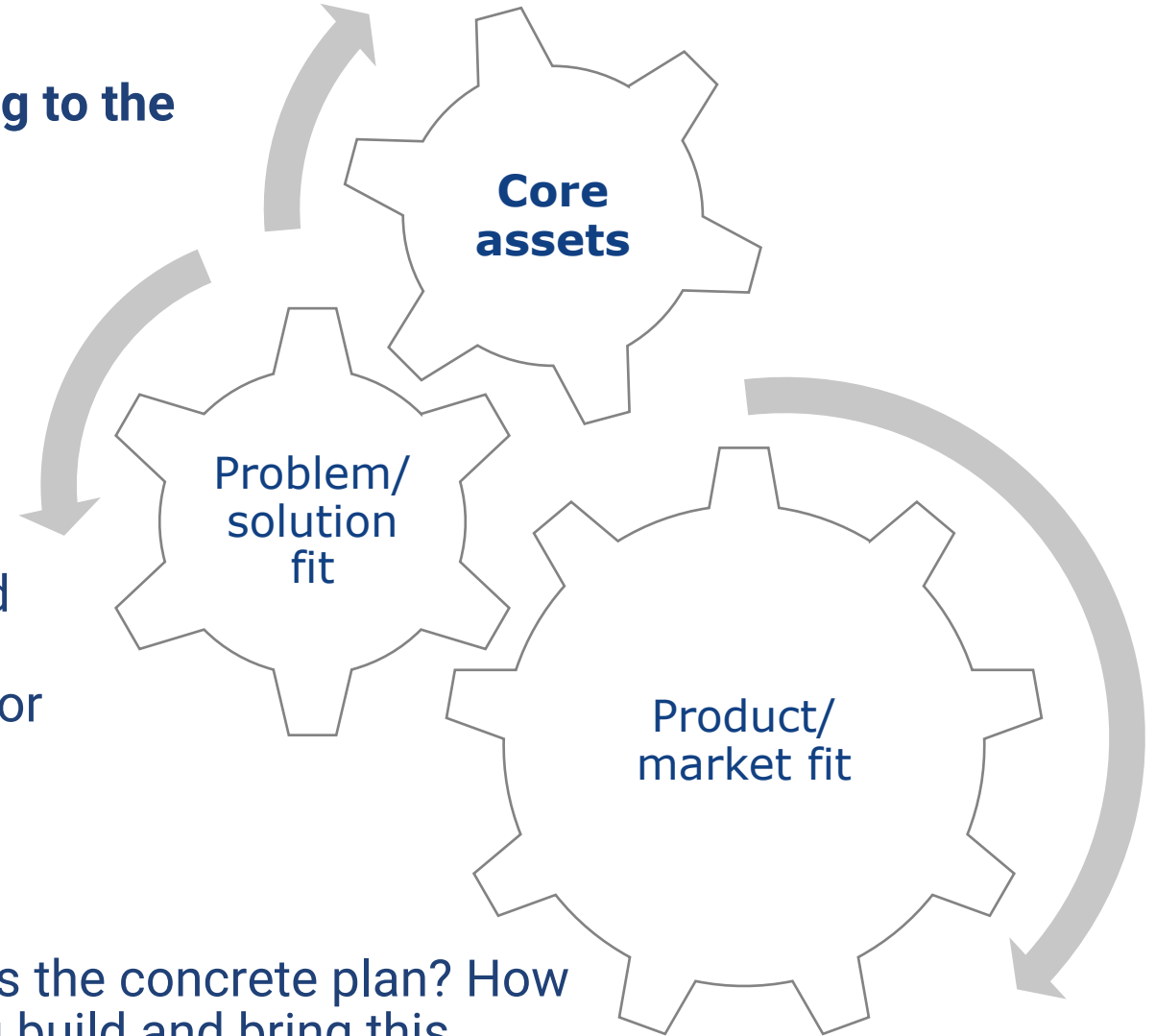
KEY
DIMENSIONS
(FOR DUMMIES)



- What do you bring to the table?

- What offering do you build based on this, what is the added value of this offer for your customers?

- What is the concrete plan? How do you build and bring this offering to the market



ENTREPRENEURIAL STRATEGY

KEY DIMENSIONS AND QUESTIONS



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In what stage of finalization are they? What remains to be done?	Why are you better than alternatives?	What resources do you need to start, grow?
Do you have freedom to operate?	Are there any show-stoppers?	Is it an attractive market?

WHAT ARE CORE ASSETS?

ABOUT CORE ASSETS

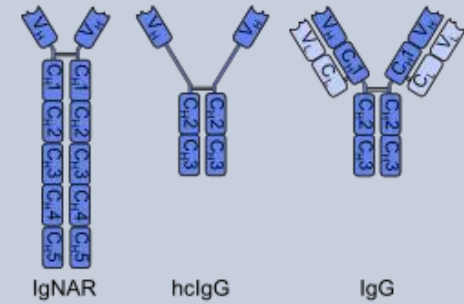


- Note on terminology
 - Assets, Competencies, Capabilities
 - Generally interchangeable terms; we use the term 'assets' (except when we cite authors)
 - "Kernactiva, kerncompetenties"
 - Resources and capabilities
 - Resources are tradable and non-specific to the firm
 - Capabilities are firm-specific, often tacit knowledge
- We use core assets as overarching term.

WHAT ARE CORE ASSETS?

ABOUT CORE ASSETS

- A **patent** on the antibodies of camels
- A **secret** formula for a refreshing drink
- A **brand** name everybody knows and likes
- An **installed base** of users on a social network
- The IT **infrastructure** and algorithms to deliver a perfect search experience to 1.000 billion requests per year
- The **expertise** to build 50 kilometer long tunnels
- The **talent** to design clothes, write songs
- Iron Man, Elephant Man, Conchita Wurst...



WHAT ARE CORE ASSETS?

ABOUT CORE ASSETS



- **Characteristics of core assets**
 - Provide potential access to wide variety of markets
 - Make a substantial contribution to customer benefits
 - Are difficult for competitors to imitate
- **In running your business you enhance these core assets and develop new ones over time.**
 - Core competencies are enhanced as they are used.
 - These in turn open new horizons.
 - No-one can rely on the same core assets forever
 - They may be limited in time
 - *e.g. patent duration: 20 years*
 - *IBM and computing*

(Source: The Core Competence of the Corporation, Prahalad and Gamel, HBS 5-6/1990)

WHAT ARE CORE ASSETS?

ABOUT CORE ASSETS



- Core competencies yield **a definition of the company** and the markets it serves
 - Provide a logic for product and market diversification, make resource allocation priorities transparent to the organization
 - Technologists, engineers, marketers have a shared understanding of goals
- Ideally a company creates **a sustainable competitive advantage** based on its core competencies
- Few companies will build world leadership in more than five or six core competencies
- When it comes to core competencies, it is difficult to get off the train, walk to the next station, and then re-board.
- Based on core competencies you develop a commercial offering and a plan for a venture

(Source: The Core Competence of the Corporation, Prahalad and Gamel, HBS 5-6/1990)

WHAT ARE CORE ASSETS?

CLASSIFICATION



- **Physical** (e.g. natural resources, equipment, money)



- **Intellectual** (e.g. creative talent, patents, copyrights, trade marks, expertise, experience)



- **Organizational** (e.g. low cost retail, one-day package delivery, marketing, ability to attract talents, innovation and product development).



- **Market** (e.g. market share, brand name, distribution channel)



- **Resources & capabilities** (e.g. tradable knowledge; often tacit knowledge)

CORE ASSETS EXCLUSIVITY

ABOUT
EXCLUSIVITY



- As a rule: **the more unique the more valuable**
 - Of course it all depends on how important the subject of your exclusivity is
- Exclusivity is a **sliding scale**
 - Thé patent on thé invention
 - *Xerox*
 - **Brand** names
 - *Pablo Picasso, Coca-Cola, Google*
 - **Market leadership** is by definition quite exclusive
 - *Microsoft Windows/Office: broad markets*
 - *Barco screens: niche markets*
 - **Oligopolies**
 - *3 gaming Console Manufacturers*
 - *Oil and gas, pharma giants*
 - The opposite of exclusivity: large number of quasi identical suppliers
 - *Pitta Bars...*

BRAND NAME

Brand values in Billions of \$

Google \$167.7B

Apple \$205.5B

Amazon \$97B

Microsoft \$125.3B

Facebook \$88.9B

Coca-Cola \$59.2B

Walmart \$26.3B

IBM \$31.5B

Verizon \$31.7B

AT&T \$41.3B

Mercedes-Benz \$33.2B

Toyota \$44.6B

BMW \$29.8B

Honda \$25.8B

Hyundai \$8.1B

Chevrolet \$10.7B

Ford \$13B

Wells Fargo \$14B

American Express \$26B

MasterCard \$14B

Visa \$26.9B

JPMorgan \$12.4B

Citi \$11.4B

Allianz \$8.2B

HSBC \$12.8B

Bank of America \$11.6B

Chase \$11.7B

Goldman Sachs \$9B

Santander \$9.2B

Chanel \$9B

Rolex \$9.1B

Hermès \$18.1B

Cartier \$10.7B

PwC \$10.4B

Accenture \$16.6B

Deloitte \$12.4B

Red Bull \$9.9B

Starbucks \$17B

KFC \$8.5B

McDonald's \$43.8B

Pepsi \$18.8B

Nescafé \$17.9B

Heineken \$8.7B

Corona Extra \$10.1B

Unilever \$8.6B

Adidas \$11.2B

Marlboro \$28.5B

Nike \$36.8B

Budweiser \$27.2B

Sony \$11.3B

HP \$12.5B

Paycom \$9.1B

Huawei \$8B

Dell \$8.2B

SAP \$28.7B

Adobe \$10.5B

Alibaba \$10.5B

Intel \$38.8B

Netflix \$15.5B

Cisco \$34.5B

Oracle \$32.2B

FedEx \$8.2B

UPS \$12.6B

Walt Disney \$52.2B

LEGO \$8.1B

ESPN \$13.1B

FOX \$12.2B

CVS \$13.7B

ZARA \$13.5B

Costco \$8.8B

Love's \$9.3B

Nestlé \$12.6B

Danone \$9.2B

Nivea \$8.1B

Philips \$8.1B

Siemens \$13.8B

BASF \$8B

CAT \$8.3B

John Deere \$8B

Pampers \$10.6B

Kellogg's \$8B

Gillette \$16.6B

L'Oréal \$18.5B

Lancôme \$8.5B

Frito Lay \$14.7B

Colgate \$10.3B

Walmart \$26.3B

IKEA \$15.3B

H&M \$11.5B

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howmuch net



CORE ASSETS EXCLUSIVITY

SOME PERSPECTIVES



- In certain **technology** domains **unique IP is a requirement** (ex. pharma), in nearly all it is of substantial value
- Exclusivity/leadership can be **regional**
 - Walmart: low cost retail US market,
 - Vs. Colruyt: low cost retail Belgian market
- Is the segment in which you claim leadership **relevant**?
 - 'Market leader in PDA's' (without GSM functionality)
- Core assets do not need to be exclusive, the **combination** of 'not so special assets' can be valuable
 - Vietnamese boat refugee landed in Belgium + knowledge of French + ex-restaurant owner -> Vietnamese restaurant in Brussels

CORE ASSETS EXCLUSIVITY

- Assessing the uniqueness of your core assets...

RED OCEAN VS BLUE OCEAN

Red ocean

- Compete with the existing
- Beat competition
- Exploit existing demand
- Make value/cost trade-off
- Differentiation or low cost



Blue ocean

- Create uncontested markets to serve
- Make competition irrelevant
- Create and capture new demand
- Break value/cost trade-off
- Differentiation and low cost



(Source: Kim & Mauborgne, 2015)

IS EXCLUSIVITY
ENOUGH?



- **Relevance**

- Not enough to have core assets...
- ... Someone must want them (or the products you derive from them)

- **Feasibility**

- ... And you can make money delivering them
- ... And there are no showstoppers: manufacturing, for use of product

- Finding the **right use** of your assets in the right market can be a creative process

- Seeing the opportunity

CORE ASSET STRATEGIES

Type	Cost	Time	Limits	Value in negotiation
Intellectual Property	\$\$\$\$ + enforce	20 year	<ul style="list-style-type: none"> - time limit - freedom to operate - how watertight? 	<ul style="list-style-type: none"> - sign of real technology - signal threat of possible litigation - strength varies by sector
Secrecy, complexity	\$	indefinite	<ul style="list-style-type: none"> - once the secret is out... - requires effective organization 	hard to bargain if your asset is secret (unless you can show the results)
Speed	\$\$	short	need to repeatedly innovate	hard to bargain when speed is of essence
Branding, reputation	\$ - \$\$\$	definite	relaunch from time to time, creativity required	favorable position when you have a strong brand

CORE ASSET STRATEGIES

IP STRATEGY EXAMPLE IBM



- The last 17 years IBM has been granted more U.S. patents than any other applicant, an unprecedented **4,914 in 2009**.
- More than the number of patents granted last year to Microsoft, Hewlett-Packard, Oracle, Apple, Accenture, and Google **combined**.
- **IBM's worldwide portfolio** now covers more than **40,000 inventions**, from microprocessors for video games to the erasable read-write CD.
- spent \$5.8 billion on R&D last year, or 6% of its total revenue.
- IBM's patents produce considerable income
 - Fees from licensing and custom-developing IP for other companies: \$1.1 billion in 2009
 - Their patent department is a profit center
- But: IBM's U.S. patents over the past five years ranks **only eighth in value**.



MOST PATENT GRANTS*

1	IBM
2	Samsung
3	Microsoft
4	Canon
5	Panasonic
6	Toshiba
7	Sony
8	Intel
9	Seiko Epson
10	Hewlett-Packard

MOST VALUABLE PORTFOLIOS**

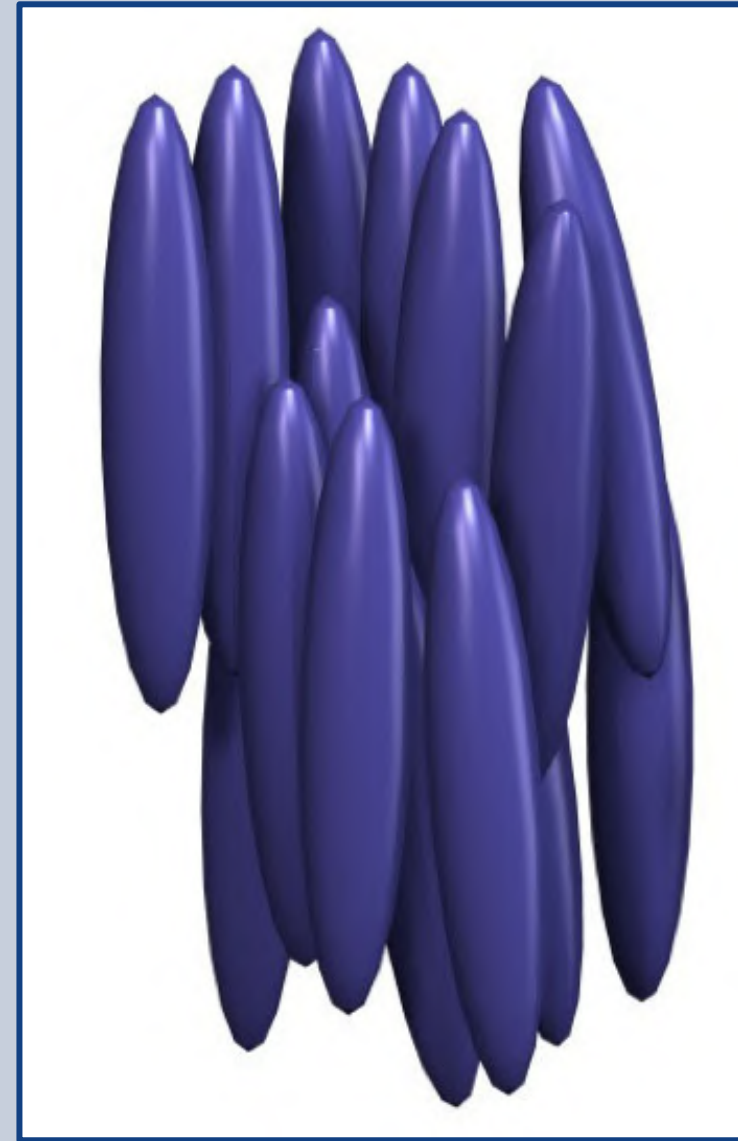
1	Microsoft
2	Samsung
3	Canon
4	Hewlett-Packard
5	Intel
6	Hitachi
7	Ricoh
8	IBM
9	Panasonic
10	Seiko Epson

CORE ASSET STRATEGIES

IP STRATEGY EXAMPLE MERCK AND LIQUID CRYSTAL (DISPLAYS)



- **Merck and Liquid Crystal (Displays)**
- Used in displays for LCD televisions, notebooks and PC monitors, mobile phones, clocks and watches, measuring instruments, digital cameras, camcorders, navigation systems ...
- **‘More than 2,500 patents for liquid crystals, their mixtures and display applications.’**
- **69% market share in Liquid Crystal** in 2007, 60% in 2017
- **2007: Liquid Crystal business comprised 13% of revenue and 50% of operating profits for Merck**
- HQ in Germany, but main LC business based in East Asia.
- ‘More than 100 years of liquid crystal production at Merck’
- Quantity of LCs used in devices...
 - The display of a mobile phone contains about 5 mg of LC, a notebook. 0.3 to 0.4 g and a 32” LCD TVs panel 2g
 - The **annual world market production of LCs is about 40 tonnes**
 - In case of a 32” HD panel, the liquid crystal represents about **6% of total material cost**



CORE ASSET STRATEGIES

IP STRATEGY EXAMPLE PFIZER



- Pfizer relies on a single set of patents covering cholesterol drug Lipitor for a fourth of its total sales, an estimated \$11 billion last year.
- Qualcomm collects almost all its revenue—\$10.4 billion in 2009—from selling licenses for and making the chips containing its patented 3G mobile-phone technology, known as CDMA.
- Horacio Gutiérrez, chief intellectual property officer (at a/o Microsoft), says patents are treated not as a profit center but "as a currency that you use to trade to another company" for its patents. Volume is an important gauge of a company's innovation, he adds, but "only if they are high-quality patents."



CORE ASSET STRATEGIES

SECREC STRATEGY EXAMPLE



- Dr. John S. Pemberton invented Coca-Cola in 1886. Since then, the formula has been kept shared only with a **small group**.
- The secret formula of Coca-Cola is **is kept in a vault** in the United States.
- You can visit the Vault of the Secret Formula at the World of Coca-Cola in Atlanta.
- “The formula for making Coca-Cola is a trade secret. We have it for more than 130 years. Only The Coca-Cola Company knows how to make Coca-Cola. When you buy one of our drinks, **you can be sure you’re getting the same delicious and refreshing experience time and time again!**”
- It is rumored that only two Coca-Cola executives know the secret formula for Coke. To prevent losing the recipe, the two are strictly forbidden to take the same plane.

CORE ASSET STRATEGIES

SPEED STRATEGY EXAMPLE



- Adobe developed **2 file format standards**
 - Postscript: for printing = exchange between PC and printers
 - PDF: for file exchange between users, computer systems
- In both cases **Adobe published the specifications**
- Acrobat allowed plug-ins
- Consequences
 - Anybody could write Postscript/PDF applications
 - Nobody felt uneasy in adopting Postscript/PDF as standard file format
- Beat competition in **speed**, quality, marketing
- A whole **ecosystem** developed around Adobe.



Adobe



SPEED STRATEGY EXAMPLE



- THIS BOOK DESCRIBES the Adobe Portable Document Format (PDF), the native file format of the Adobe® Acrobat® family of products.
- This book provides a description of the PDF file format and **is intended primarily for application developers wishing to develop PDF generator applications** that create PDF files directly.
- It also contains enough information to **allow developers to write PDF consumer applications that read existing PDF files and interpret or modify their contents.**

PDF Reference

second edition

Adobe Portable Document Format
Version 1.3

Adobe Systems Incorporated



ADDISON-WESLEY

Boston • San Francisco • New York • Toronto • Montreal
London • Munich • Paris • Madrid
Capetown • Sydney • Tokyo • Singapore • Mexico City

Adobe's PDF Reference

CORE ASSET STRATEGIES

1. Disney characters and stories
2. Animatronics and Show Design
 - Disney has been the **pioneer in the field of automated show elements: animatronics, lighting, sound and music, and other show effects**, coordinated into a customer-pleasing package.
3. Storytelling, Story Creation and Themed Atmospheric Attractions:
 - This is an investment in the right people and having them learn ways to tell stories effectively
4. Efficient operation of theme parks:
 - They were the inventors of the efficiently-run modern theme park, reaching **entirely new levels of cleanliness, safety and productivity while giving a uniformly high-quality entertainment experience to very large numbers of people.**
 - A lot of this competency was gained through **trail-and-error over the past 45 years.** Knowing how to efficiently serve so many people so well may actually be more important to Disney's success than any other ability.

DISNEYLAND

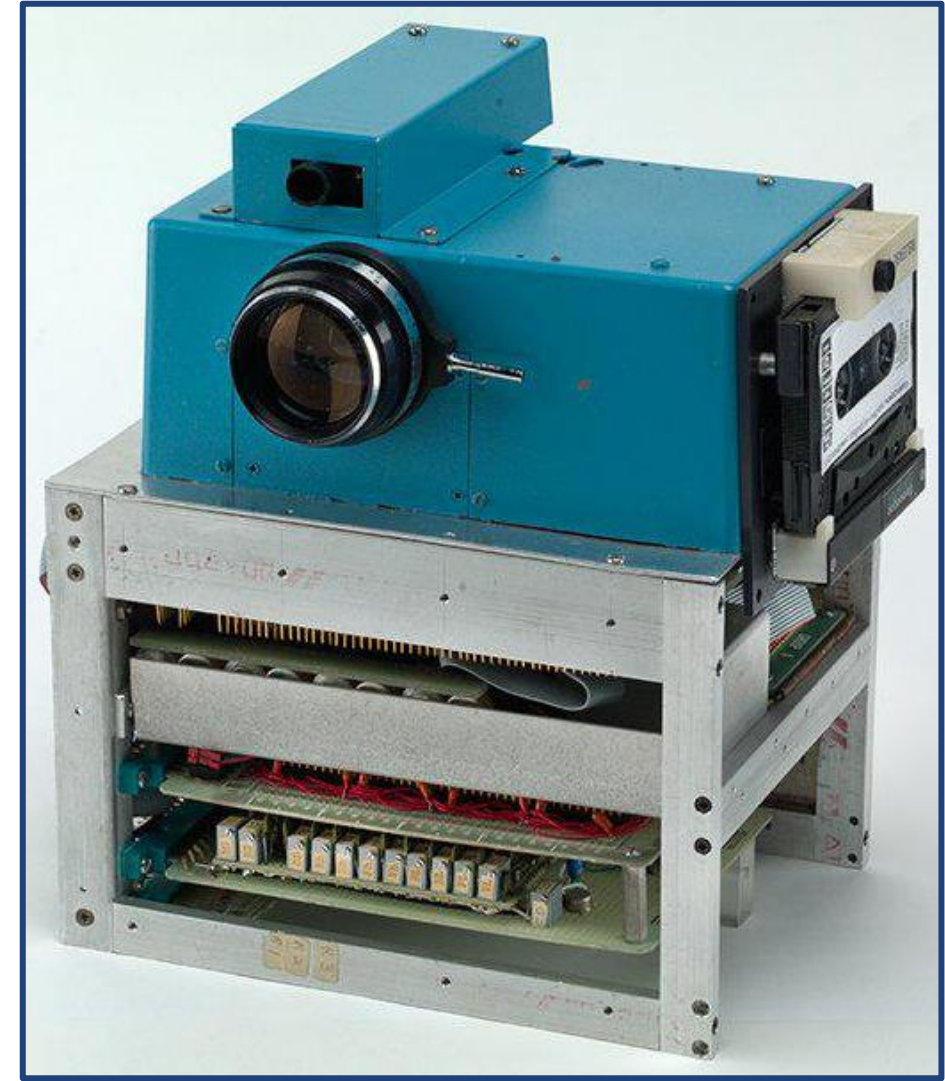


Disneyland

CORE ASSET STRATEGIES

HOW MARKET-READY ARE YOUR CORE ASSETS?

- For technology entrepreneurs ...
- The long road from the lab to a usable product is almost systematically underestimated
- A lab demonstrator is NOT a product
 - Functioning in all circumstances
 - Manufacturable
 - No fatal flaws
 - Compliance to regulations
 - ...
 - + acceptance, financial viability...
- Be very very sober in analyzing what remains to be done
 - And the time it will take
 - Engineers always think it's going to be easy...
- Validation is key!
 - It works
 - It works in real life circumstances
 - It has been manufactured in x units
 - It is being used by end users

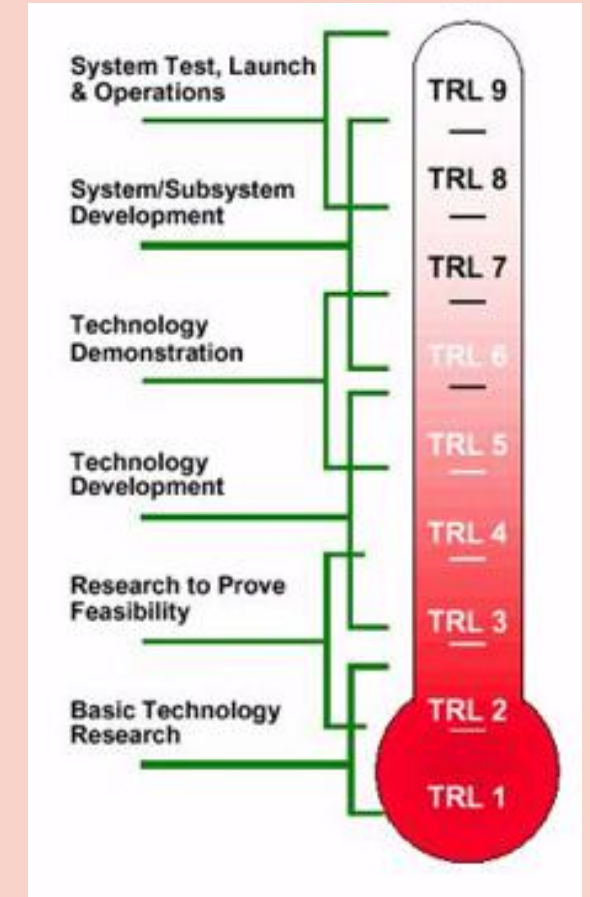


FINALIZATION STAGE OF CORE ASSETS

TECHNOLOGY READINESS LEVELS

- Method of estimating technology maturity
- Used by a wide variety of organizations, e.g. NASA, DoD, EU, ESA...
- Definitions of European Commission

TRL	Description
1	Basic principles observed
2	Technology concept formulated
3	Experimental proof of concept
4	Technology validated in lab
5	Technology validated in environment
6	Technology demonstrated in environment
7	System prototype in environment
8	System complete and qualified
9	Proven system in operational environment



NASA example

FREEDOM TO OPERATE

DO YOU HAVE
FREEDOM TO
OPERATE?



- Freedom to operate (FTO) means you have the freedom to test, market, or sell a product or service in a specific area or application domain
- The phrase is often used when determining if a specific action can take place without infringing on the intellectual property rights of another.
- Tactical question, but potential showstopper
 - Especially in technology & life sciences
- Are others blocking your entry into the market?
 - Generally patents you will infringe when you do your thing
- Can also be prosaically linked to employment contracts
 - Non-compete clauses
- See also IP & TT session

CORE ASSET EXAMPLES

CANON



- Canon core assets 1980's
 - Fine optics
 - Precision manufacturing
 - Microelectronics
- Applied them to series of markets
 - Copiers, printers, semiconductor manufacturing equipment, camera's
 - Passed Xerox in worldwide market share in copiers with fraction of R&D budget
- Share value 1980-1988 +264%
- Step to digital photography: develop new core assets
 - Imaging sensor: CMOS sensor, DIGIC image processing chip

Core Competencies at Canon

Every Canon product is the result of at least one core competency.

	Precision Mechanics	Fine Optics	Micro-electronics
Basic camera	■	□	
Compact fashion camera	■	□	
Electronic camera	■	□	
EOS autofocus camera	■	□	■
Video still camera	■	□	■
Laser beam printer	■	□	■
Color video printer	■		■
Bubble jet printer	■		■
Basic fax	■		■
Laser fax	■		■
Calculator			■
Plain paper copier	■	□	■
Battery PPC	■	□	■
Color copier	■	□	■
Laser copier	■	□	■
Color laser copier	■	□	■
NAVI	■	□	■
Still video system	■	□	■
Laser imager	■	□	■
Cell analyzer	■	□	■
Mask aligners	■		■
Stepper aligners	■		■
Excimer laser aligners	■	□	■

“

What are the core assets of
Google? How did they
change over time?

”

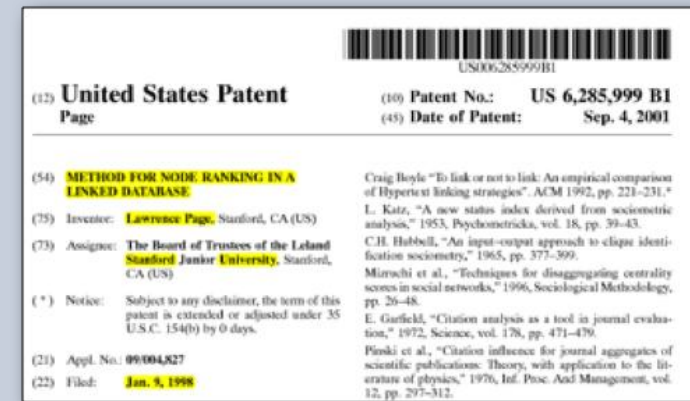


CORE ASSET EXAMPLES

GOOGLE



1. First core asset: a (much) better search algorithm
 - Patent owned Stanford University, shares in Google sold for \$336 million in 2005
 - Resulted in rapid massive adoption of Google search
2. Then: the underlying IT infrastructure
 - Own server hardware, operating system
 - Making it possible to upscale very fast
 - And to roll-out YouTube, Gmail, Google Earth...
 - Cost savings: up to three time the computing performance per dollar of other contenders
3. Then: credibility
 - See Google's philosophy 'Ten things we know to be true'
 - 'You can make money without doing evil'
 - We trust the Google search results
 - We like an advertising-free homepage
4. Then: a profitable business model
 - Context-sensitive textual ads next to search results sold via auction
 - Re-use of ads on other websites
 - Network effects (where?)
5. Then: organizational capabilities
 - To attract the brightest
 - To innovate



CORE ASSET EXAMPLES

EXXONMOBIL

ExxonMobil Corporation

Chemical



Upstream



Exploration

Development

Production

Downstream



Refining &
supply

Fuels
marketing

Lubricants &
specialties

Exceed
Enable

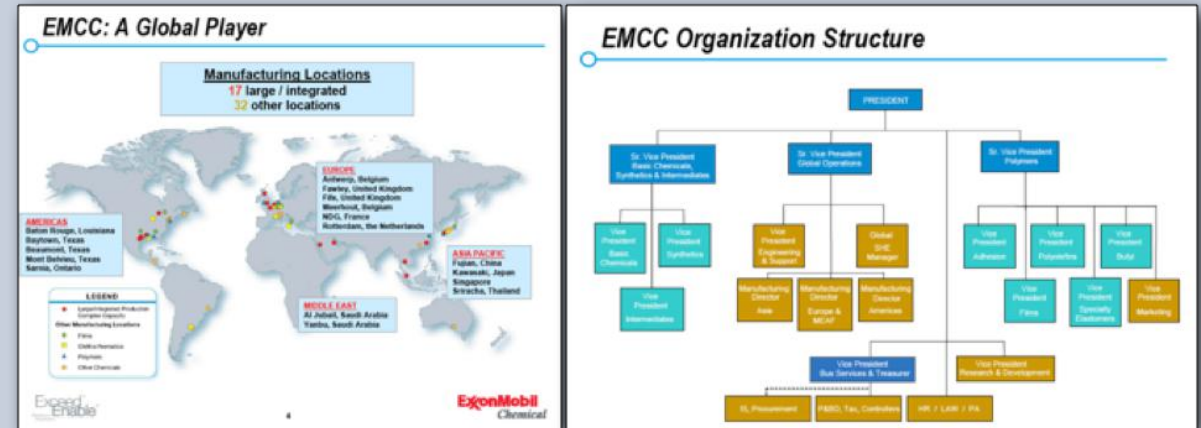
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ExxonMobil
Chemical

CORE ASSET EXAMPLES

EXXONMOBIL

- The world largest petroleum fields
- The expertise and equipment to exploit these fields and move the oil to users
- the refineries to process petroleum into a wide range of products
- the sales, marketing and distribution (gas stations) capabilities to sell all these products



CORE ASSET EXAMPLES

- What are Peter's core assets?
 - Programming skills
 - Business management experience
 - Industry experience in software for prepress systems
 - *Understanding of needs, technology, ecosystem*
- How are they translated into a product/market offering?
 - A disruption (= an opportunity) has been spotted: the prepress market is moving towards new file standards
 - The Mission: develop Postscript (and later PDF) tools for prepress professionals

ENFOCUS



CORE ASSET EXAMPLES

FRITUUR
GERARD EN
JANINE



- Location: the sole friterie in Schepdaal
- Good cook
- Active in social life of Schepdaal



CORE ASSET EXAMPLES

LESSONS
LEARNED FROM
XEROX & IBM



xerox 

IBM



See complementary reading

ENTREPRENEURIAL
STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

Perspectives on entrepreneurial strategy

PROBLEM /SOLUTION FIT

KEY
DIMENSIONS
(FOR DUMMIES)

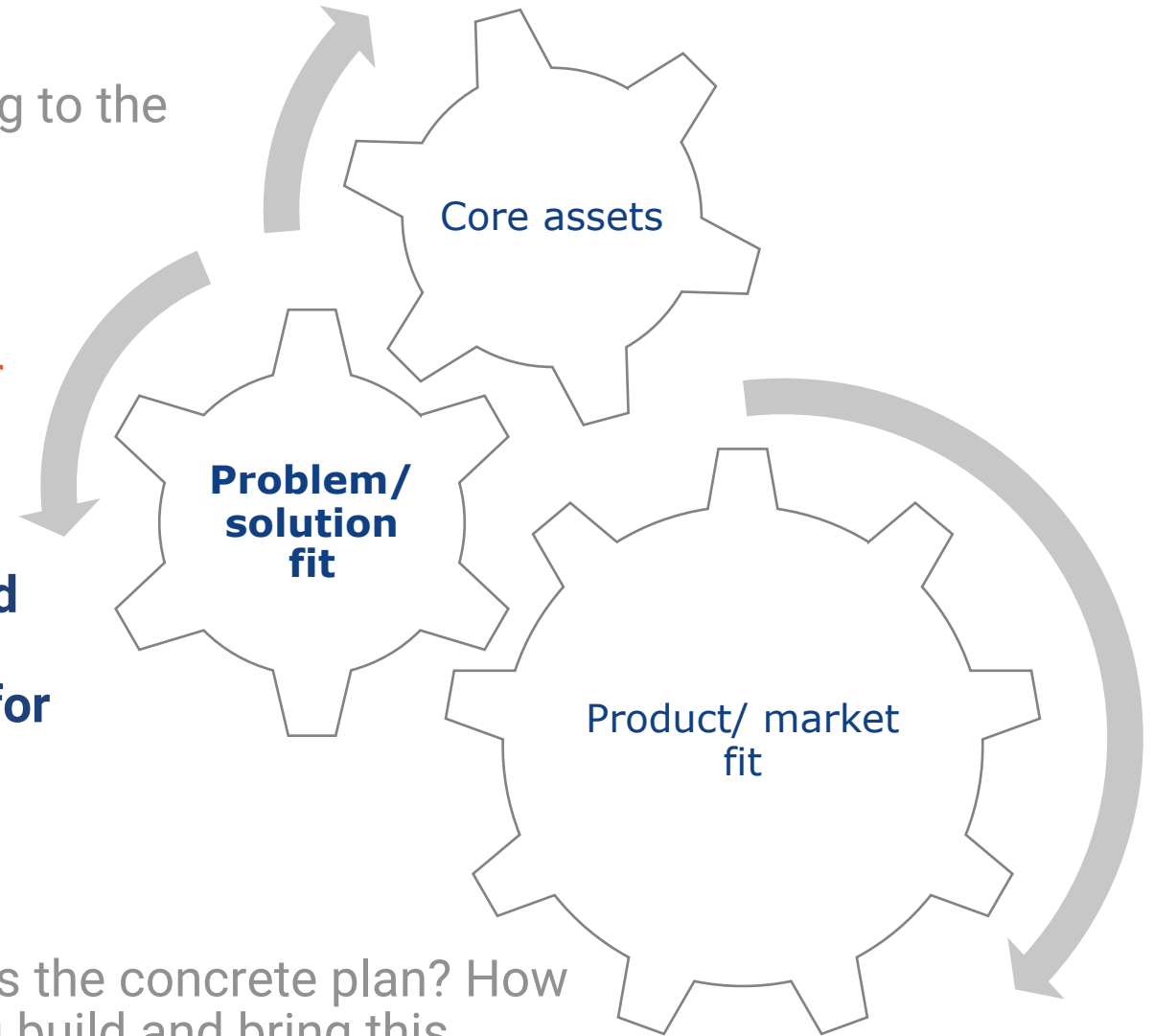


- What do you bring to the table?

You build upon your core assets to create solutions for problems.

- What offering do you build based on this, what is the added value of this offer for your customers?

- What is the concrete plan? How do you build and bring this offering to the market



“ Problem / solution fit is the confirmation that the problem is real and the solution is right, as validated by potential customers. It’s about generating value. ”



PROBLEM /SOLUTION FIT

OPTRIMA:
PLENTY OF
PROBLEM
/SOLUTIONS...

■ Television

- DepthSense™ and OptriCam™ enables natural **interface to TVs based on simple gestures**, allowing new and intuitive ways of interacting with your media-centre. A simple hand gesture will change the TV channel, turn up the volume, surf the Internet or flip through the photo or music library.

■ Gaming

- **You are the controller**

■ Automobile

- Optrima NV has licensed its DepthSense™ 3D CMOS Sensor technology to **Melexis** NV for adaption of the technology to the automotive market.

■ Health-Lifestyle

- New applications that can help elderly people or less valid patients home, in hospitals or in care centers benefit from “gaming alike **rehabilitation and revalidation** programs”.

■ Automation

- Optrima's DepthSense™ and OptriCam™ systems provide reliable 3D data for autonomously guided vehicles, with improved obstacle identification and avoidance, **service robots in industrial** and in assembly, quality control monitoring, material handling and automation.

■ Security

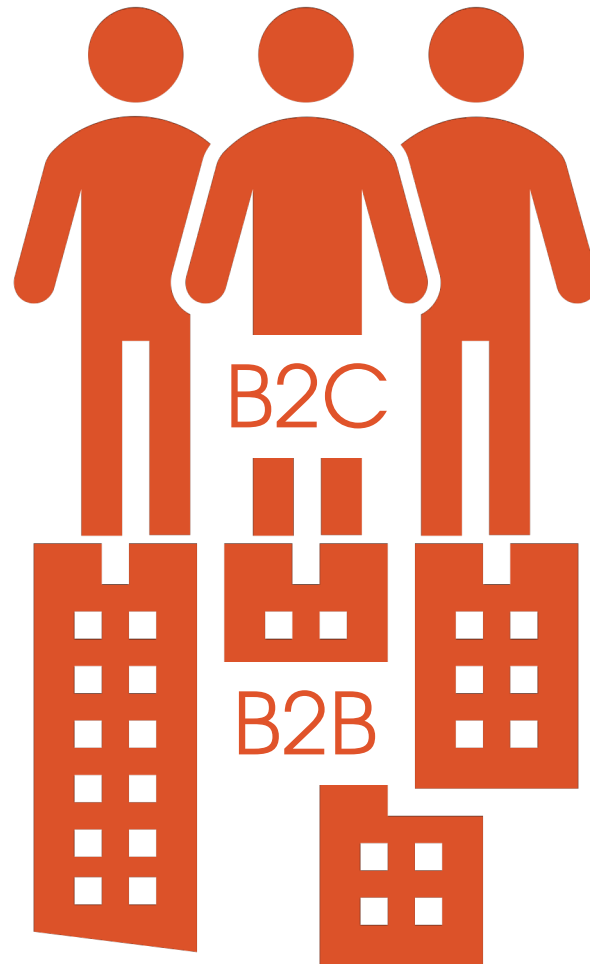
- By using the OptriCam™ 3D Time-of-Flight camera a reliable set of depth data becomes available. This increases the robustness and flexibility of many **surveillance, inspection, and logistics systems**: camera based factory automation, person-counting applications at airports, elevator and door/gate security detection systems.

ENTREPRENEURIAL STRATEGY


KEY DIMENSIONS AND QUESTIONS



Core assets	Problem / Solution fit	Product / Market fit
What exactly are your core assets?	Who is your customer? What does he/she do today?	What will be your place in the supply chain/ecosystem?
Are your core assets exclusive?	What is his/her pain?	Who will be your key partners?
What strategy fits your core assets?	What solution do you offer?	Can you make money with this product / market combination?
In what stage of finalization are they? What remains to be done?	Why are you better than alternatives?	What resources do you need to start, grow?
Do you have freedom to operate?	Are there any show-stoppers?	Is it an attractive market?



WHO IS YOUR CUSTOMER?

- 
- Especially in **B2B** clear, rational reasons determine if products are bought
 - **B2C** adds other arguments to the mix, but rational reasons remain applicable
 - The customers you target (or someone else) will need to spend money on your product
 - And not on the endless range of alternatives
 - Will that happen?
 - It is essential that you know clearly, explicitly, why a customer should buy; you must therefore fully understand the logic of the customer
 - -> You **must** consider things from the perspective of your customer
 - **The focus is on your customer**, his needs, how your solution complies to these needs, **and competitive offerings**
 - You **build on your core assets** to create 'solutions' for 'products'

WHO IS YOUR CUSTOMER?

WHO IS
EXXONMOBIL'S
MOST
IMPORTANT
CUSTOMER?



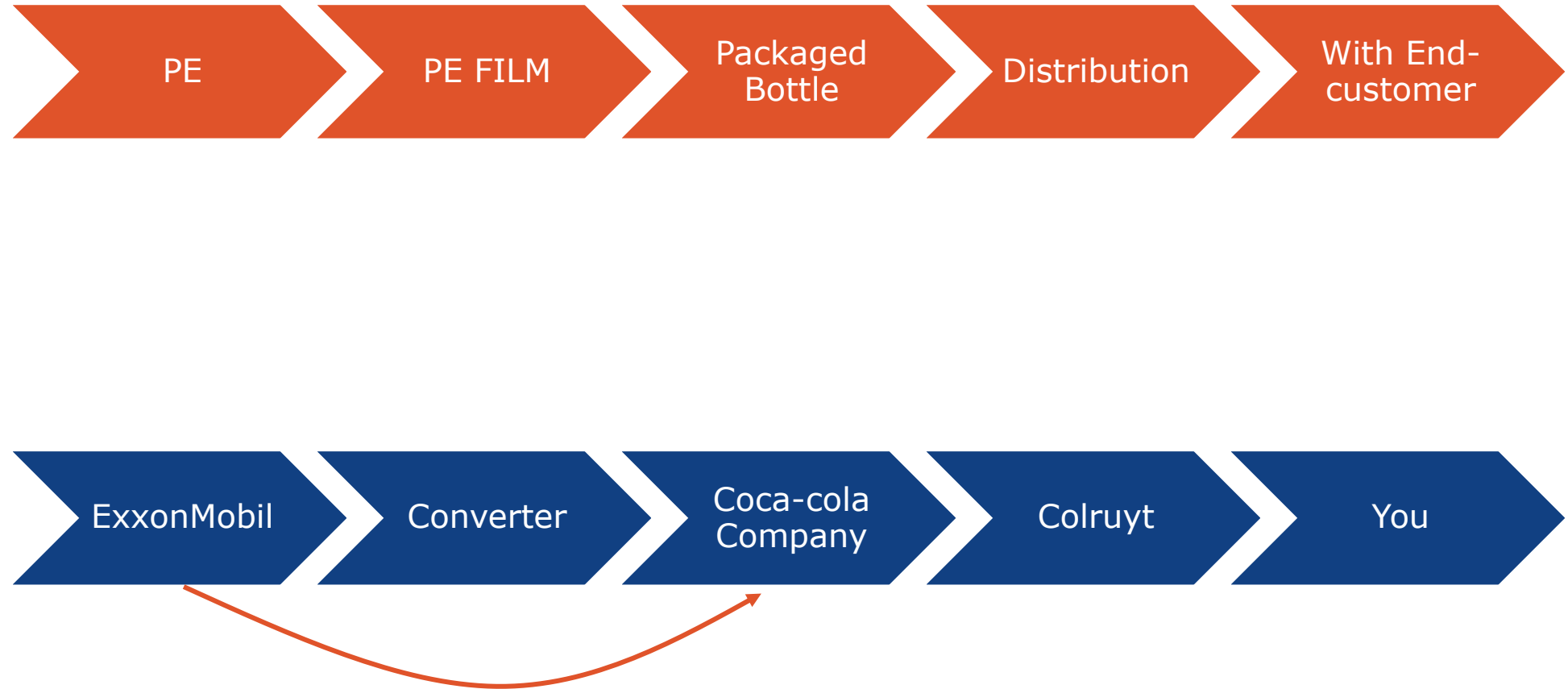
3 QUESTIONS TO IDENTIFY THE MOST IMPORTANT CUSTOMER



1. If there's a problem or issue with your offering in the final product, **who is responsible** for taking the action required to rectify the situation ?
2. Who stands to **lose the most financially** if there's a problem or issue with your offering ?
3. Who is the most likely to **recognize the value** provided by your offering ?

WHO IS YOUR CUSTOMER?

THE MOST IMPORTANT CUSTOMER



Who is ExxonMobil's most important customer?

WHO IS YOUR CUSTOMER?

THE MOST IMPORTANT CUSTOMER: EXERCISE



- Military vehicle armament case
- The **manufacturer**
 - produces the “best performing” fiber in the market... 4x better
 - But all products meet existing MIL specs.
- Discuss, in groups of 2 (with your neighbor), who is the MIC of Bekaert?
 - If there’s a problem or issue with your offering in the final product, **who is responsible** for taking the action required to rectify the situation ?
 - Who stands to **lose the most financially** if there’s a problem or issue with your offering ?
 - Who is the most likely to **recognize the value** provided by your offering ?

WHO IS YOUR CUSTOMER?

THE MOST IMPORTANT CUSTOMER: EXERCISE

Manufacturer of Fibers

e.g., Fibers used in Vehicle Armament

Fabricator

Component Manufacturer

Vehicle Manufacturer

Military

Soldier

BEKAERT's most important customer...

Most Important Customer in this value chain?

Solution:
The manufacturer meets with the US Military share...
"we have a fiber which is 4x better but costs more"

At that meeting, they propose to set up a **meeting with the military, the Fabricator and the Bekaert Value Innovation Team**

- ... the message
- ... we want you to use this fiber
- ... cost is a NON ISSUE
- ... protecting our men and women is THE ISSUE



WHAT IS HIS/HER PAIN?

ABOUT PERFORMANCE CRITERIA



- Our tool for understanding customer needs (and segments), and how your product/service meets those needs (compared to alternatives): **performance criteria**
- So it is about **understanding customer decision criteria, market segments, and alternatives to your product/service.**
- The key questions:
 - What criteria are determining in the purchase decision of your customers?
 - Does their importance vary over different types of customers, creating market segments?
 - How does your solution score on these performance criteria?
 - How do alternatives score?
- The key challenges
 - Identifying the relevant criteria
 - *And not skipping the ones you don't like*
 - *Denial is not an option*
 - Assessing different market segments
 - Assessing correctly how you and alternatives score
- Note on terminology: "customer requirements" is also commonly used.

“

Exercise: you order a pizza online. What are your performance criteria?

”



WHAT IS HIS/HER PAIN?

CANVASSING PERFORMANCE CRITERIA



1. Define who is your customer
 - List known or suspected market segments: customer groups with specific needs
2. List criteria known or suspected to weigh in the customer decision
 - Sources:
 - Expertise , informal information
 - Hunches, convictions
 - Market surveys, customer surveys
 - A strike of genius in the definition of the criteria can make the difference!
 - Market segments = different sets or criteria, weight of criteria
3. 'Calibrate' each criterion
 - What is the show stopper level?
 - When is the product 'good enough'?
4. Optionally: define the relative importance of each criterion
5. Perform market research
 - See part on marketing (later)

WHY ARE YOU BETTER?

COMPARING PERFORMANCE CRITERIA



- How do you (and your competitors) **really** score on the **performance criteria**
 - Denial is not an option
- Have you taken all dimensions along?
 - Criteria
 - Network effects, brand...
- Beware if you do not have a compelling competitive advantage
 - As a starter you often have a lot of competitive disadvantages to overcome

WHAT IS HIS/HER PAIN?

PERFORMANCE CRITERIA



- Palm gridpad
 - Too big and heavy
 - Too expensive
 - For use inside specialized markets
 - No PC connectivity
- Apple Newton
 - Heavy and cumbersome
 - Mediocre handwriting recognition

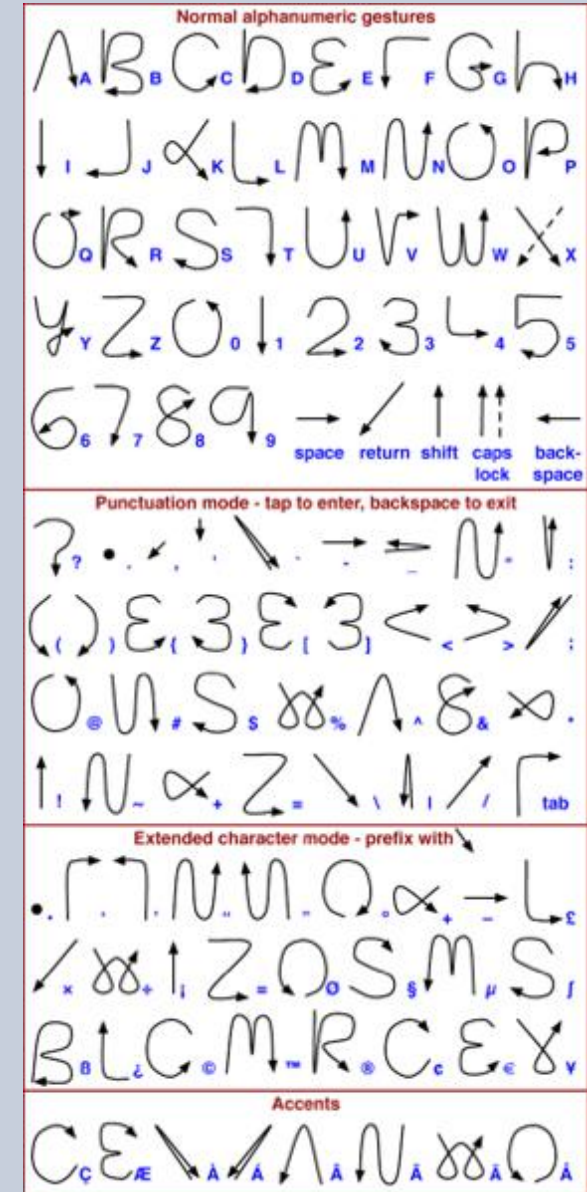
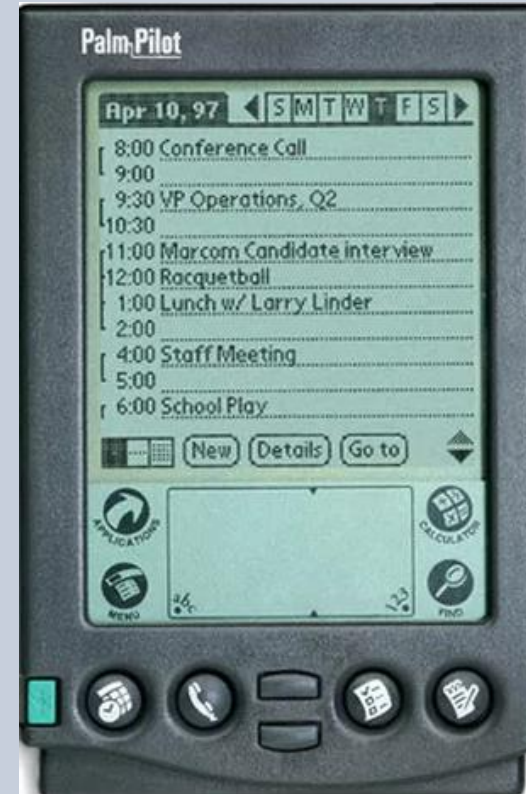


PALM PILOT...

- Clearly defined target group: mobile professionals
 - Not: general consumer, market niches such as transport & logistics
- Clear definition of added value
 - Electronic pocket agenda: agenda, address book, to do list, notes
 - NOT a computer-in-the pocket
- Performance criteria
 - Simplicity
 - Small size
 - Reasonable price
 - Attractive design
 - Connectivity
 - Reliable input (through easily learned character set)

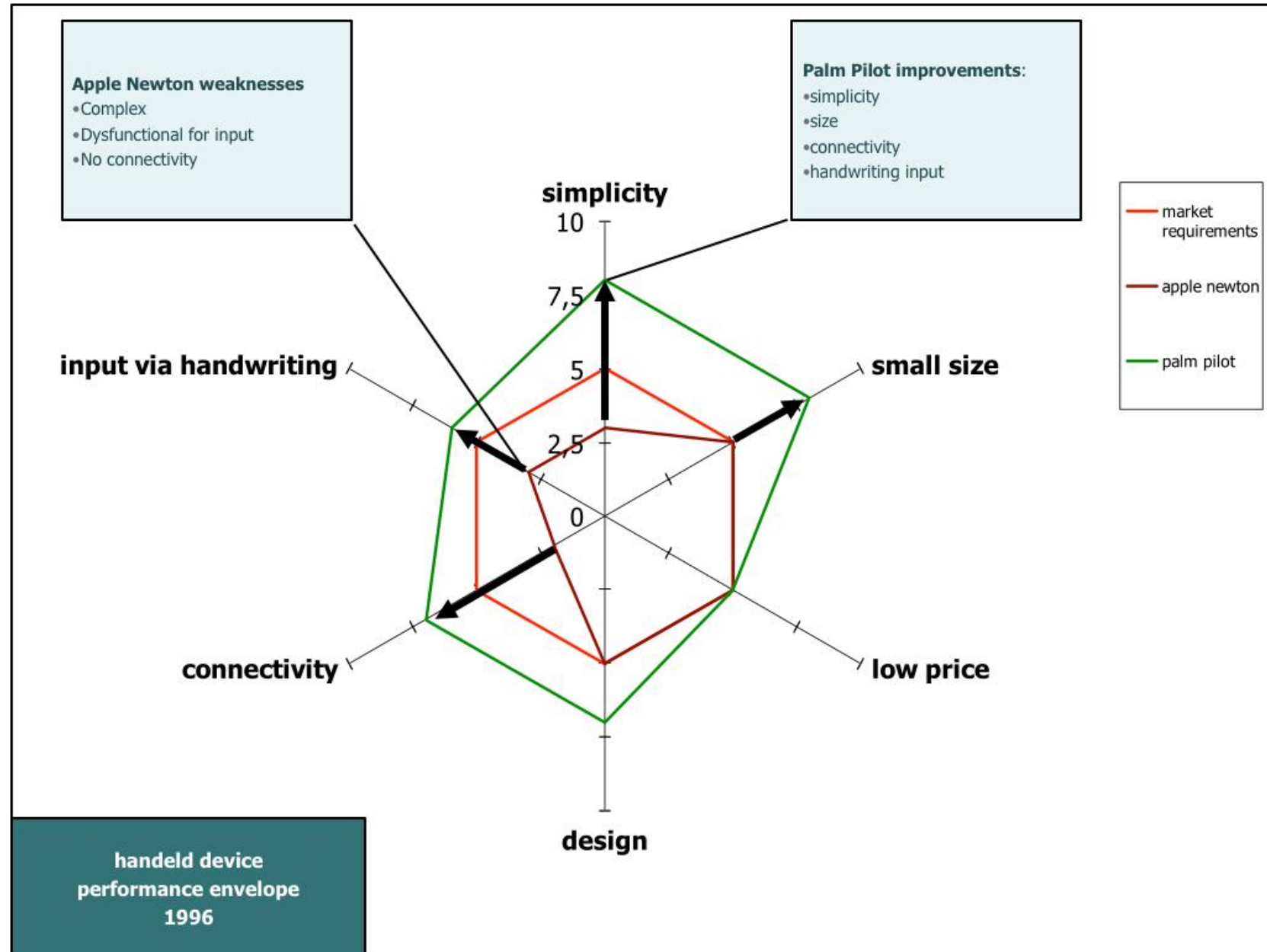
- 1996: huge success

WHAT IS HIS/HER PAIN?



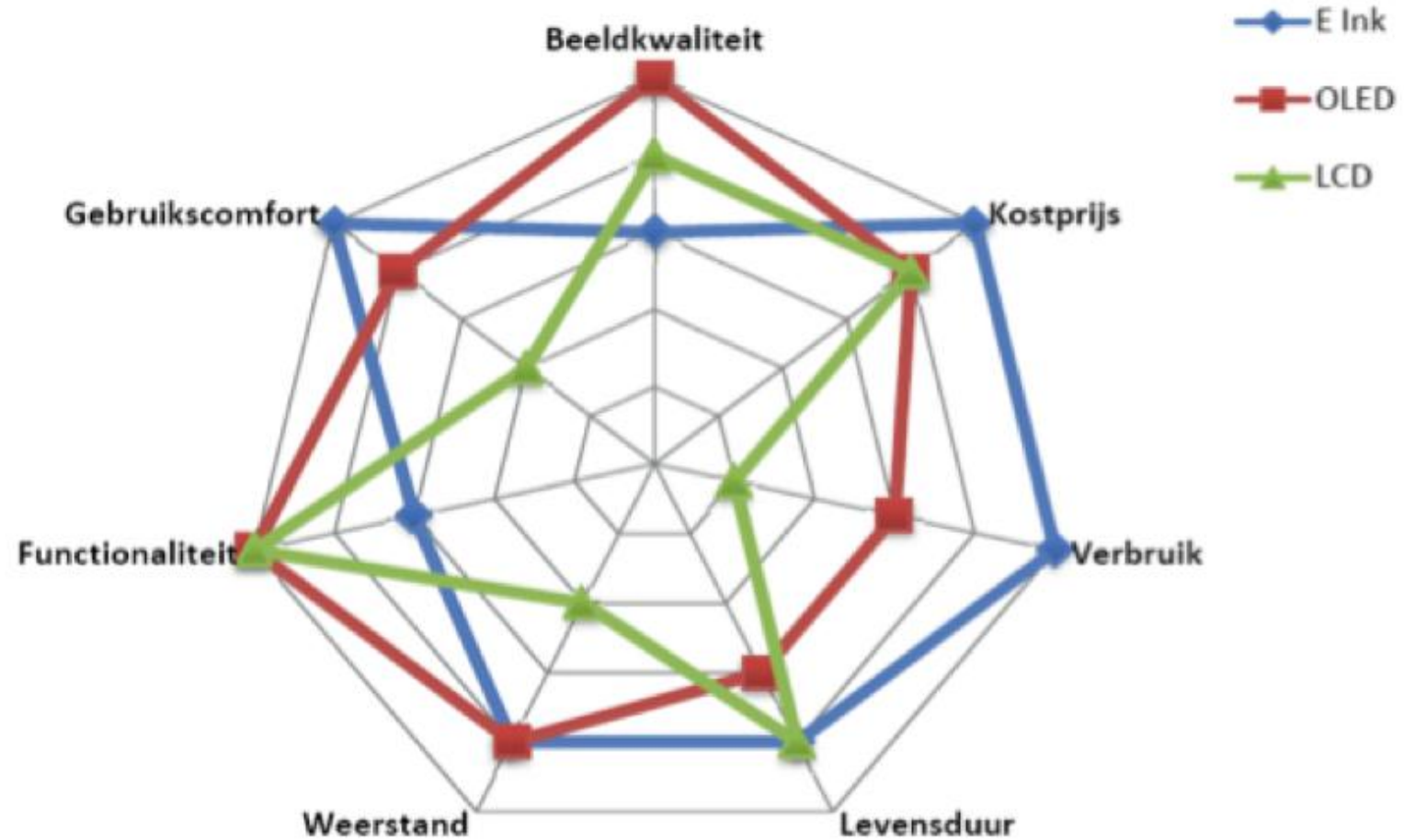
WHAT IS HIS/HER PAIN?

PERFORMANCE CRITERIA: PALM COMPUTERS



WHAT IS HIS/HER PAIN?

PERFORMANCE
CRITERIA:
DISPLAY
TECHNOLOGIES



Figuur 26: performance envelope: E Ink vs. OLED vs. LCD, toekomstige situatie

WHAT IS HIS/HER PAIN?

ANTIBODY PERFORMANCE CRITERIA

	Small Molecule	Conventional Antibody	Nanobody
High Affinity		•	•
High Selectivity		•	•
Low Toxicity		•	•
Cavity Binding	•		•
Stability	•		•
High Solubility and no Tendency to Aggregate	•		•
Tissue Penetration	•		•
Alternative Routes of Administration	•		•
Tailored in vivo half-life	•		•
Ease and Low Cost of Manufacturing	•		•
Bi-specific and Multivalent Formats			•
Speed of discovery			•

WHAT IS HIS/HER PAIN?

PERFORMANCE CRITERIA



- A formalized way to think about
 - Customer needs
 - Market segments
 - The way your offering/solution complies to their needs
 - Comparing your offering/solution to alternatives
- You must be able to indicate the key differentiators of your offering and why they matter
- If you can't, you don't have a viable offering!

SHOW-STOPPERS

ARE THERE ANY
SHOW-
STOPPERS?



- Watch out for **show-stoppers**
- Applies to all aspects: sometimes a criterion, or a minimum score, is a must
 - PDA's of 5 kilograms have no chance
- May only apply to certain segments

ARE THERE ANY
SHOW-
STOPPERS?

THE APPLE
NEWTON



WHAT SOLUTION DO YOU OFFER?

VALUE PROPOSITION



- **Value Propositions are business or marketing statements that summarize why a consumer should buy a product or use a service.**
- Business buyers are rational buyers. So help them in their decision making process.
- **Some characteristics**
 - The ideal value proposition is **concise**
 - **Appeals to the customer's strongest decision-making drivers.**
 - Are often are **fully quantified** analyses of the impact of switching to your product, financially and from perspective of features
 - Your claim should be **substantiated and documented**
- Companies pay a high price when customers lose sight of the company's value proposition.
- (Source: www.investopedia.com)

“ (Most) Managers who make purchase decisions want to do business with suppliers that fully grasp critical issues in their business and deliver a customer value proposition that’s simple yet powerfully captivating. ”



James C. Anderson

“ Suppliers can provide such a customer value proposition by making their offerings superior on the few elements that matter most to target customers, demonstrating and documenting the value of this superior performance, and communicating it in a way that conveys a sophisticated understanding of the customer’s business priorities. ”



James C. Anderson

WHAT SOLUTION DO YOU OFFER?

ABOUT VALUE
PROPOSITION:
SUBSTANTIATE &
DOCUMENT



- **Substantiate** your claim
 - **Rockwell Automation precisely calculated cost savings from reduced power usage** that customers would gain by purchasing **Rockwell's pump solution** instead of a comparable offering.
 - Rockwell **used industry-specific metrics** to communicate about functionality and performance— including kilowatt-hours spent, number of operating hours per year, and dollars per kilowatt-hour
- **Document** the delivered **value**
 - **Create written accounts of cost savings or added value that existing customers have actually captured** by using your offerings.
 - Chemical manufacturer **Akzo Nobel conducted a two-week pilot on a production reactor at a prospective customer's facility** to study the performance of its high-purity metal organics product relative to the next best alternative in producing compound semiconductor wafers.

Power Reduction Cost Savings
= [kW spent x number of operating
hours per year x \$ per kW hour x
number of years system solution in
operation] Competitor Solution
- [kW spent x number of operating
hours per year x \$ per kW hour x num-
ber of years system solution in opera-
tion] Rockwell Automation Solution

WHAT SOLUTION DO YOU OFFER?

VALUE PROPOSITION EXAMPLE



- Example: company that manufactured **resins used in exterior paints**.
 - By researching the needs of commercial painting contractors—a key customer segment—the company learned that **labor constituted the lion's share of contractors' costs**, while **paint made up just 15% of costs**.
 - Armed with this insight, the **resin maker emphasized that its product dried so fast that contractors could apply two coats in one day—substantially lowering labor costs**.
 - Customers snapped up the product—and happily shelled out a **40% price premium** for it.
- The resin manufacturer **deepened its understanding of key customers** in several ways.
 - It enrolled managers in courses on how painting contractors estimate jobs.
 - It conducted focus groups and field tests to study products' performance on crucial criteria.
 - It also asked customers to identify performance trade-offs they were willing to make and to indicate their willingness to pay for paints that delivered enhanced performance.
 - And it stayed current on customer needs by joining industry associations composed of key customer segments

WHAT SOLUTION DO YOU OFFER?

VALUE PROPOSITION: COLLIBRA



- The company's technology lets businesses set up policies for how certain data like Social Security numbers or emails can be used throughout the organization to prevent regulatory missteps.
- Additionally, Collibra's tools can link to data repositories stored in places like Amazon Web Services, Microsoft Azure, and Salesforce's software to manage sales data. Presumably, this makes it easier for people to find information that may be scattered in different databases.
- Van de Maele likens the service to how libraries archive books and give visitors tools like index cards to find books that they're looking for.

(source: <http://fortune.com/2019/01/29/google-collibra-data-investment/>)




WHAT SOLUTION DO YOU OFFER?

VALUE
PROPOSITION:
SONOCO



- Global **packaging supplier** headquartered in Hartsville, South Carolina.
- Although the redesigned packaging provided six favorable points of difference relative to the next best alternative, Sonoco chose to **emphasize one point of parity and two points of difference** in what it called its distinctive value proposition (DVP).
- The value proposition was that the redesigned packaging would
 - Deliver significantly greater manufacturing efficiency in the customer's fill lines, through **higher-speed closing**
 - *Allowing users to move from a seven-day, three-shift production schedule during peak times to a five-day, two-shift operation.*
 - Provide a **distinctive look** that consumers would find more appealing
 - All for the **same price** as the present packaging.
 - Sonoco chose to include a point of parity in its value proposition because, in this case, the customer would not even consider a packaging redesign if the price went up.



Business Aspects of Innovation in Materials

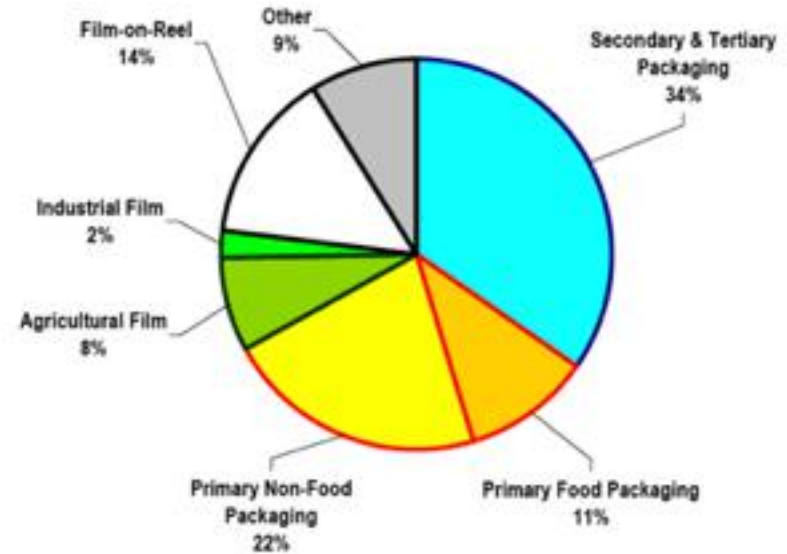
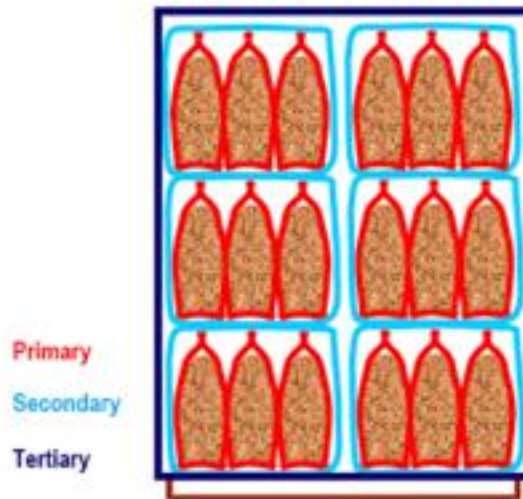
Metallocene Polyethylene (mPE) Developments at ExxonMobil Chemical

Exceed™
Enable™
Metallocene Polyethylene

ExxonMobil
Chemical

POLYETHYLENE

2009 European PE Consumption in Film



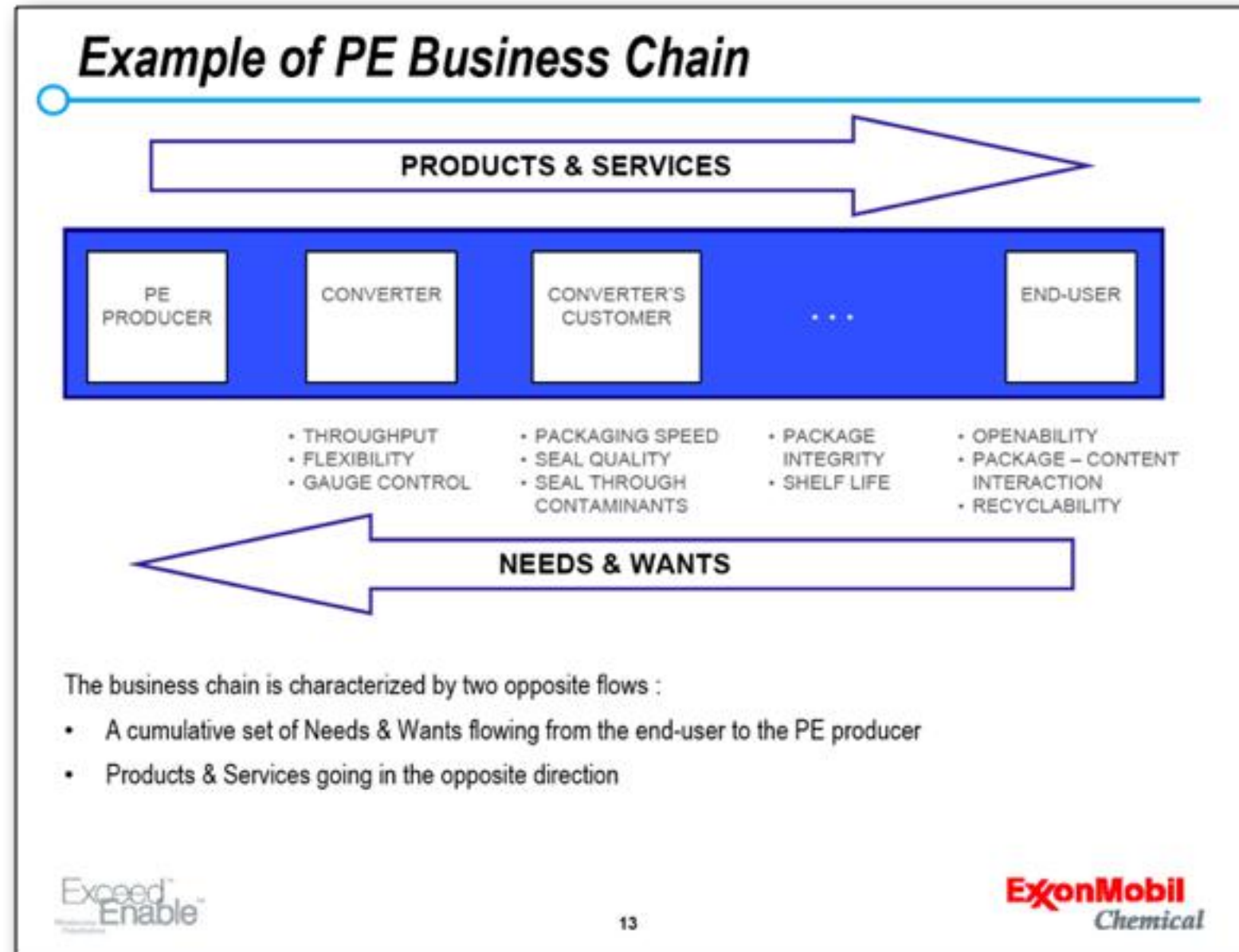
Major drivers for primary, secondary and tertiary packaging growth :

- Trade and logistics
- Consumer markets evolutions

Data from:
Applied Market Information

Exceed™
Enable™

UPSTREAM FLOW OF NEEDS AND WANTS...



UNDERSTANDING THE MARKET...

Packaging and Product Bundling Trends & Drivers

Consumer – Retail

- Point-of-purchase differentiation impacts ultimate buying decision
- Advertisement spending shifts from traditional media to point-of-purchase influencing
- Increased emphasis on environmental impact – more sustainable flexible film solutions



Distribution Channels

- In-store cost reductions and more efficient waste stream management
- Package simplifications (e.g. removal of cardboards)
- Improved stock rotation
- Rise in warehouse & club-store retailing, outdoor displays



Packaging Trends

- Packaging functionality expands
- Shelf appeal becomes an ever more important dimension of packaging value
- Accelerated growth in multi-pack merchandising
- Display packaging grows at the cost of bundling in developing markets
- Source reduction and move toward single-material packaging systems

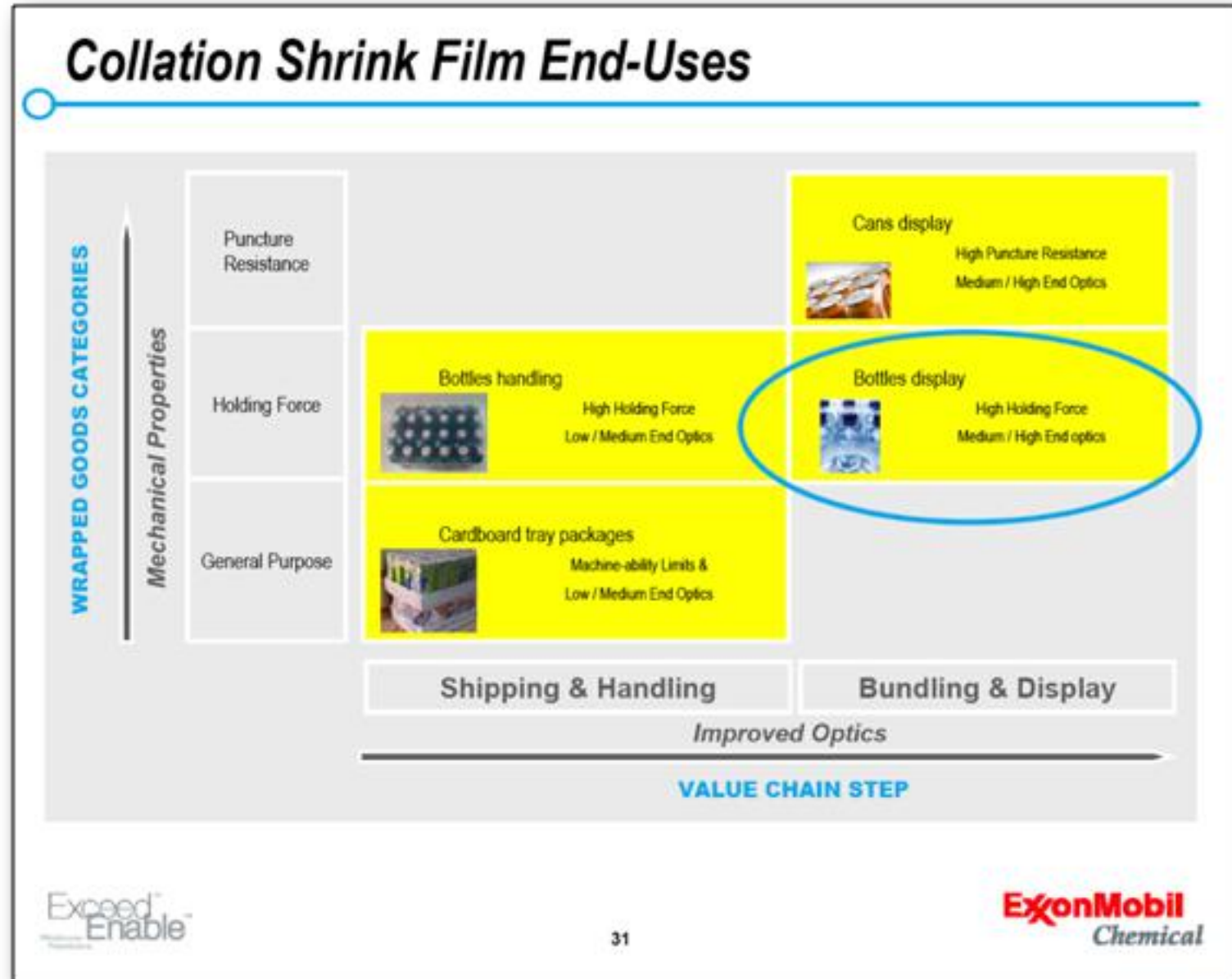


UNDERSTANDING THE MARKET...

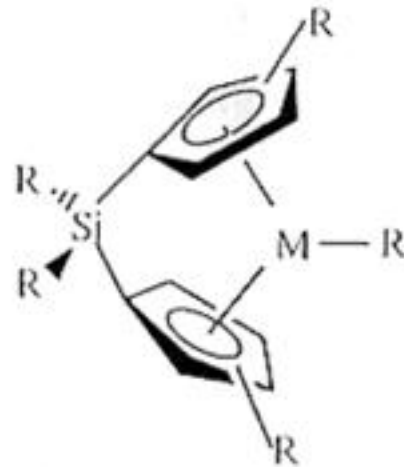
Collation Shrink Film Development Trends



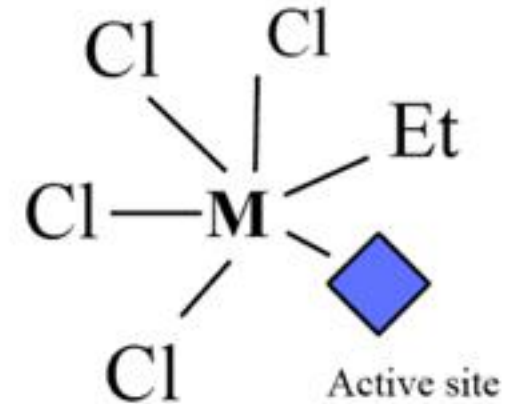
UNDERSTANDING THE MARKET...



Metallocene Catalysts vs. Ziegler Natta Catalysts



Metallocene



Ziegler Natta

- More selective, more active catalysts
- Polymer molecules are very similar
- Significantly improved product properties

SEGMENTING THE OFFERING...

mPE Value Proposition

Exceed™ mPE resin

- Superior film toughness and strength
- Outstanding film impact resistance
- Excellent optical properties
- Superior film sealing performance

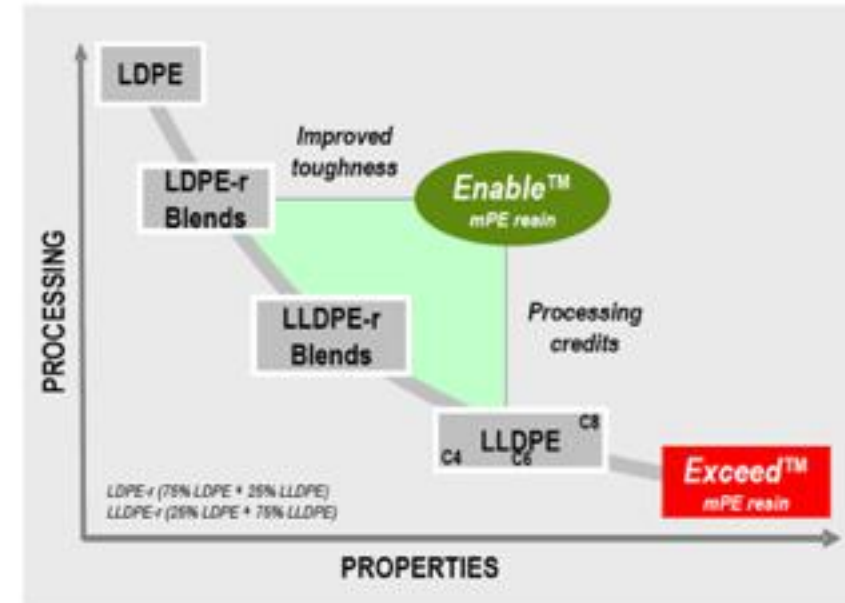
Enable™ mPE resin

Replacing LDPE resin-rich blends

- Equivalent processability
- Up to 25% downgauging
- LDPE shrink properties
- Excellent see-through clarity

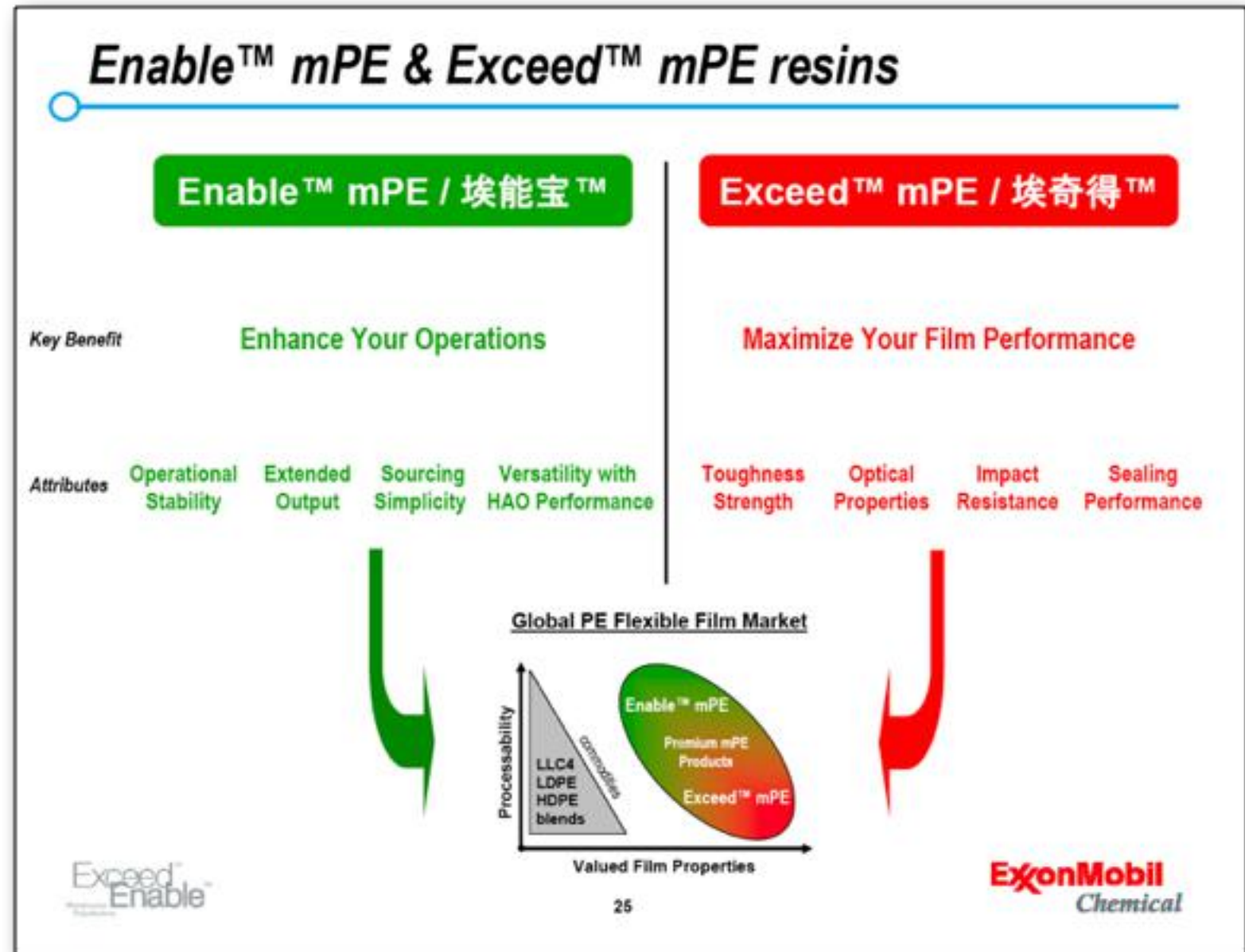
Replacing LLDPE resin-rich blends

- Business simplification
- Up to 20% improvement in output
- Excellent bubble stability
- LL-HAO performance benefits



Exceed and Enable mPE resins form a unique portfolio that facilitates business opportunities expansion across the value chain

SEGMENTING THE OFFERING...



VALUE PROPOSITION...



Exceed™ mPE resin – Value Proposition

“ Exceed™ mPE is the leading edge mPE that expands the possibilities for experts working in the most demanding film applications to meet, and often redefine, the film performance attributes demanded by the value chain globally “

Superior film toughness and strength balance translate into significant film downgauging

- Reduces costs (raw material, inventory, processing, delivery and disposal)
- Offers more sustainable solutions to brand owners and retailers through reduced packaging weight
- Less packaging lines shut-down (Stretch Hood)

Superior film impact resistance offers:

- Less application failure & after sales support from converters & packaging machine manufacturers (stretch hood)
- Improved package integrity
- Improved tamper resistance (beverages)

Superior film optical properties (gloss, haze & transparency) offer:

- Improved print quality
- Better packaged product appeal
- Improved consumer brand recognition leading to higher revenue (beverages)
- Improved bar code reading (appliances)

Superior film sealing performance offers:

- Increased packaging line speed at no cost (stretch hood)
- Delayed packaging line investment
- Improved integrity and shelf-life for packages relying on sealed layers (pouches, laminated bags, etc...)
- Less packaging lines shut-down (FFS)

Exceed™
Enable

26

ExxonMobil
Chemical

VALUE PROPOSITION...

Enable™ mPE resin – Value Proposition

“Enable™ mPE offers an unprecedented combination of film processing and HAO performance benefits in a single unique resin, leading to improved business operations and increase productivity “

Operational Stability: Have a broad operating window - on both LL and LD equipment - that withstands fluctuations in manufacturing conditions

- Ability to extrude at lower melt temperature promotes greater bubble stability; improved melt strength and greater shear thinning
- Stable, worry-free operations

Extended Output: Increase line capacity through faster processing

- Increased output (up to 20%) at no additional cost when replacing LL-rich blends – increased revenue
- Postpone future equipment investments
- Reduce or eliminate the use of polymer processing aids – lower cost operations

Sourcing Simplicity: Simplify your sourcing and operations with a single unique resin designed to replace blends

- Eliminate blending complexity and errors
- Reduced inventory costs by reducing the number of resins needing to be sourced
- Reduce or eliminate the need for sourcing LDPE

Versatility with HAO Performance: Meet the performance needs of several applications

- Meet the mechanical performance requirements of LL-rich structures
- Improve the toughness of LD-rich structures - 20% downgauging possible
- Extend the life of LD equipment - opportunity to enter new applications

Exceed™
Enable

PERFORMANCE CRITERIA...

Enable™ mPE resin Based Collation Shrink Film

Enable™ mPE resin core layer offers

- Unit cost and weight reduction
- Lower logistics costs
- Leading to more sustainable flexible film solutions

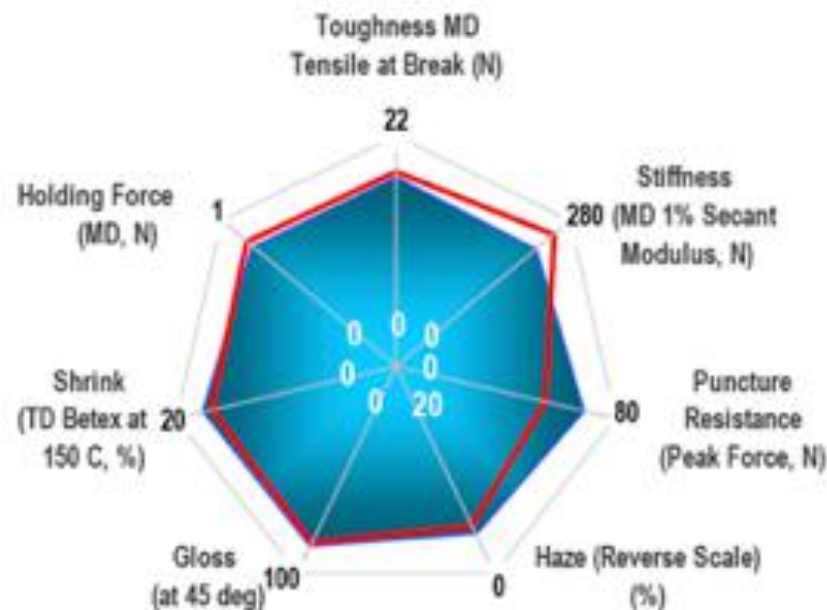
Exceed™ mPE resin skin layer offers

- Improved optical properties
- Improved puncture
- Outstanding sealing properties

At 25% thinner gauge ...

- Equivalent toughness, improved puncture
- Equivalent shrinkage and holding force
- Low haze
- Good cut-ability

Coex LDPE-based reference



Reference	Exceed™ - Enable™ mPE resin alternative
40 µm - Coex	30 µm - Coex
Skin layers: C4LLDPE rich blend with LDPE	Skin layers: Exceed™ mPE resin rich blend with LDPE
Core layer: LDPE rich blend with HDPE	Core layer : Enable™ mPE 35-05CH resin rich blend with LDPE and HDPE

Exceed™
Enable™

Data from tests performed by or on behalf of ExxonMobil

ENTREPRENEURIAL STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

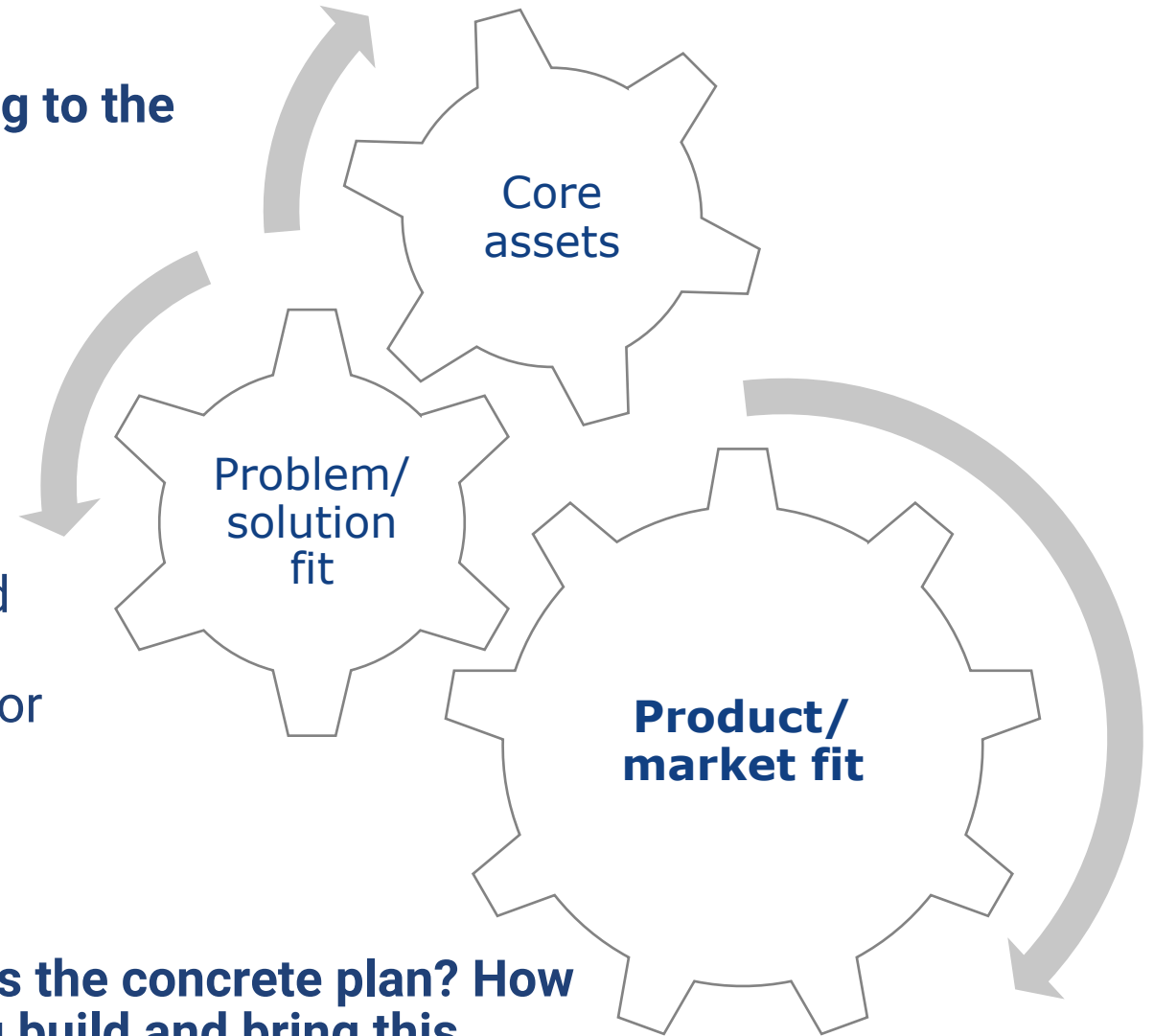
Perspectives on entrepreneurial strategy

PRODUCT /MARKET FIT

KEY
DIMENSIONS
(FOR DUMMIES)



- What do you bring to the table?
- What offering do you build based on this, what is the added value of this offer for your customers?
- What is the concrete plan? How do you build and bring this offering to the market



“ Product / market fit is being in a good market with a product that can satisfy that market. It’s about capturing value.

”



Marc Andreessen

DEFINING PRODUCT FOR A MARKET SLIDE

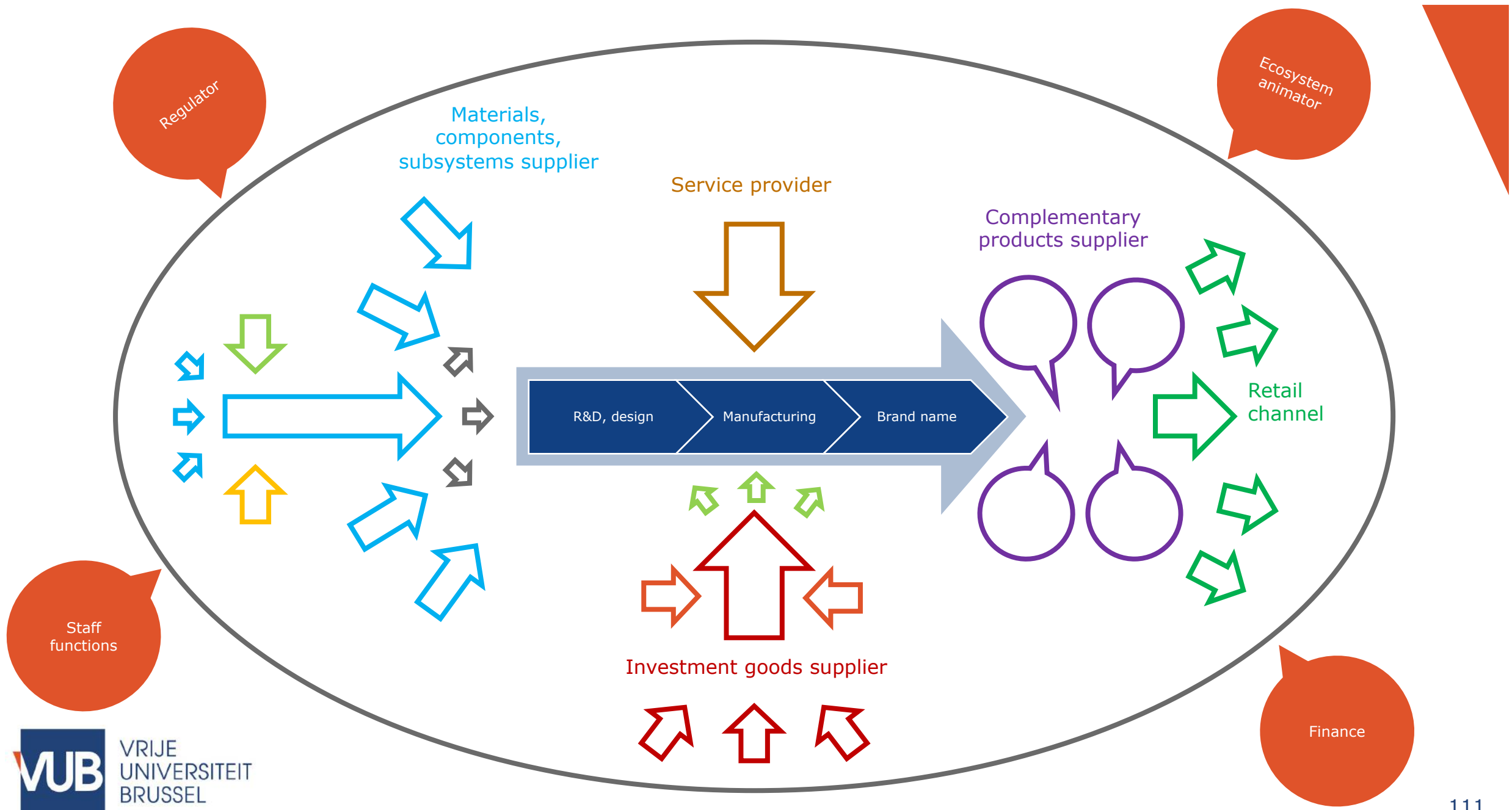


- Quite often not from scratch...
 - Often no-brainer, or +/- well-defined range of possibilities
 - Even at startup product/market is often known
- **Product starters:** they leave their existing employer when they have a concrete idea for a product, often for the customers of their current employer
- But for **Technology starters** finding a product/market for their core assets is often an issue
 - A technology in search of a market
 - Often the challenge is that the technology entrepreneur has no affiliation with the user industry
- You should consider and rank different product/market combinations
- In this part we focus on the analysis per product/market combination

KEY DIMENSIONS AND QUESTIONS



Core assets	Problem / Solution fit	Product / Market fit
What exactly are your core assets?	Who is your customer? What does he/she do today?	What will be your place in the supply chain/ecosystem?
Are your core assets exclusive?	What is his/her pain?	Who will be your key partners?
What strategy fits your core assets?	What solution do you offer?	Can you make money with this product / market combination?
In what stage of finalization are they? What remains to be done?	Why are you better than alternatives?	What resources do you need to start, grow?
Do you have freedom to operate?	Are there any show-stoppers?	Is it an attractive market?



WHAT'S YOUR PLACE?

YOUR PLACE IN THE ECOSYSTEM



- You almost never can provide **the whole product** on your own
 - There are exceptions...
 - Google, Facebook, eBay... (Don't underestimate their core assets! (see later))
 - Standard Oil, IBM in the 60's came very close
 - Full vertical integration = covering the full supply chain
 - From raw material to customer services
- Different roles are possible
 - Architect or module in the supply chain or ecosystem? Both can be realistic strategies, much depends on sector. Some examples:
 - Trinean: Full solution for biomedical lab analysis instead of just the reader component ('it's better to sell one copy at 100,000 euro than 1,000 at 100')
 - BEST sorting: sorting equipment for food manufacturing
 - Intel: component -> subsystem
 - Alternatives must be considered closely
 - We will see later that keeping your options open might be a sensible approach
- Role in ecosystem generally impacts many aspects:
 - Competitive position; capital needs; minimum size; scalability...

WHAT'S YOUR PLACE?

FOR
COMPONENT
SUPPLIERS



- Supplier of specific component (incl materials) to manufacturer downstream in value chain
 - Plastics for packaging
 - PDF editing tools for graphics arts market
 - 3D chip, system, camera, subsystem...
- How to be successful
 - Competitive advantage through
 - *IP, Speed, secrecy*
 - *Focus*
 - Relevance, added value
- Sustainability!
 - How long is your component needed?
 - How long can you continue to be the best?
 - *From when on is the component 'good enough', and do you lose your competitive advantage?*
 - Other players may embrace your field
 - *Manufacturing of GSM components for PCs*
 - *Spreadsheet -> Office Suite*

WHAT'S YOUR PLACE?



EXAMPLE
COMPONENT
SUPPLIER



Architect

- May require broad scope of activities at the outset
- Creates design rules, define visible information
- Convinces people this architecture will prevail
- As modularity is established, leads the evolution of the business ecosystem

Module player

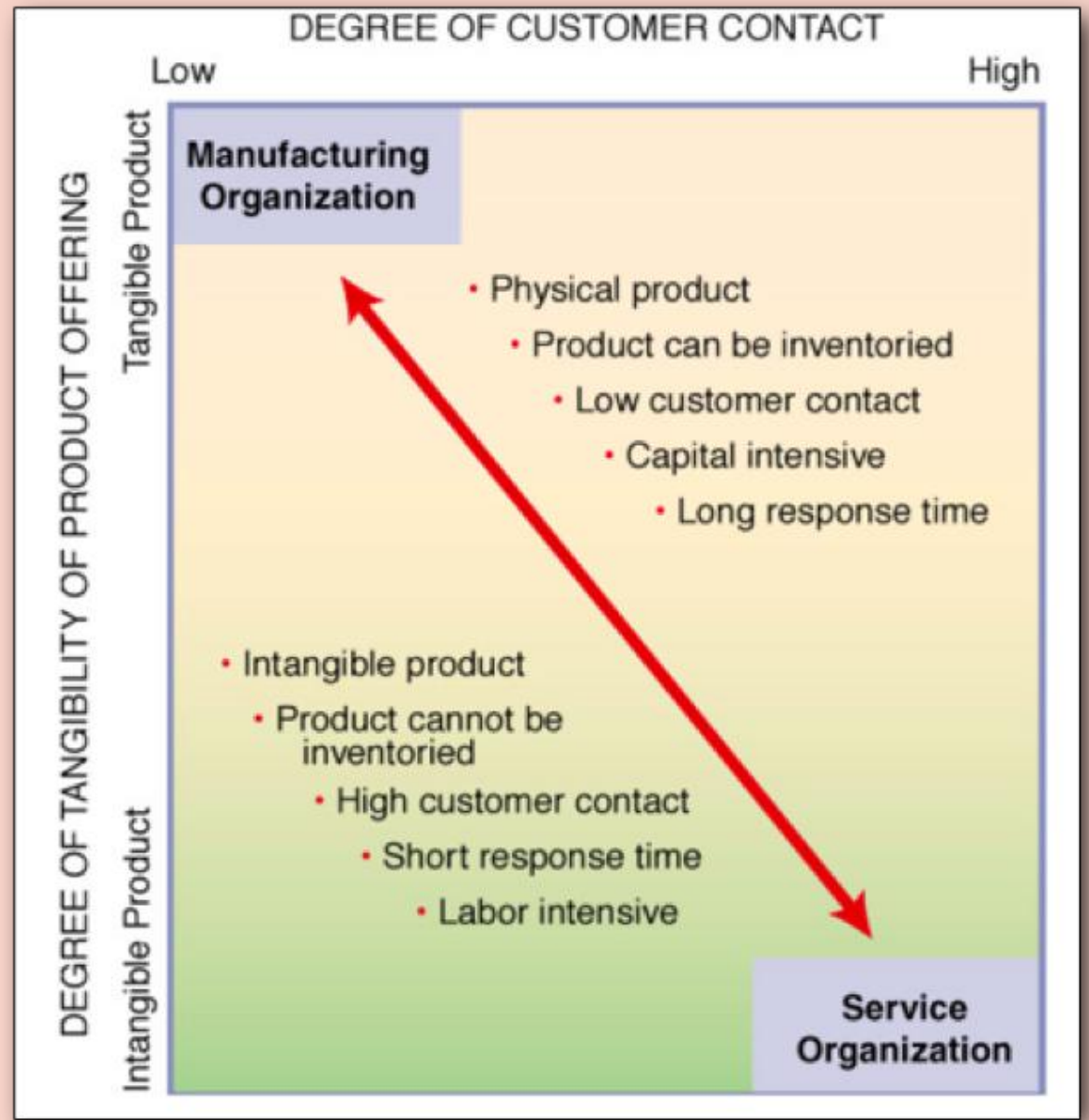
- Conforms to the architecture, interfaces and test protocols established by others
- Masters the hidden information involved
- Relies on superior execution

WHAT'S YOUR PLACE?

SCALEABILITY: SERVICES VS. IT AND MANUFACTURING



- How easily can you grow in size?
 - Google vs. Colruyt vs. McKinsey
- Pure Internet is almost infinitely scalable
 - But how durable is the competitive advantage then?
- Service are very hard to scale
 - Consultancy
 - Creative services

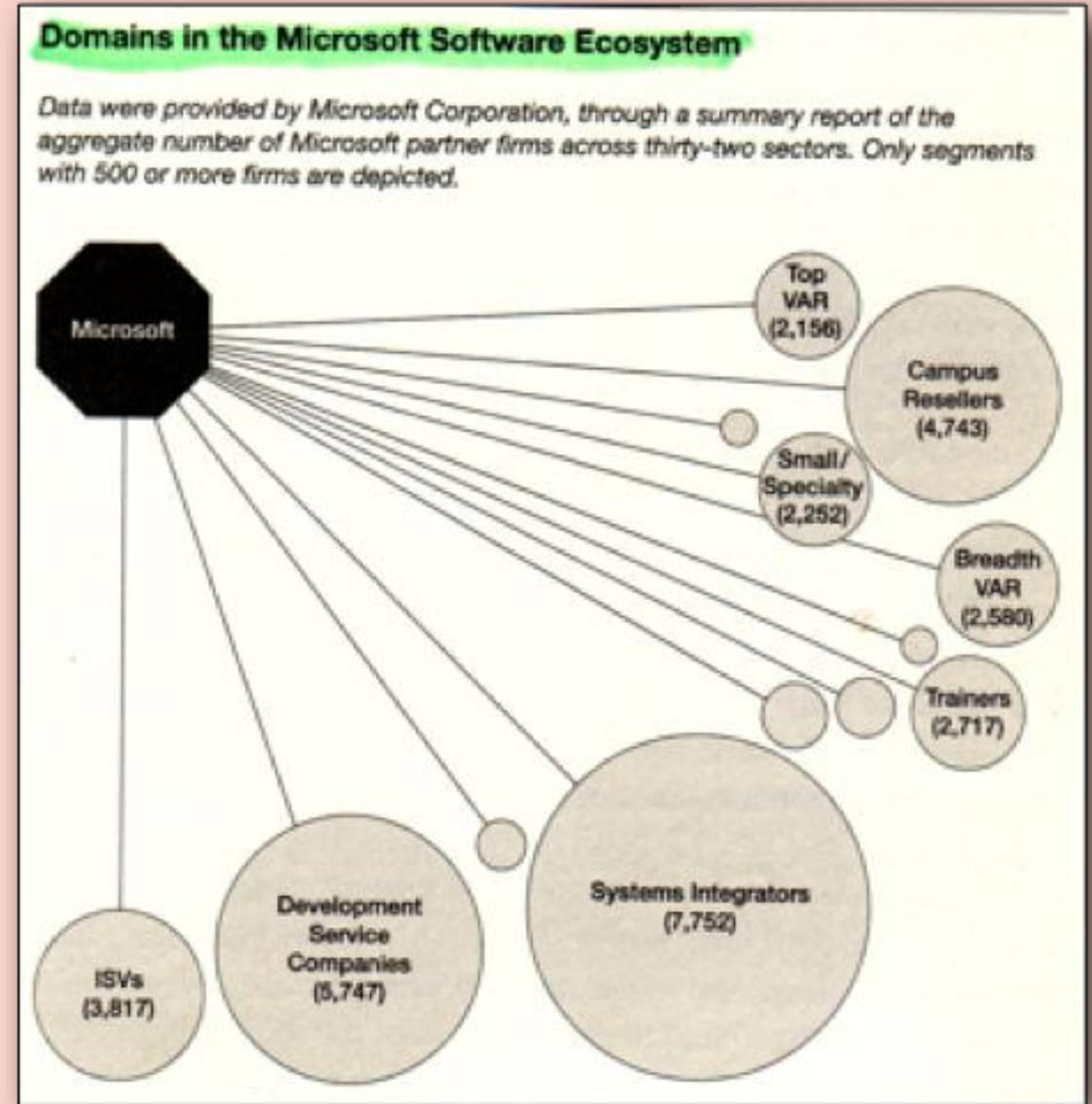


WHAT'S YOUR PLACE?

ECOSYSTEM
ANIMATOR



- **Some elements of strategy**
 - Compatibility between versions
 - Consistency of Application Program Interfaces (API's)
- **Example Microsoft early 2000's**
 - 40,000 employees
 - In total 38,000 partner companies
 - 5 million people develop software for/on Microsoft software (members MSDN)
 - 2,000 people full time on developer support



WHAT'S YOUR PLACE?

EXAMPLE
ECOSYSTEM
ANIMATOR: LI &
FUNG

- 100 y old Honk Kong based trading company
- Relationship with 8.000 firms in 40 countries
- Customizes supply chain services for clothing retailers such as Gap

LI & FUNG LIMITED

Home 投資者關係 Contact Us Sitemap Print Version

Our Business Global Network People Investor Relations Newsroom About the Li & Fung Group

Our Business



Complete Service Chain

"We Act as an Extension of Your Own Business to Manage All Aspects of Your Global Supply Chain"

We take care of all vital aspects of the supply chain so that our customers - leading retailers and brands - can focus on their customers.

Professionalism, experience and integrity have earned Li & Fung its reputation as the world's leading consumer goods sourcing company.

Dedicated teams of product specialists focus on each customer segment to professionally manage the entire supply chain - from product design and development, through raw material and factory sourcing, production planning and management, quality assurance and export documentation, to shipping control.



```
graph TD; Consumer((Consumer)) --> Retailer((Retailer)); Retailer --> Wholesaler((Wholesaler)); Wholesaler --> LocalForwardingConsolidation((Local Forwarding Consolidation)); LocalForwardingConsolidation --> CustomsClearance((Customs Clearance)); CustomsClearance --> ForwarderConsolidation((Forwarder Consolidation)); ForwarderConsolidation --> ShippingControl((Shipping Control)); ShippingControl --> ManufacturingControl((Manufacturing Control)); ManufacturingControl --> FactorySourcing((Factory Sourcing)); FactorySourcing --> RawMaterialSourcing((Raw Material Sourcing)); RawMaterialSourcing --> VendorCompliance((Vendor Compliance)); VendorCompliance --> ProductDevelopment((Product Development)); ProductDevelopment --> ProductDesign((Product Design)); ProductDesign --> ConsumerNeeds((Consumer Needs)); ConsumerNeeds --> Consumer((Consumer));
```

WHAT'S YOUR PLACE?

THE ROLE OF INDUSTRIAL PARTNERS



- Often essential role
 - IBM for Microsoft
 - Adobe for Enfocus
 - Softkinetic (and others) for Optrima
 - Energy players as investors in Photovoltech
- Different formats for role
 - Investor
 - Customer, supplier
 - Joint marketing
- Different time frames
 - Dependant on volatility of market, evolution of industry
- Roles change, balance of power shifts
- Always be on the outlook for interesting partners
- There must be a clear strategic reason for the partnership on both sides

WHAT'S YOUR PLACE?

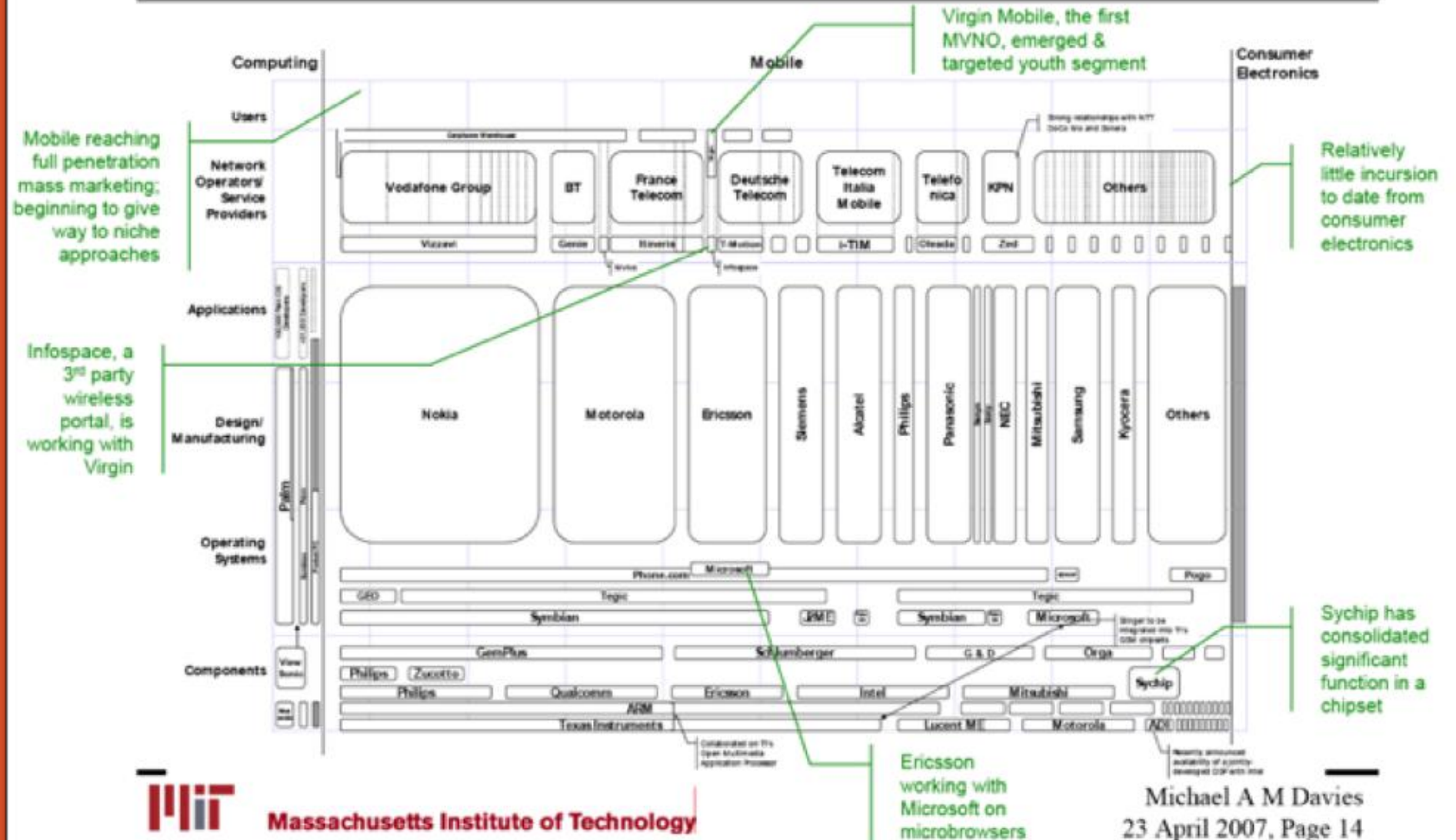
OUTSOURCING



- = The **contracting out** of a business function - commonly one previously performed in-house - to an **external provider**
- Deciding what to outsource and what to do internally is a major and very complex decision.
 - What are the core assets you wish to invest in? What is secondary?
 - Is the required expertise really available @ partner?
 - Will you depend on just one supplier?
 - Will you be able to compete? Can you become large enough to compete, given the market, network effects and economies of scale?
 - IP leakage: train your future competitor?
- Can provide shortcut to a more competitive product
- But it typically contributes little to building the people-embodied skills that are needed to sustain product leadership
- Example Chrysler
 - Engines and power trains just one more component, outsourced
 - Becoming dependent on Mitsubishi and Hyundai

Mobile in 2001

MAPPING THE BUSINESS ECOSYSTEM



MAPPING THE BUSINESS ECOSYSTEM

- Vertical axis
 - Generally (extended, 'whole' product') value chain
 - Relevance to subject at hand
 - *Are you an industry analyst?*
 - *Or do you need it for company-strategic purposes?*
- Horizontal axis:
 - Market (standards)
 - Adjacent markets
- Cells
 - Companies, products
 - Relative size
- Dynamics
 - Spot changes in different dimensions
 - At industry level, at company level
 - Identify opportunities and threats
- **Your position and strategy**

MAPPING THE BUSINESS ECOSYSTEM

THE THREE ECOSYSTEM MAP DIMENSIONS



ARCHITECTURAL MAP

- How things work, roles
- Contributions of individual participants or business elements
- “You are here and there are your neighbors”
- Basic education about the STRUCTURE of the business, roles and niches, and who its competitors and complementors are

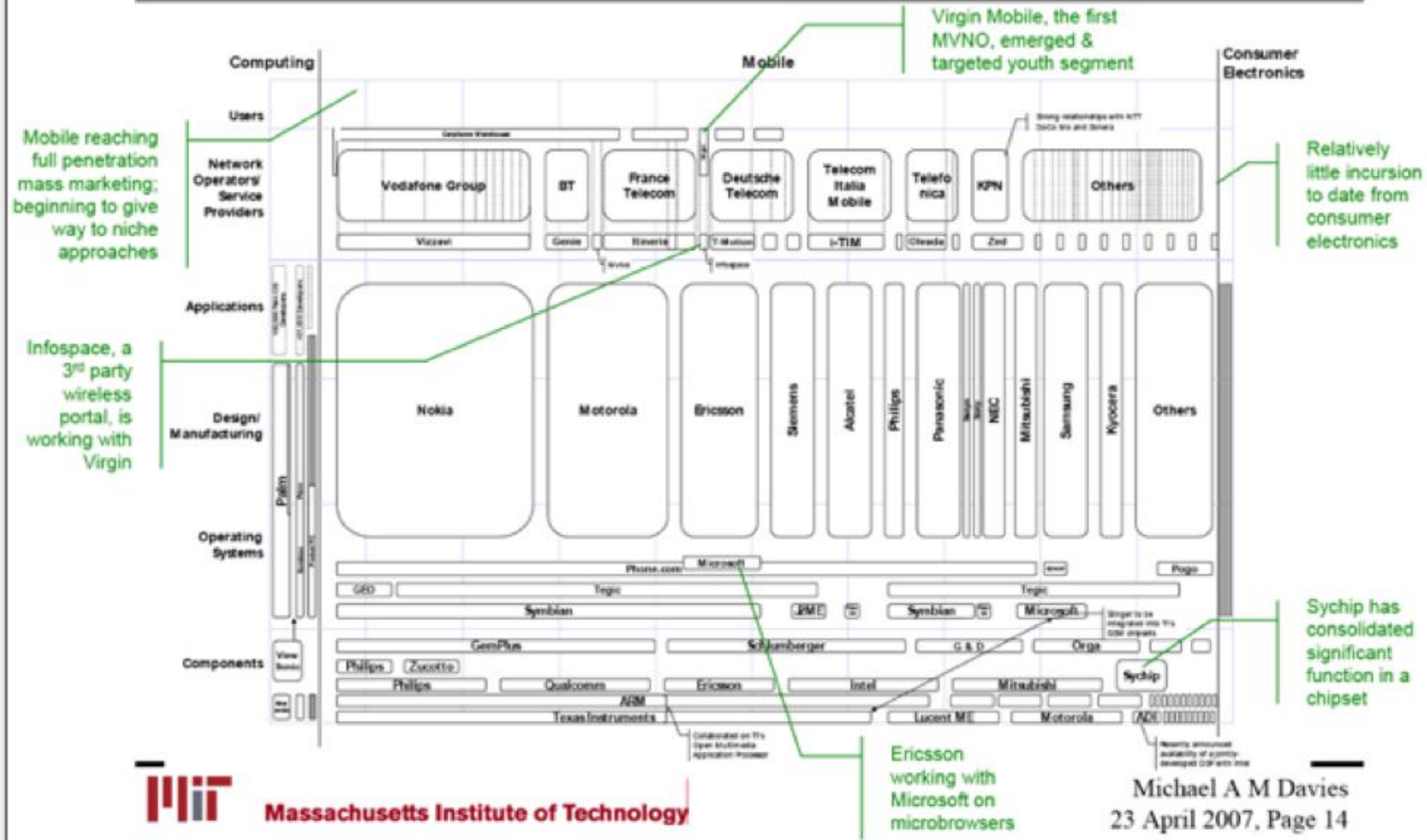
BUSINESS MAP

- Participants with relative share, at a point in time
- Optionally, adjacent ecosystems too
- “Who’s doing well”
- Illustrate relative SCALE or strength of a business, its competitors and complementors
- Can demonstrate ecosystem invasion

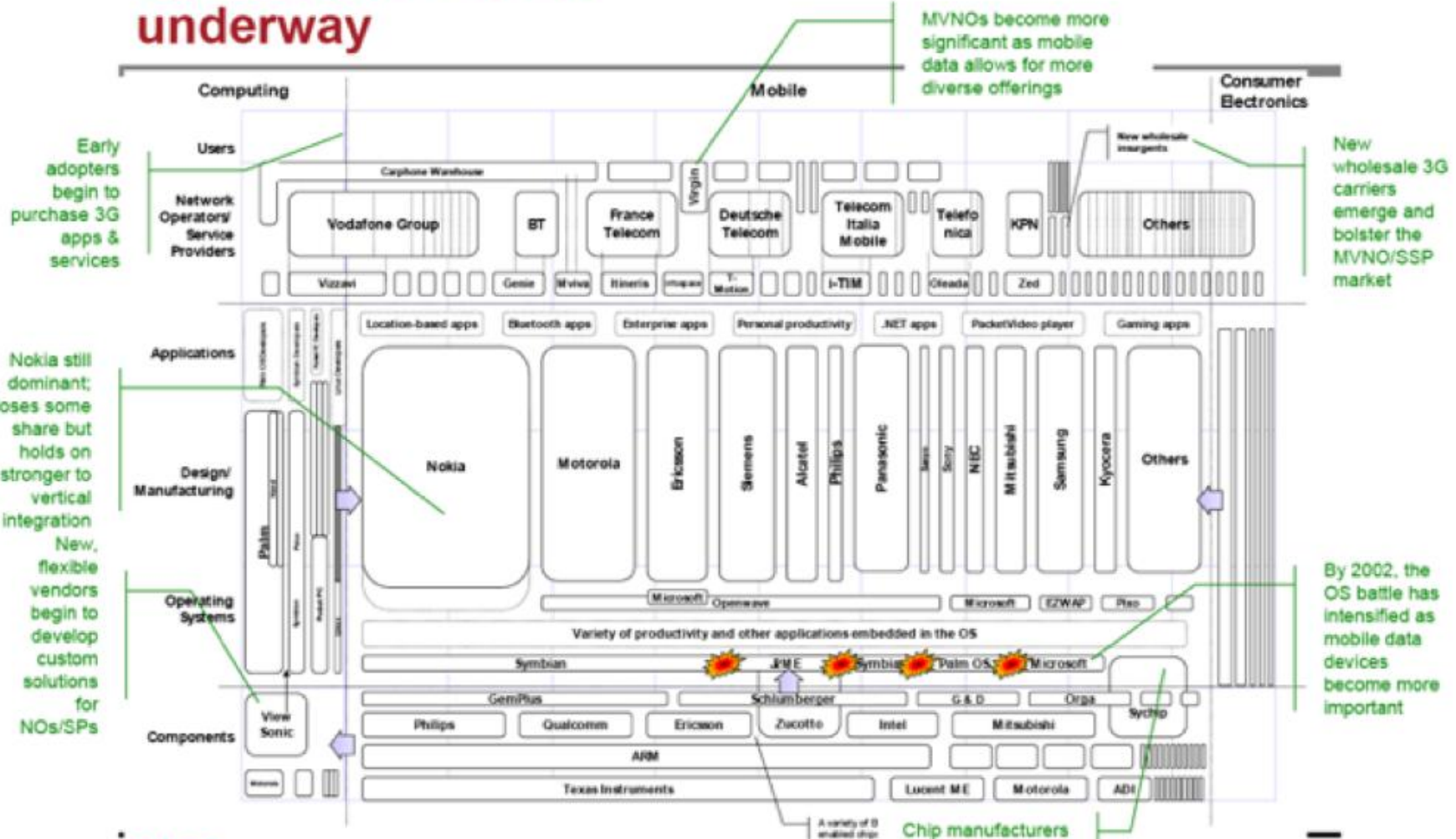
CHRONOLOGICAL MAP

- Detailed ecosystem changes (or events) over time
- Activity compared with competitors (benchmark)
- Evolution trajectory
- “What’s going on”
- Show historical or potential DYNAMICS in the ecosystem
- Show strategic intent
- Help plan for strategic goals

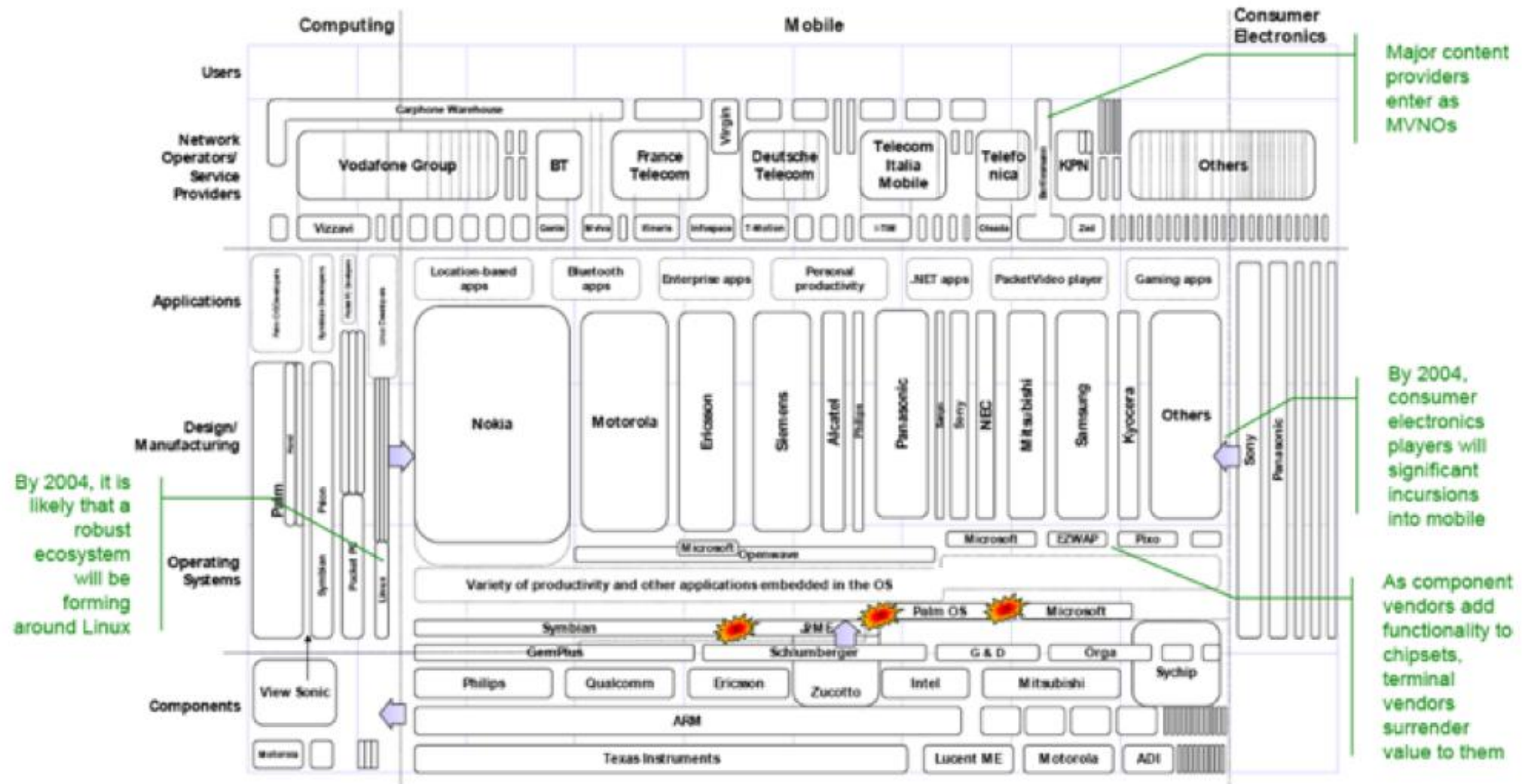
Mobile in 2001



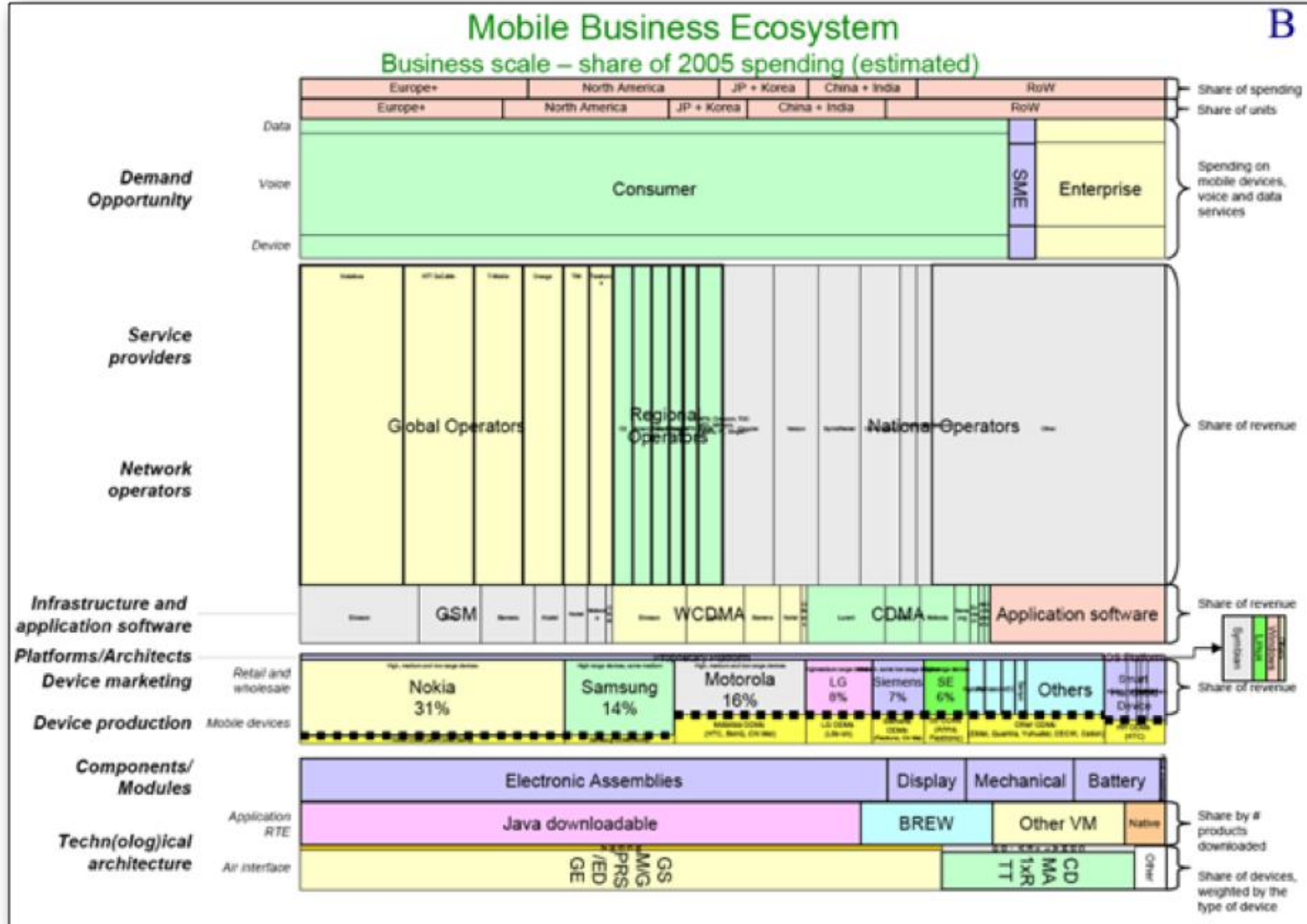
By 2002, transition underway



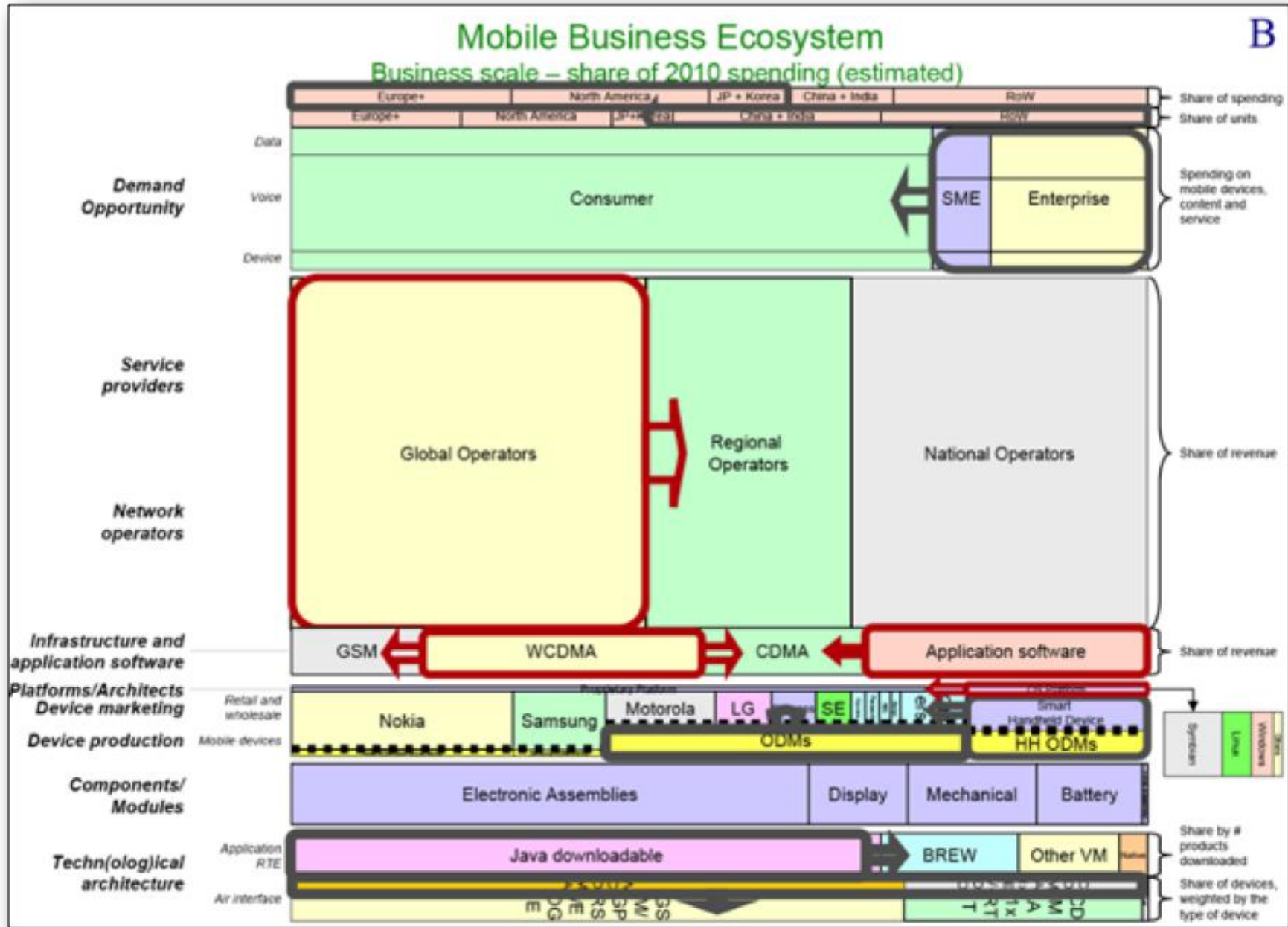
By 2004 - major contests



BUSINESS MAP



CHRONOLOGICAL MAP



■ ECOSYSTEM MAPPING

BY 2010:



Same markets?

Same players?

Same value chain?

What happened to Nokia?

WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



Ecosystem positioning

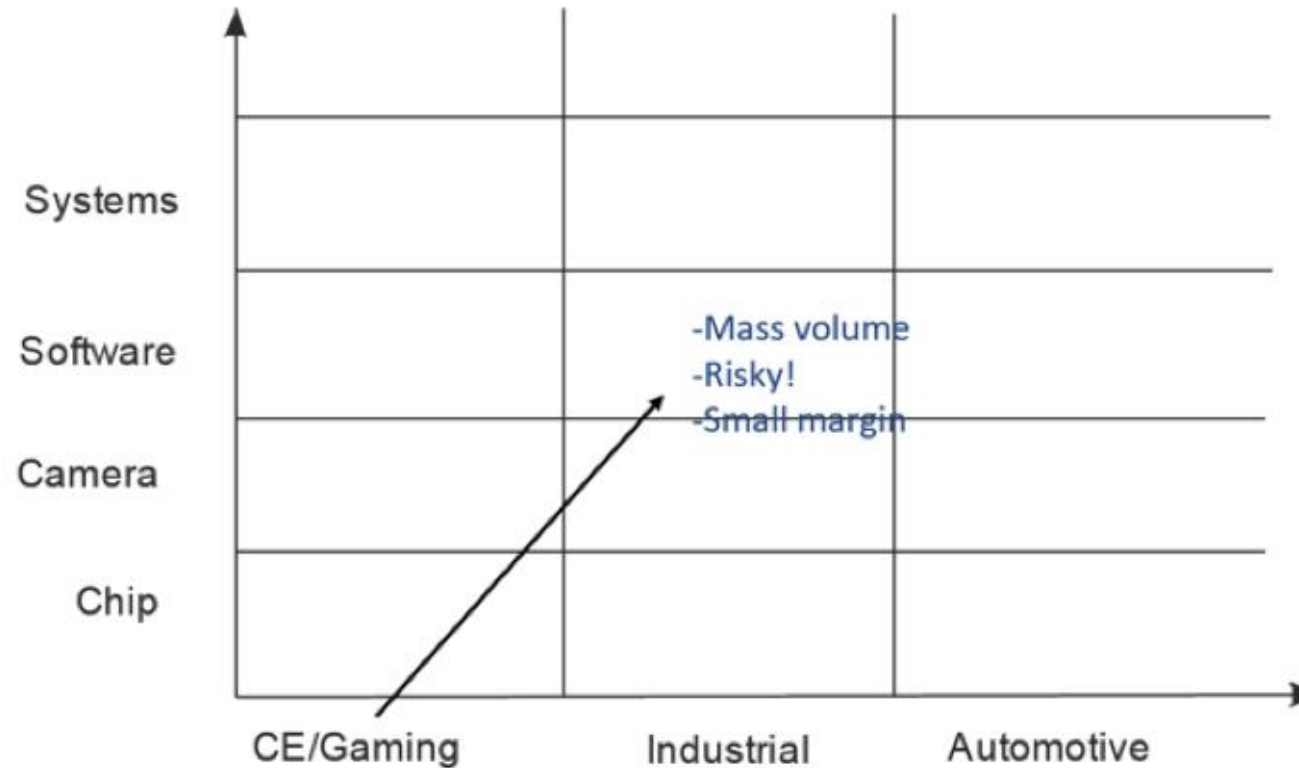
- Tremendously important
- Extra dimension, for Optrima in big lines:
 - Consumer (= mainly TV, PC, Gaming)
 - Industrial (= many small ones)
 - Automotive
- Helps you make good decisions
- Important to forge partnerships

WHAT'S YOUR PLACE?

MAPPING THE
BUSINESS
ECOSYSTEM:
OPTRIMA CASE



3D Ecosystem

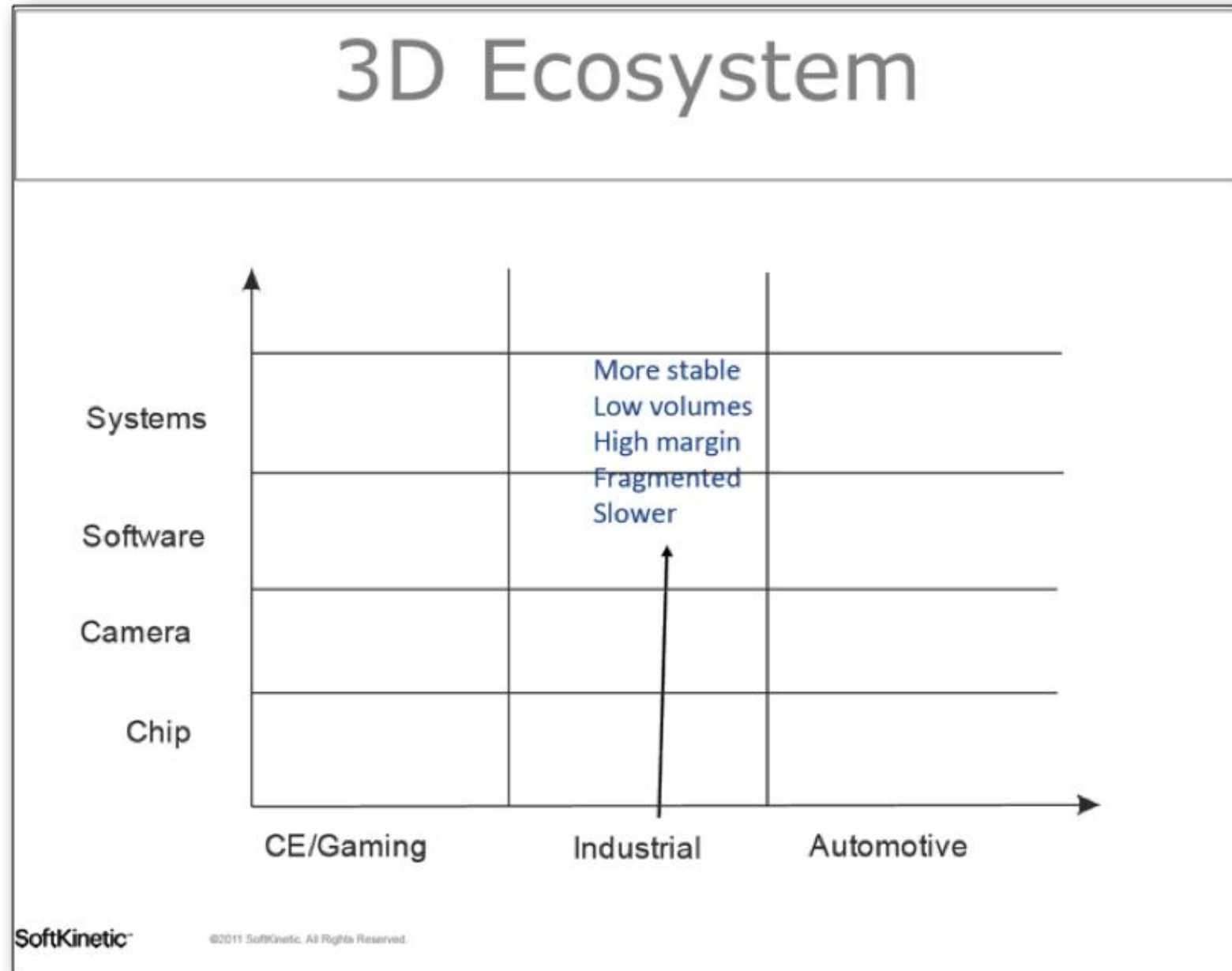


SoftKinetic™

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WHAT'S YOUR PLACE?

MAPPING THE
BUSINESS
ECOSYSTEM:
OPTRIMA CASE

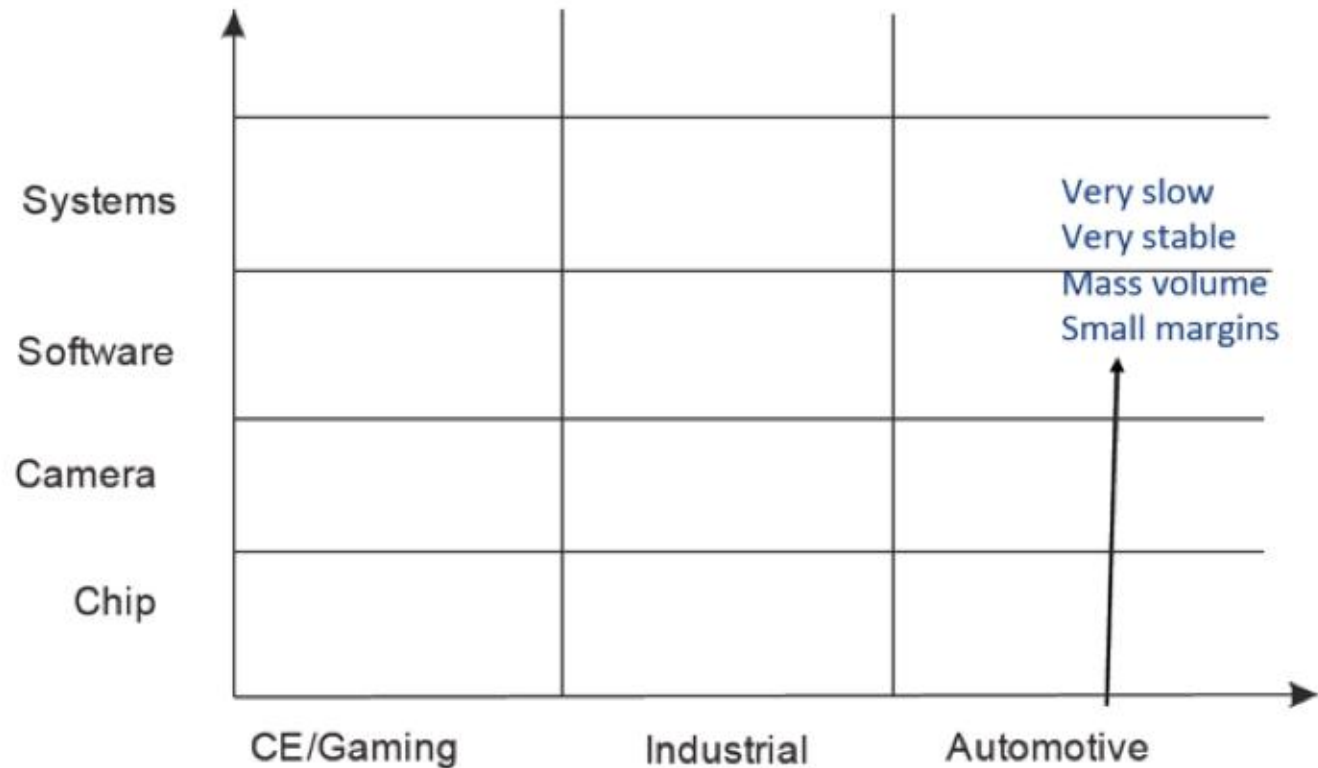


WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



3D Ecosystem

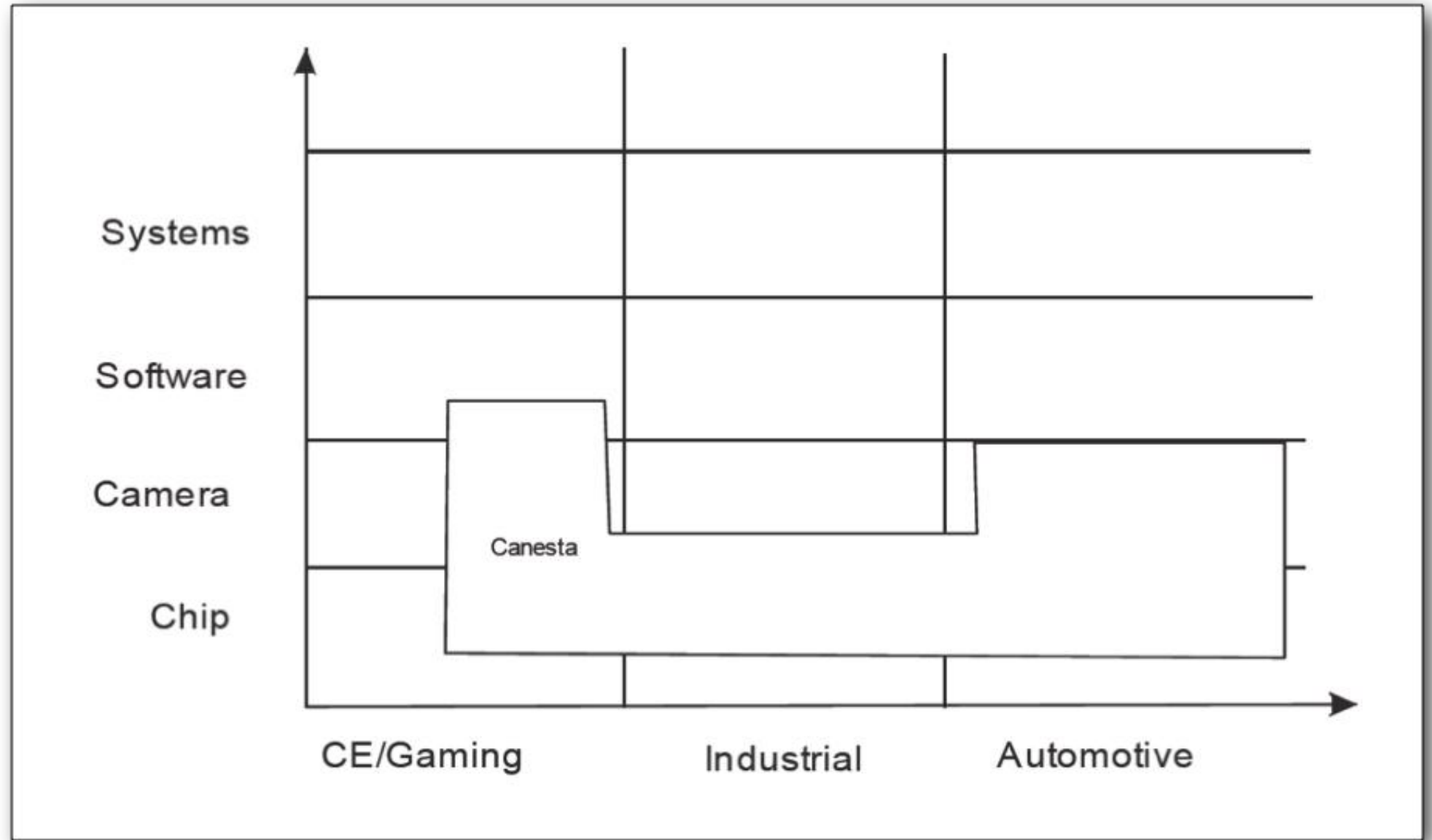


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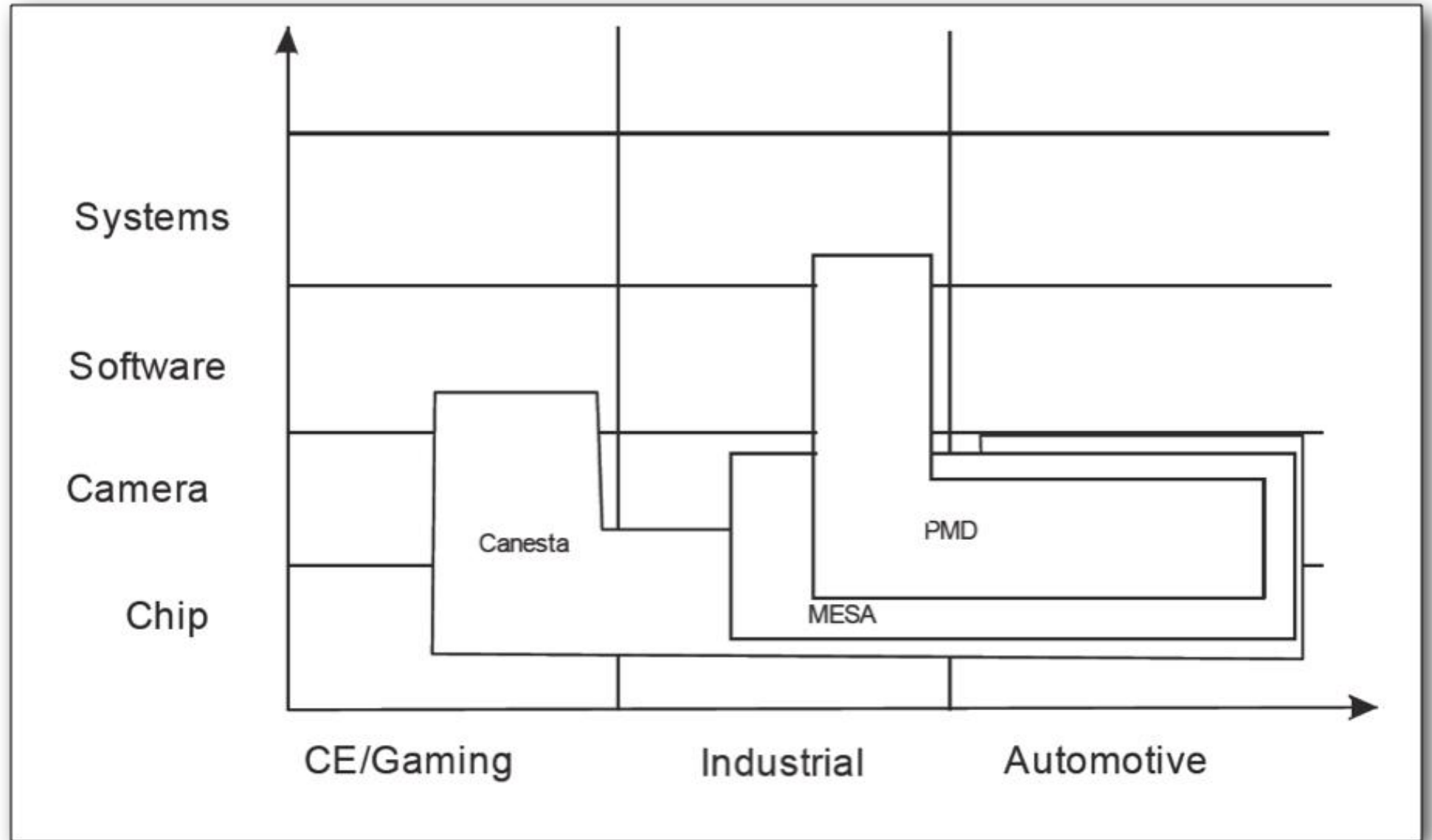
WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



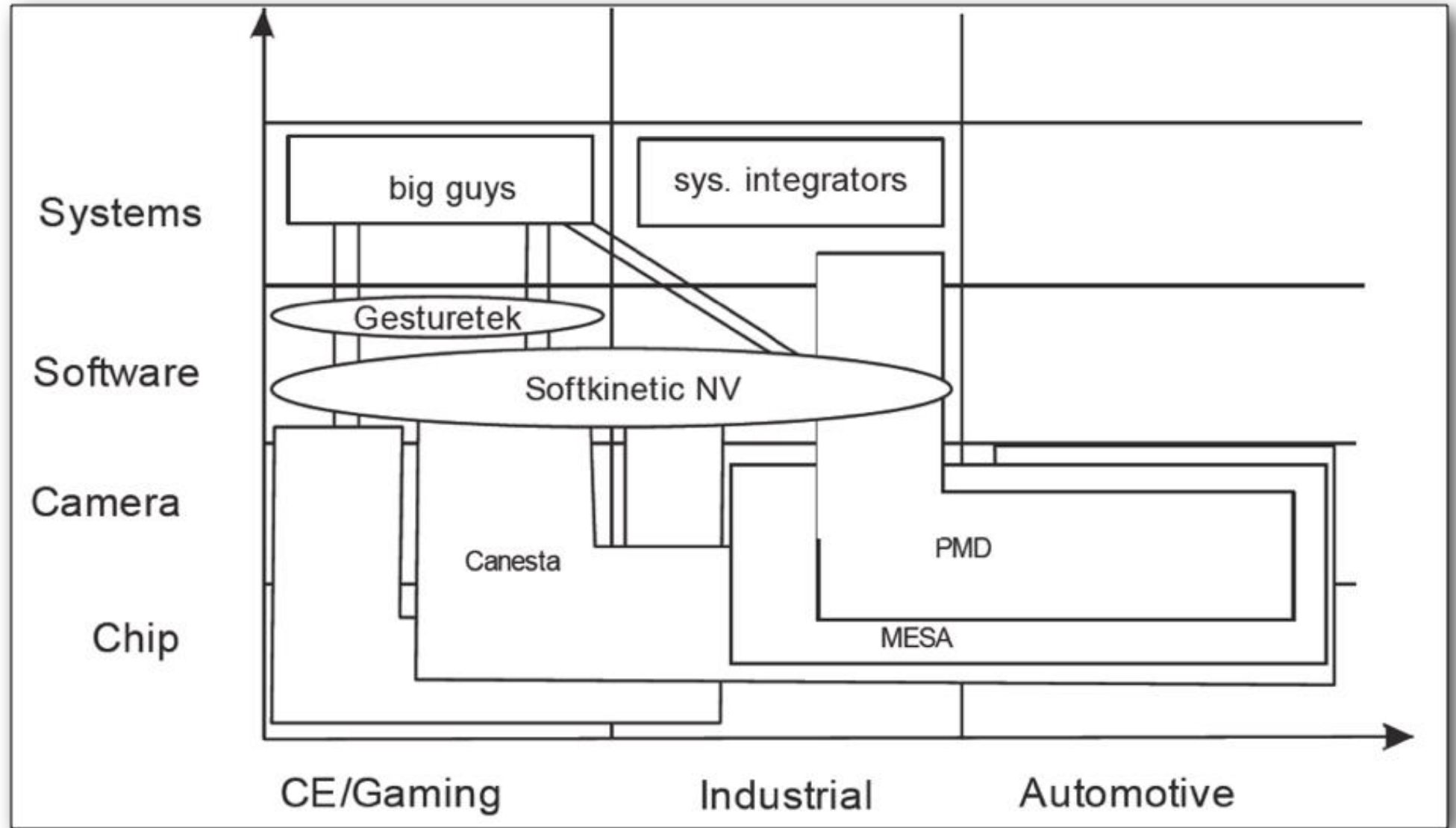
WHAT'S YOUR PLACE?

MAPPING THE
BUSINESS
ECOSYSTEM:
OPTRIMA CASE



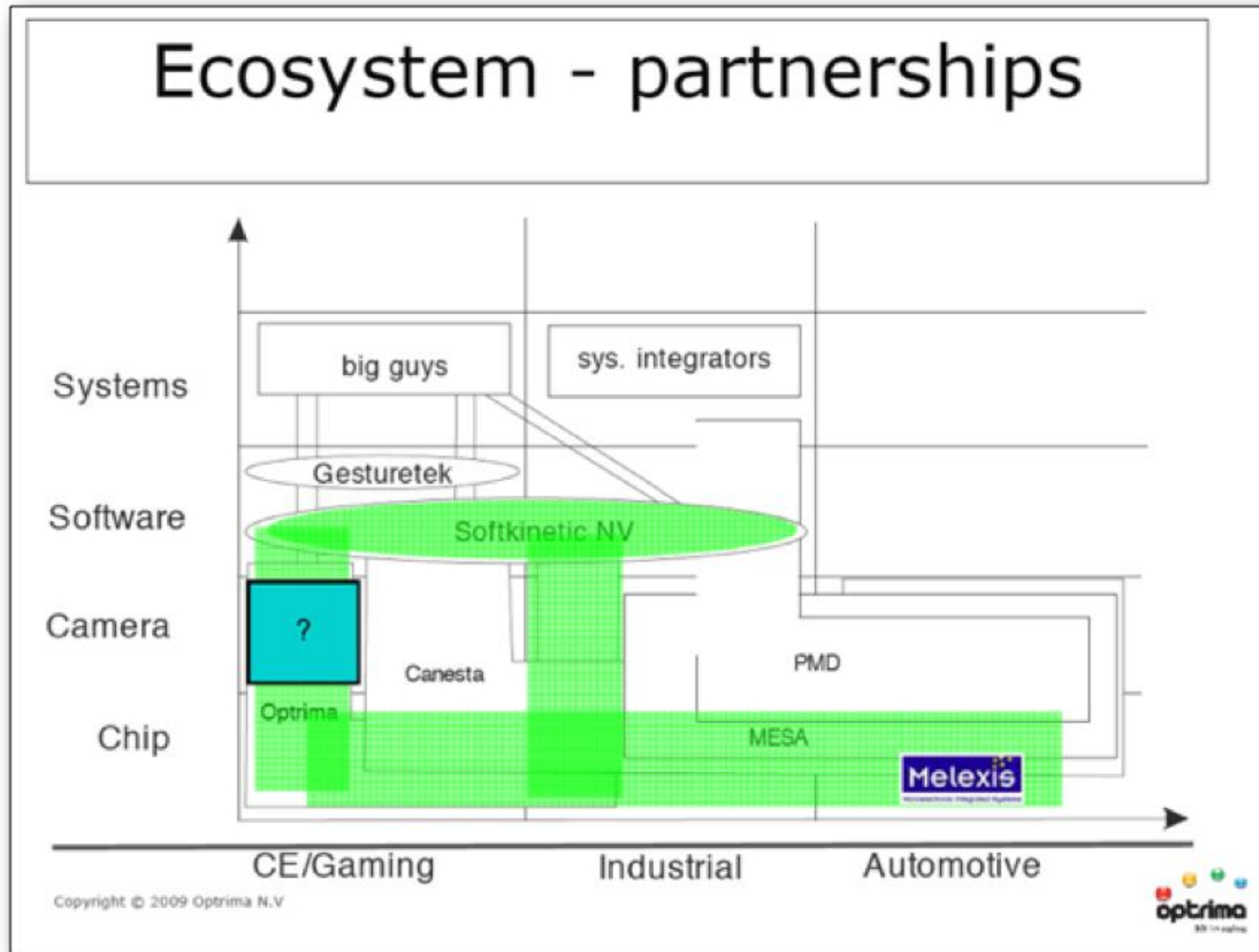
WHAT'S YOUR PLACE?

MAPPING THE
BUSINESS
ECOSYSTEM:
OPTRIMA CASE



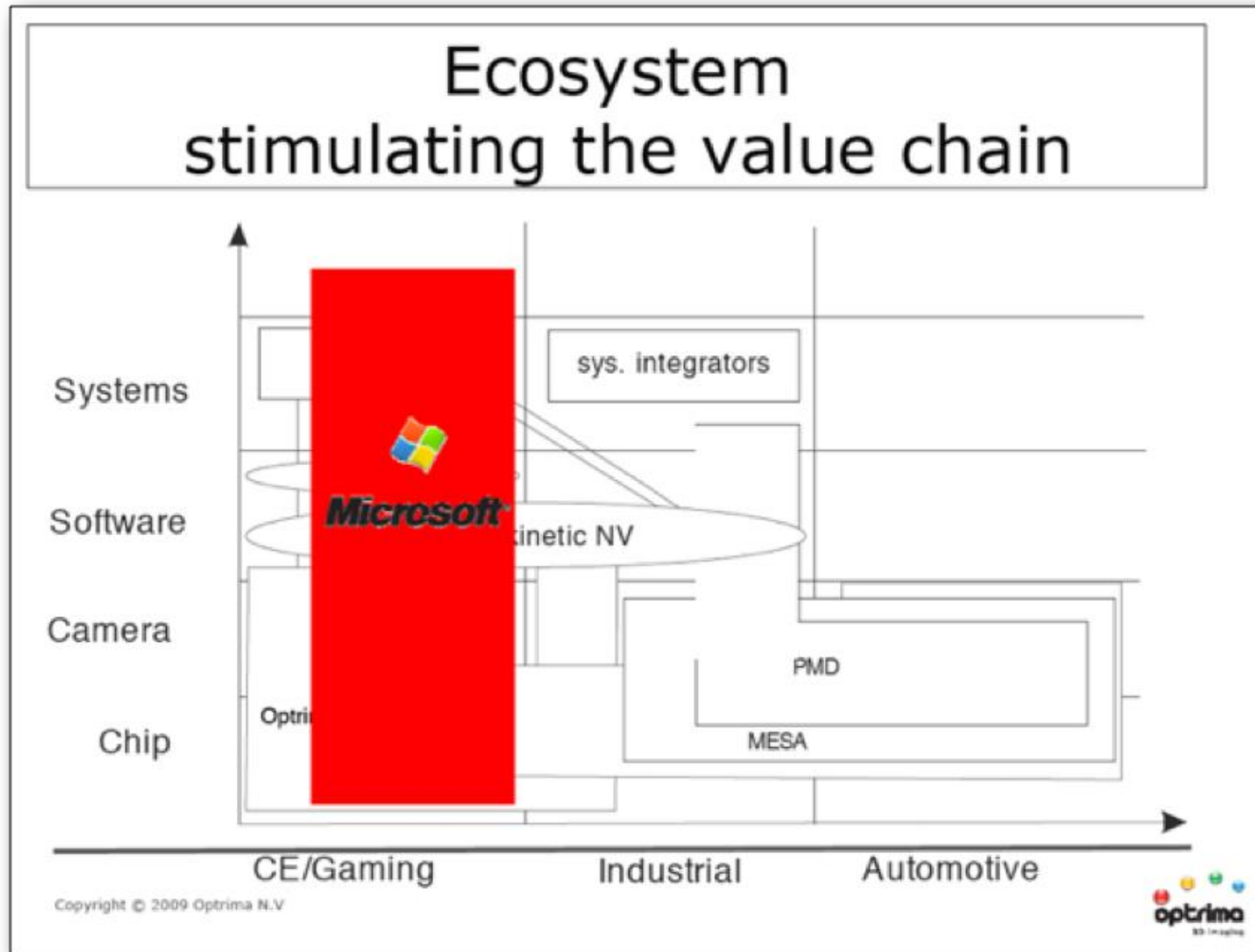
WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE

Key Milestone for Optrima



- Announced 2009 → project Natal
- Worldwide Release November 2010
- Fastest selling CE product (8 million in 9 weeks)

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XBOX Kinect: Good or bad?

- Before/After Microsoft:
 - Before: Market recognition lower
 - Before: A lot of explaining/evangelizing to do
 - After: There is a market for 3D ToF
- Microsoft is big, but cannot consume the whole market, main focus today is gaming, not TV, PC, STB
- Sony/Nintendo/??? also exist
- Microsoft wants the best technology
- People want to pay for independence
- Microsoft has been accelerator in non-microsoft markets, eg. security monitoring, automotive, ...

WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



- Microsoft To Acquire 3D Chipmaker Canesta (10/29/10)
- SUNNYVALE, Calif. — Canesta Inc., which makes 3-D imaging chips, has agreed to be bought by Microsoft Corp. for an undisclosed amount.
- The deal announced Friday comes less than a week before Microsoft is set to start selling Kinect, an add-on for Xbox 360 that can interpret players' body movements, using them to control what happens in the game. Kinect will allow people to play video games without having to mash buttons on a plastic controller.
- Redmond, Wash.-based Microsoft worked with another 3-D sensor company, PrimeSense, in building Kinect. It had also acquired 3DV, a PrimeSense competitor, but did not end up using its technology.
- Canesta, based in Sunnyvale, said the acquisition is expected to close before the end of the year.

[Back to news overview](#)

Sony buys VUB spin-off SoftKinetic !

09.10.2015

The Brussels company SoftKinetic, producer of 3D Sensors, has been sold to Sony. Their sensor was invented and developed at the ETRO lab from Vrije Universiteit Brussel with support from FWO, IWT and the Brussels Region.

Professor Hugo Thienpont, Vice Rector for Innovation and Valorisation of Vrije Universiteit Brussel: "In the future it is expected that this original VUB technology will become widespread."

SoftKinetic makes hardware and software that can detect and analyze movements in 3D. The technology is after all already in use at BMW and Facebook, the latter for its 3D glasses Oculus Rift. The hard and software of Softkinetic will undoubtedly become mainstream the coming years. The technology will not only be used in game consoles, but also in the automotive industry, such as self-driving cars and virtual reality applications.

And in 2015...

WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM: OPTRIMA CASE



- October 8, 2015 **Sony Acquires Belgian Softkinetic Systems S.A., in its Push Toward Next-Generation Range Image Sensors and Solutions**
- Application areas: Surveillance cameras; factory automation, Internet of Things, drones and automotive applications.
- Sony possesses expertise in advanced camera technologies, lenses, signal processing, recognition algorithms, power consumption management.
- We acquired Softkinetic Systems in order to gain further technology and business know-how necessary for developing new applications and moving into new markets.
- Sony will focus on **combining Softkinetic's ToF range image sensor technology expertise with its own technologies** with the aim of **developing the next generation of range image sensors** and solutions, not only in the field of imaging, but for broader sensing-related applications as well.
- No material impact is anticipated on Sony's consolidated financial results for the fiscal year ending March 31, 2016 as a result of the acquisition.

WHAT'S YOUR PLACE?

MAPPING THE BUSINESS ECOSYSTEM



- Your position and strategy
 - What is your place
 - Evolution: strategy
- Why you do this
 - Required understanding of your market
 - Anticipate changes, define own strategy
- To be used by entrepreneur in an intelligent way
 - Scale, degree of detail... depend on requirements of project
 - In some circumstances it may be overkill

WHO WILL BE YOUR KEY PARTNERS?

COMPLEMENTARY ASSETS



- **Your core assets generally are not sufficient to have a rounded offer to the market**, complementary assets may be required
 - Especially if you are a small startup...
 - Complementary assets generally linked to value chain of industry, or to product complements
 - *Biotech & pharma,*
 - *Apple & music labels for iPod*
- If there are players with important and 'exclusive' complementary assets: you may need to team up with them, and share the value
- Owners of strong complementary assets may also consider entering in your market
 - Can you forbid them (patent?)
 - Does it make sense for them, does it fit in their strategy?
 - Speed versus resources...
- **Note on terminology**
 - ≠ Complementary goods/services: are traded on markets
 - vs. Complementary assets: has strategic importance to a firm and may lead to a competitive advantage and generation of value. Usually you need these assets to offer a rounded product/service to the market, but other may have control over them. (e.g. can be infrastructure, specific human resources...)

WHO WILL BE YOUR KEY PARTNERS?

COMPLEMENTARY
ASSETS: EMI &
CAT EXAMPLE

- **EMI**: electronics company active a/o in sound equipment, ended up in recording business
- The CAT Scanner was a medical imaging system developed by Godfrey Hounsfield at EMI.
- EMI had **no track record in medical electronics** but was so confident of the success of the product that it decided to develop its own scanner business.
- This market attracted entrants by established medical imaging companies. These were **better placed to sell and support this equipment**.
- Although EMI had applied for a number of **patents**, this **did not prevent** the appearance of competing machines. By 1976, EMI had lost market leadership in the US market.
- EMI was beginning to have difficulties in other parts of its business. In 1979, EMI was sold. The buyer immediately **sold off the CAT scanner business to GE at a knockdown price**.
- **Godfrey Hounsfield shared the Nobel prize for medicine in 1979.**



WHO WILL BE YOUR KEY PARTNERS?

COMPLE-
MENTARY
ASSETS: EMI &
CAT EXAMPLE



■ Core assets

- Relevant
 - Nobel prize-level knowledge of CAT scanners
 - Patents
 - First mover advantage
- Irrelevant
 - Consumer brand name
 - Knowledge of movie and recording industry

■ Needed **complementary assets**

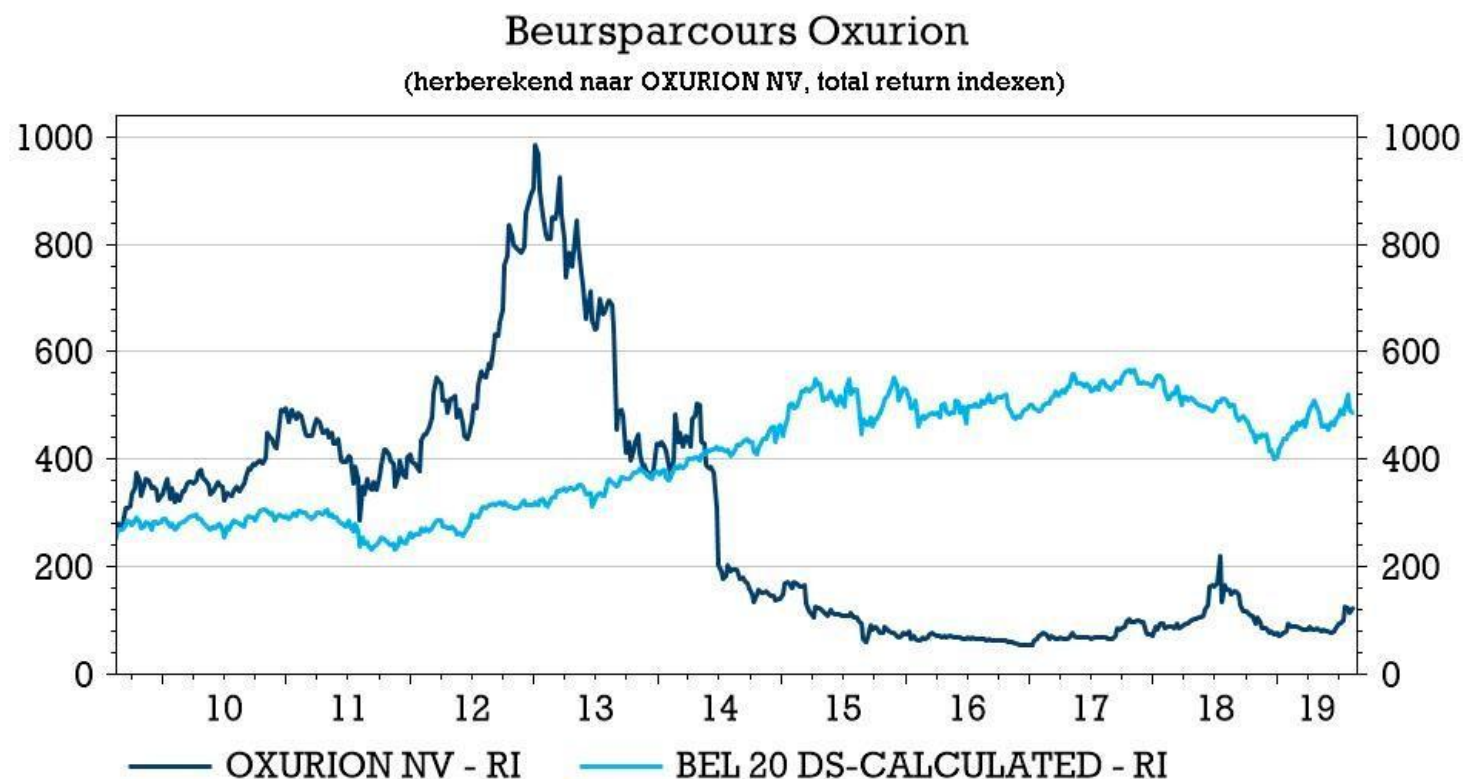
- Experience in manufacturing medical products
- In-depth understanding of hospital market
 - investment decision making, key players,...
- Expertise in reimbursement processes by national social security organizations
- Sales and marketing channels
 - GE: 300 persons
- Service and support system
 - GE 1200 persons

■ Threat of entry

- General Electric, Siemens, Philips = incumbents in medical equipment market
 - Posses complementary assets
 - Virtually unlimited resources

WHO WILL BE
YOUR KEY
PARTNERS?

COMPLE-
MENTARY ASSETS:
THROMBO-
GENICS



Bron: Refinitiv Datastream

“ Key questions: are the complementary assets you need owned (more or less) exclusively by specific players in the market? Or are they readily available, or easy to build up yourself? ”



WHO WILL BE YOUR KEY PARTNERS?

COMPLEMENTARY ASSET STRATEGIES



		Do incumbents control assets that you need to create value from your innovation?	
		No, free or don't yet exist	Yes by powerful incumbents
How well do you control the ideas behind your innovation?	Weak	Innovators can profit if they are fast or stealthy—otherwise risk “catch-up” e.g. Disney, fashion	Ensure partners have a reputation & prove your value early e.g. A123, semiconductors
	Strong	Profit opportunities but need to build a value chain – hard to do, need \$\$\$ e.g. eInk, Nintendo	Licensing, partnerships, key is where on value chain to contract e.g. biotech

WHO WILL BE YOUR KEY PARTNERS?

COMPLE- MENTARY ASSET STRATEGIES



		Do incumbent's complementary assets contribute to the value proposition from the new technology?	
		No	Yes
Can innovation by the start-up preclude effective development by the incumbent?	No	The Attacker's Advantage	Reputation-Based Ideas Trading
	Yes	Greenfield Competition	Ideas Factories

Gans and Stern (2003)

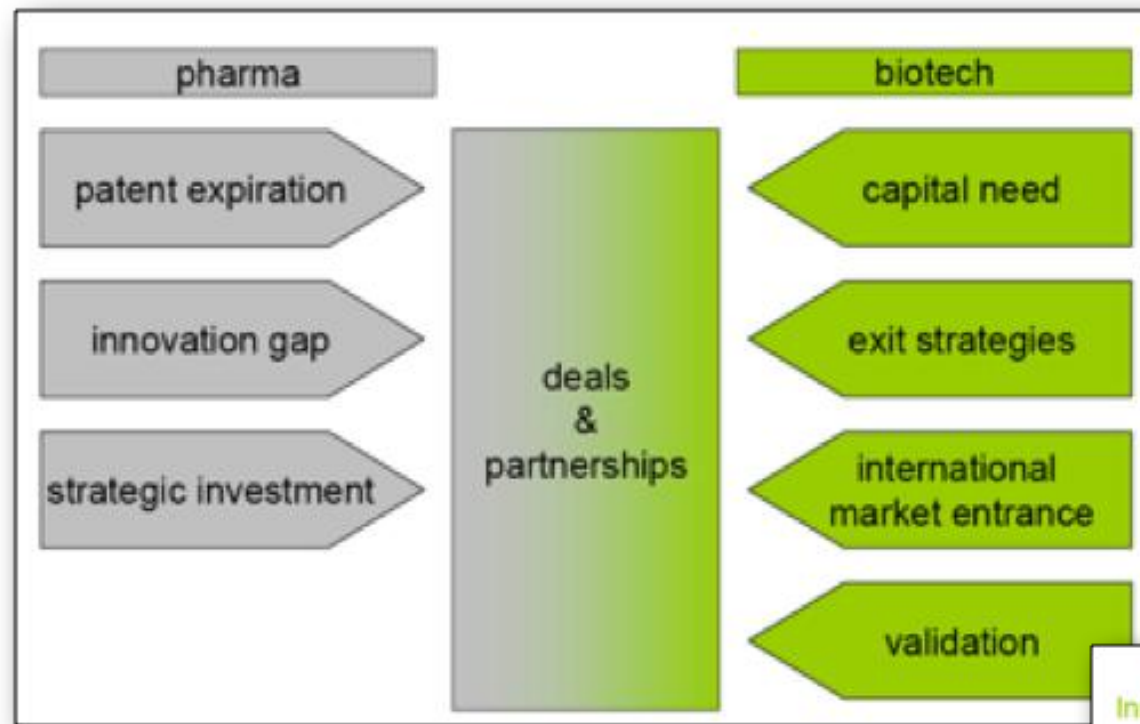
WHO WILL BE YOUR KEY PARTNERS?

IDEAS FACTORIES

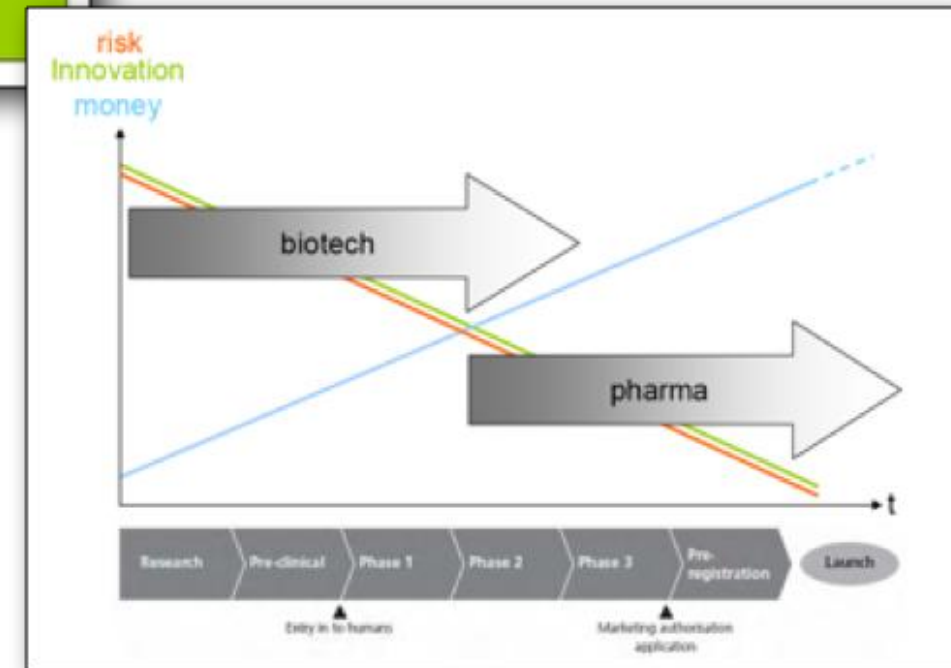


- Strong intellectual property protection by startup but incumbents control the complementary assets (e.g. Biotechnology, electronics components)
- Key issue is not longer whether to pursue a cooperation strategy but when and how
- Start-up with leading technology will focus on research and commercialize through reinforcing partnerships
- Ideas factories can
 - Enhance the competitive advantage for incumbents by reinforcing the basis of advantage for those established firms
 - Offer a fertile source of new innovations for incumbents, especially when the start up's technology is complementary to the existing value proposition
- Return on innovation will depend on the bargaining power of the start-up
 - And its bargaining skills!
 - Hire accordingly
- How to enhance the bargaining power of your start-up
 - Clearly signal and demonstrate the value of the technology
 - Disclosure does not undermine bargaining power because appropriability is strong!
 - Play established firms against each other in a bidding war

WHO WILL BE YOUR KEY PARTNERS?



COMPLEMENTARY ASSETS IN BIOTECH



WHO WILL BE YOUR KEY PARTNERS?

GREENFIELD COMPETITION



- Strong intellectual property protection and incumbent complementary assets are unimportant
- Doesn't happen that often... (e.g. Xerox)
- Start-up innovators can preclude effective imitation
- The power to determine the most effective commercialization strategy lies with the start-up innovator
- Both competition and cooperation may be effective
- Ability to control the development and evolution of platforms and standards may be decisive

WHO WILL BE YOUR KEY PARTNERS?

ATTACKER'S ADVANTAGE



- Poor intellectual property protection + incumbents do not control the complementary assets. This happens very often!
- Startups must exploit the blind spot of current market leaders & target the underserved customer groups
 - “Stealth” is a crucial element of an effective competition-oriented commercialization strategy
 - Don’t moon the giant!
- Competition is likely to be intense
 - Start-ups and incumbents are on a “level playing field”
 - Start-ups have an opportunity to overturn established positions and to capture market leadership by effectively developing and diffusing competence-destroying technology
 - Incumbents have the opportunity to imitate once they recognize the nascent threat
 - Easy imitability weakens position of initial innovator
 - Increases risk of getting only small share of the value over the long-term
 - Reduces advantage from either cooperation or competition
- Speed is of essential importance
 - Be faster, so as to be systematically ahead of competition
 - This applies as long as you can make the difference based on technical advantage!
- Ecosystems properties such as network effects and lock-in determine whether first mover can build sustainable advantage (e.g. Ebay)

WHO WILL BE YOUR KEY PARTNERS?

REPUTATION- BASED IDEAS TRADING



- Poor intellectual property protection and incumbents control the complementary assets necessary for effective commercialization
- Disclosure problem !!
- In capital intensive industries, incumbents are tempted to expropriate technology revealed to them (e.g. Automobile, aircraft..)
- Start-up has to rely on reputation-based ideas trading

WHO WILL BE YOUR KEY PARTNERS?

COMPLE- MENTARY ASSET STRATEGIES

Figures represent the rate of cooperation within each “cell”		Do incumbent’s complementary assets contribute to value proposition from new technology?	
		No	Yes
Can invention by the start-up preclude effective development by the incumbent?	No	14%	30%
	Yes	34%	56%

MIT research on commercialization strategies

“

A business model describes
the rationale of how an
organization creates,
delivers, and captures value.

”



Osterwalder et al.
2010

BUSINESS MODEL

- A business model answers two key questions in finding a product/market combination:

1. Can you make money with this product / market combination?

- It is the Zen description of the way you make money
- Different ways to make money (see next slide)

ABOUT



2. What funding (resources) do you need to start, grow? (see also entrepreneurial finance)

- The amount of cash required before a company achieves positive cash flow
 - Investments
 - Losses during startup period
 - Money tied up in the process (stock, payment conditions...)
 - What is the maximum financing need of the business model?
 - Over what period of time is the investment required?
 - At what point does the cash flow of the company turn positive? What is the break-even point?
 - Where do you (plan to) get the money from? How does this affect your company?
- These are reflected in the **value chain** of a company!
 - Note on terminology: business model vs. business plan (see later)

BUSINESS MODEL

DIFFERENT WAYS TO MAKE MONEY



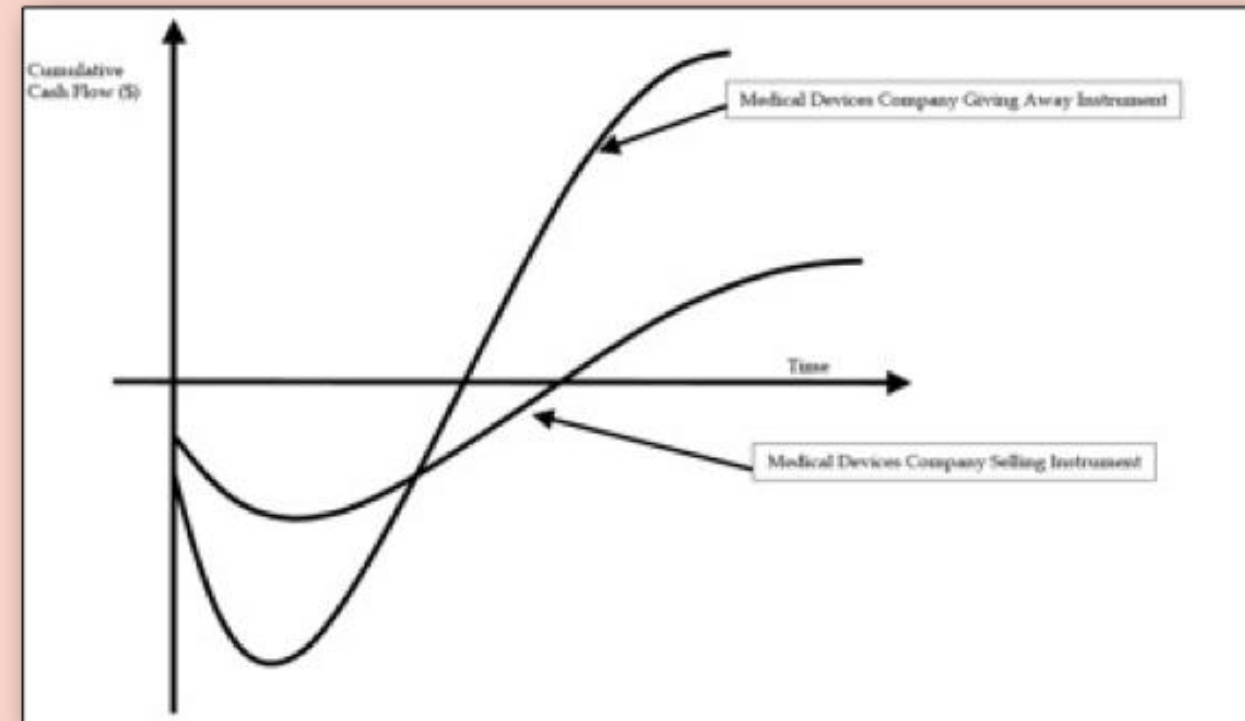
- Build and maintain an expensive infrastructure and let users pay for the services you deliver over it
 - French highway network operators
 - Electrabel
 - Belgacom, Telenet...
- Sell equipment at low cost and make money on consumables
 - Printers
- Provide free-of-charge service to a wide audience and make money on linked services offered to third parties (often ads)
 - Gouden Gids
 - Metro
 - Google
- Provide expert services to customers for a fee
 - Legal, audit, IT, private banking, cooking...
- Sell made-to-order PCs direct to end-users
 - Dell
- Often the business model is a no-brainer
 - Horeca, consulting, taxi's (??) ...
- Business model innovation is popular these days...
 - Google, Apple
 - Web x.0 companies
- Sometimes business model innovations fail...
 - Netscape
- Complexity, needed resources and expertise, longevity can vary enormously!

BUSINESS MODEL

DIFFERENT WAYS TO MAKE MONEY: DEVICE CONSUMABLES



- Sale of two interdependent products
 - equipment or instruments,
 - consumables
- You can decide to price the equipment low and rely on sales of consumables
 - Sales of the consumables is dependent upon the installed base
- Examples
 - Printers and ink
 - Medical devices and consumables



BUSINESS MODEL

DIFFERENT WAYS TO MAKE MONEY



- Online auction company; create IT infrastructure that allows people to communicate for a modest fee
- Company takes no part in transactions, has no responsibility for the goods offered at auction, nor for collecting the payments, nor for shipping the goods
- Receives revenues from seller fees
- Pays the cost of building and maintaining the online infrastructure, marketing, product development and general and administrative expenses
- The internet economy
 - Relatively low fixed costs and no variable costs gives the company enormous operating leverage
 - Small number of salaried employees can handle huge and growing volume of business
 - Compare what it takes to run eBay and Colruyt
 - A doubling of transaction volumes (and revenue) can be accommodated with relatively modest extra investments
- Network effects
 - Very strong first mover advantage

BUSINESS MODEL

DIFFERENT WAYS TO MAKE MONEY: EBAY VS. WEBVAN

- Webvan was an **online grocery business**
- Webvan embraced a total customer satisfaction model with a **30 minute delivery window**.
- Webvan invested **\$1 billion** in **warehouses**, bought a **fleet of delivery trucks**, and at least **115 Herman Miller Aeron chairs** (at over \$800 each).
- At its peak, it offered service in **ten U.S. markets**. The company had originally hoped to expand to 26 cities
- **None of Webvan's senior executives** or investors had any experience in the **supermarket industry**.
- Orders were smaller than the minimal order size to be profitable, so **money was lost per order**
- **'Its business model was profit proof'**
- Webvan went from being a \$1.2 bn company with 4,500 employees to **bankruptcy in under two years**.
- Investors including **Sequoia Capital** (Apple, Google) saw Webvan's stock plummet from \$30 to just six cents in a few months.



BUSINESS MODEL

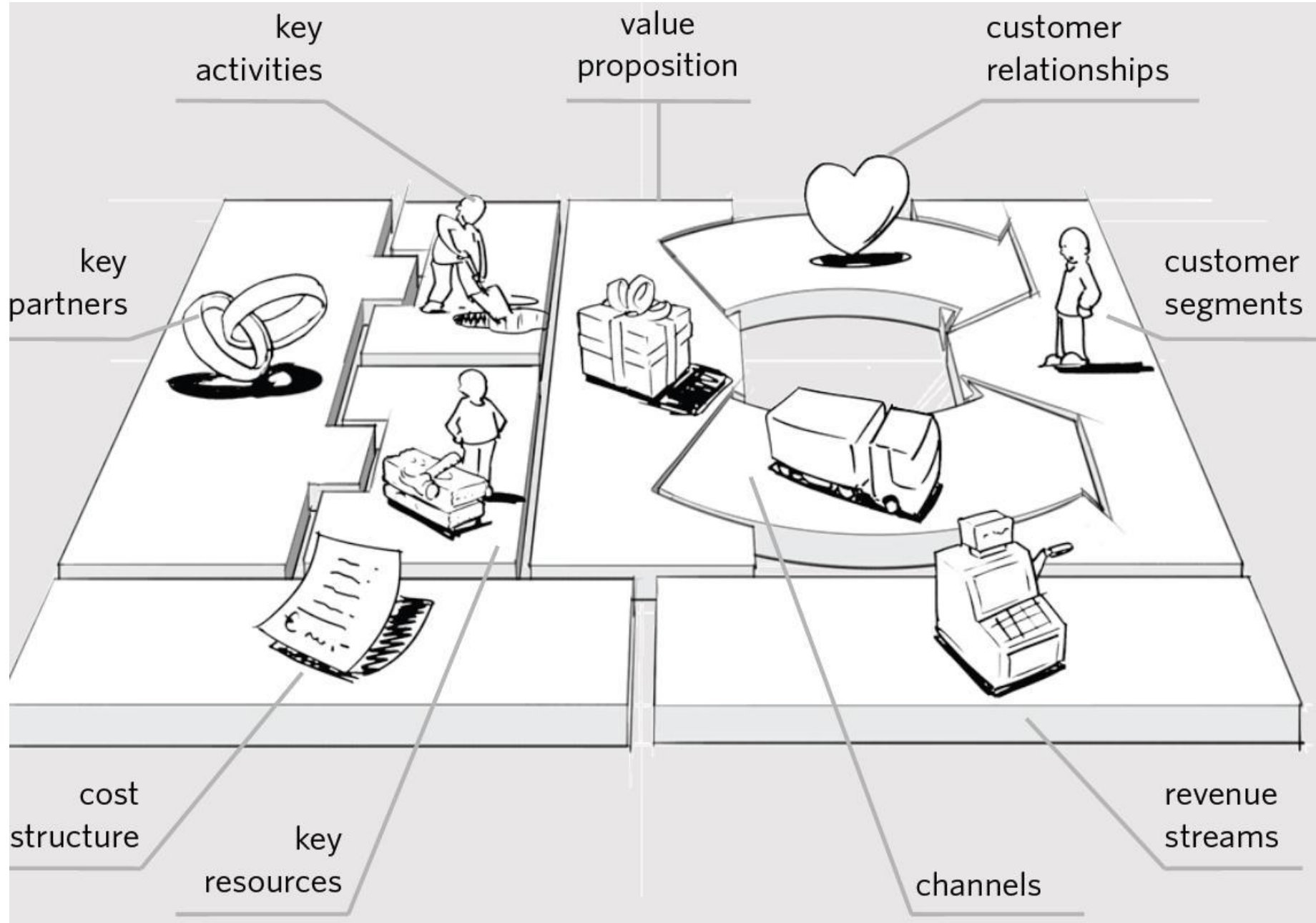
DIFFERENT WAYS TO MAKE MONEY: EBAY VS. WEBVAN



- Huge up-front investments (minimal threshold to run business: distribution centers, logistics...)
- Huge operational costs
- Requires major change in daily habits of customers: requires time and marketing efforts to win them over
- Cost model of Webvan is on at least one point worse than traditional distribution: in the supermarket order picking is done by the customer
- Distribution is very low margin business
- Distributors have huge buying power, receive lower prices
- Business model requires minimal sales value per transaction
- Very high risk: Up-front investment

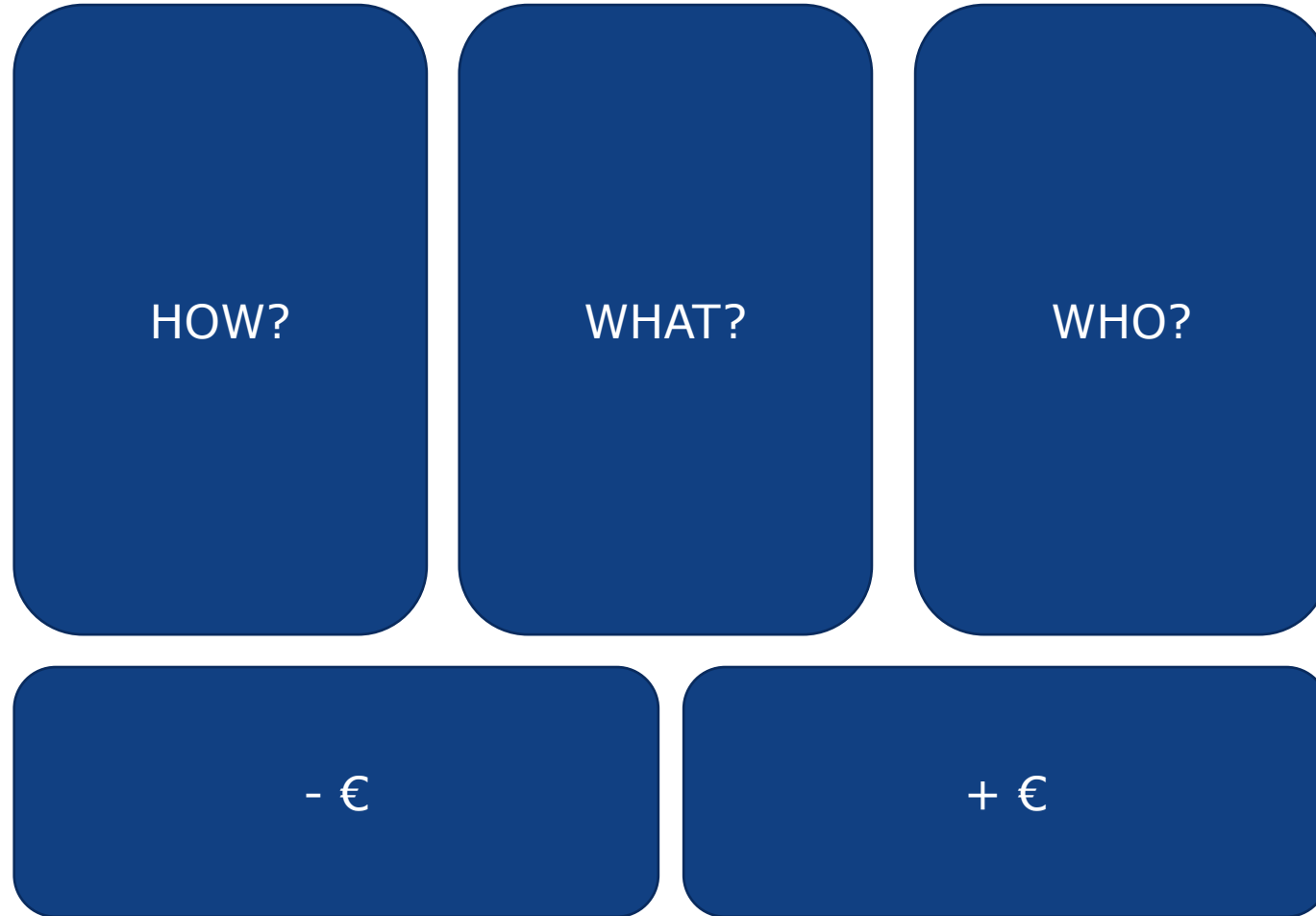
- Very low investments
- Very low operational costs
- Little marketing expenses
- High margins
- Low risks

BUSINESS MODEL CANVAS



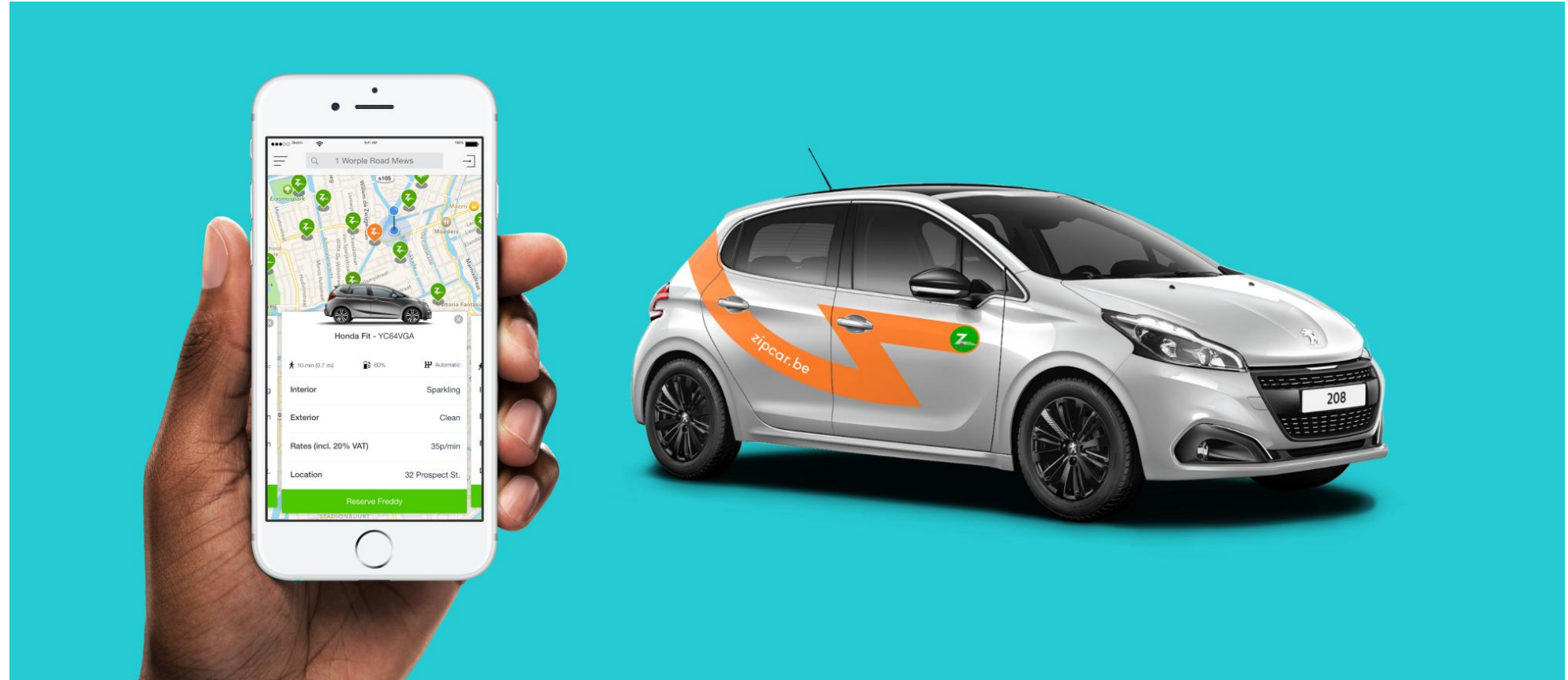
BUSINESS MODEL










BUSINESS MODEL CANVAS



BUSINESS MODEL

BUSINESS MODEL CANVAS EXAMPLE: ZIPCAR



<div>Key Partners</div> <div></div> <div><p>Insurance companies</p><p>Post service</p><p>Parking places</p><p>Online paying platforms (credit cards)</p><p>Legal support</p><p>Marketing support</p><p>Accounting support</p><p>Gas stations</p><p>Garage</p><p>University Campuses</p><p>Airports</p><p>Network providers</p><p>Unlock technology providers</p></div>	<div><div>Key Activities</div><div></div><div><p>Development & support of online platform (website, applications for Android and iOS etc.)</p><p>Cars maintenance</p><p>Logistics/scheduling</p><p>Help center (online, phone)</p></div></div> <div><div>Key Resources</div><div></div><div><p>Car fleet</p><p>Office facilities</p><p>Human resources</p><p>Parking places</p><p>Location-specific wireless technologies, GPS</p><p>Unlock technology</p><p>Fuel card, Zipcard</p></div></div>	<div>Value Propositions</div> <div></div> <div><p>On-demand access to drive cars by the hour or the day in cities, airports, and campuses around the globe</p><p>Company cars on-demand</p></div>	<div>Customer Relationships</div> <div></div> <div><p>Self-service online system (website, app)</p><p>Help service 24/7</p><p>FAQ</p><p>Promotional activities</p><p>Facebook, Twitter, Instagram, Youtube, LinkedIn</p></div> <div><div>Channels</div><div></div><div><p>Cars points</p><p>Website</p><p>Application Android & iOS</p><p>Sales persons</p></div></div>	<div>Customer Segments</div> <div></div> <div><p>Urban commuters: go to the airport, from home to work, afterwork drink</p><p>Short trips</p><p>Long trips</p><p>Day trips</p><p>Universities (users are students, faculty staff – private use, personal payment)</p><p>Companies (users are employees of these companies – separate business and private trips)</p><p>European vs US markets</p></div>
<div>Cost Structure</div> <div></div> <div><p>Fixed costs: cars, parking, insurance, depreciation, human resources (salary..), call center/help center, website & app development</p><p>Variable costs: fuel, car maintenance, transaction costs for payments, marketing, website & app maintenance</p></div>		<div>Revenue Streams</div> <div></div> <div><p>One time registration fee 19€</p><p>All in rate (parking, fuel, insurance, 100 km): 0,25€/minute, 11€/hour, 69€/day (24h)</p><p>Extra 0,16€ fee per km after 100km, 50€ late fee</p><p>Monthly or annual subscription fee (in some countries)</p><p>Damage fee 750€</p><p>Administrative costs (in case of a fine, damage)</p></div>		

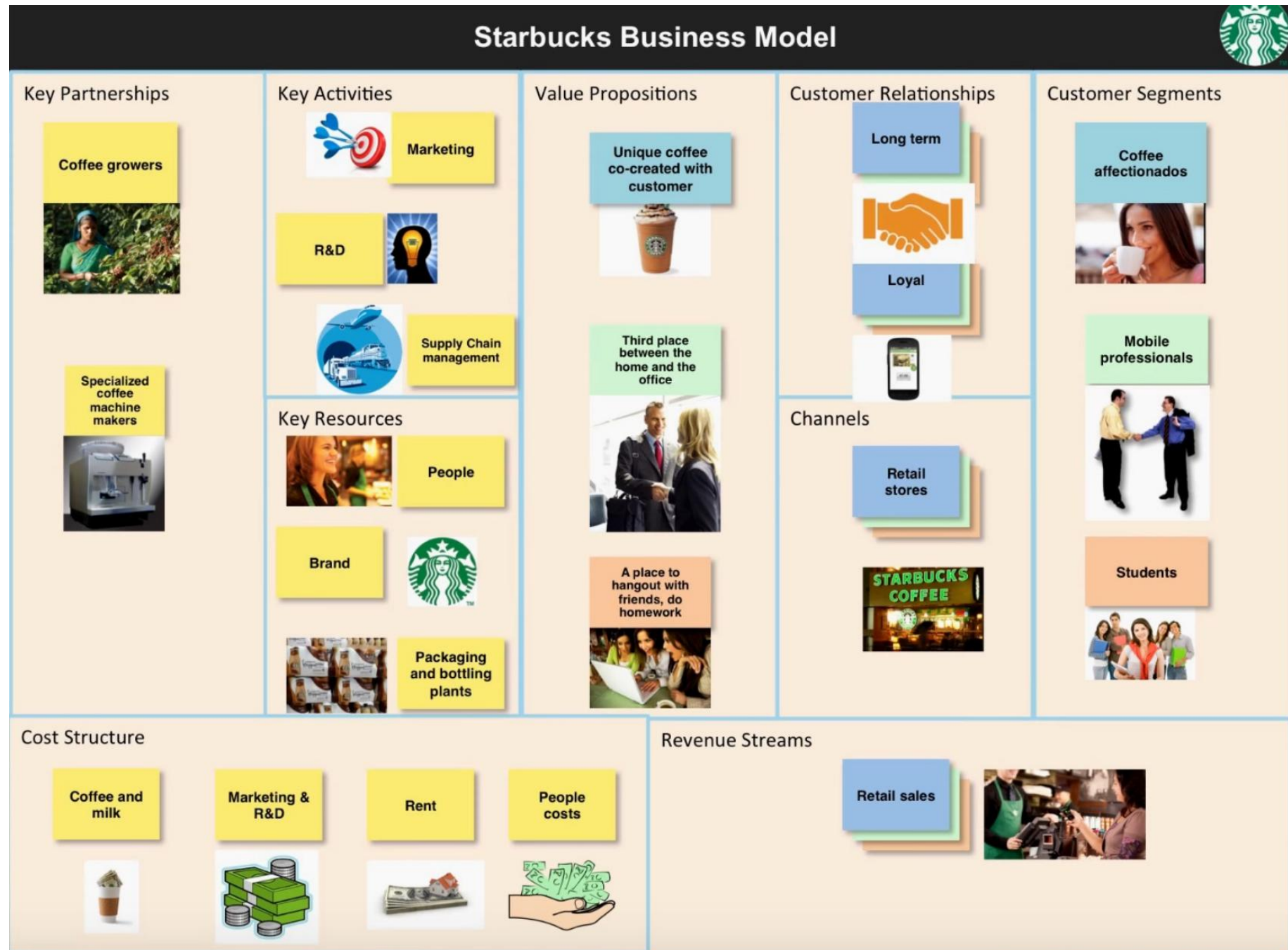
BUSINESS MODEL

BUSINESS
MODEL
CANVAS
EXAMPLE:
STARBUCK



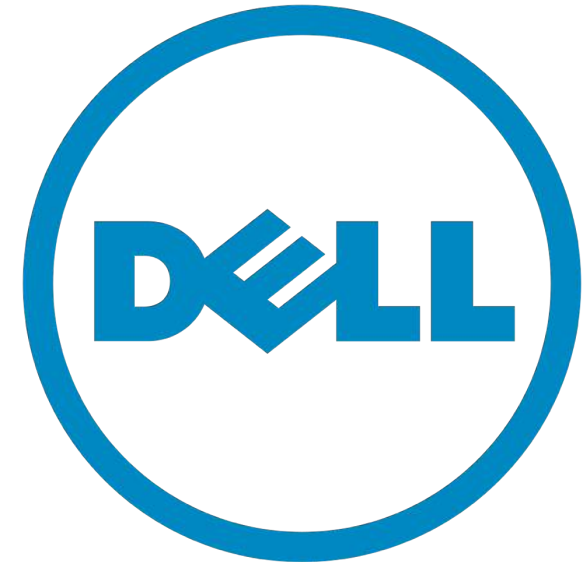
BUSINESS MODEL

BUSINESS MODEL INNOVATION



**BUSINESS
MODEL**

**BUSINESS
MODEL
INNOVATION**



Remember these examples?

IS IT AN ATTRACTIVE MARKET?

- Project = new product, new service (in startup or established company).
- You always need to make an overall assessment of a project, and often you have to choose between options and scenario's

WHAT IS THE PROJECT?

- **Criteria** you should include in your assessment

- Financials (see entrepreneurial finance)
 - *Capital needs*
 - *Potential return*
- Strengths of project
 - *Unique competitive position?*
 - *Soundness of overall project*
- Time-to-market
 - *Short term horizon or long shot?*
- Project complexity
- Validation stage of project
- Competitive position
- ...

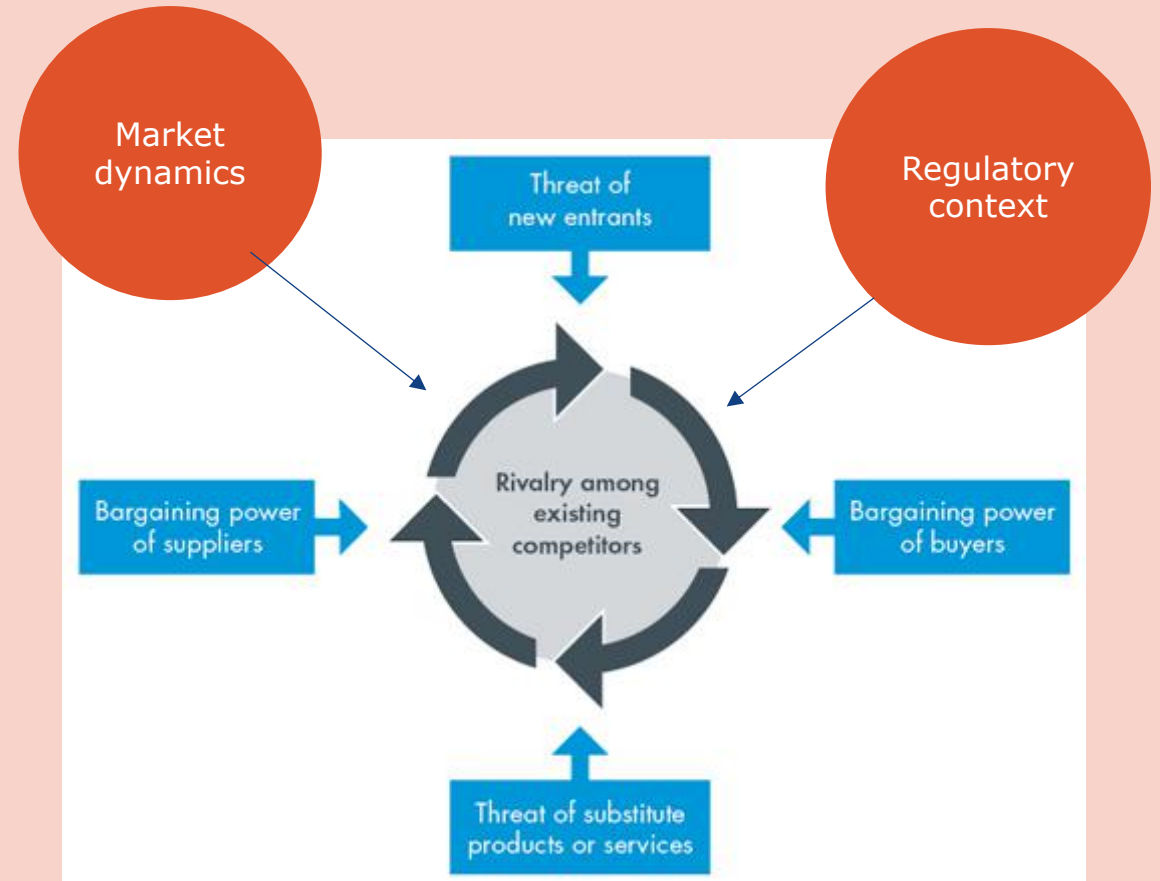
IS IT AN ATTRACTIVE MARKET?

PORTER'S FIVE FORCES



MARKET

- Some markets are more attractive than others
- Main elements in Porter's 5 Forces:
 - Rivalry: who are your competitors?
 - Barriers to entry: is the market easy to enter for newcomers?
 - Threat of substitutes: do alternative ways of responding to customer need exist?
 - The number of players in the supply chain
 - Are you dependent on a limited number of suppliers?
 - Are you dependent on a limited number of customers?
 - Few customers / suppliers = weaker bargaining position
- Some elements I would add
 - Market dynamics
 - Market growth? Stage on ILC?
 - Regulatory context
 - Government related aspects



Porter's five forces (1979) + our additions

“

Using Porter's five forces
model: is the professional
photography industry an
interesting industry?

”



IS IT AN ATTRACTIVE MARKET?

PORTER'S FIVE FORCES: EXAMPLE PHOTOGRAPHY



MARKET



- Photographer's market in 2010: lousy!
 - Direct competition: lots of competitors, easy entry, attractive job
 - Substitute products: journalists that take the photographs themselves, image banks (+ amateur photographers for weddings)
 - Few and +/- shrinking customers (press)
- Versus photocopier market in 1960's: great! (for Xerox...)
 - Huge need , no substitute
 - No competitors thanks to patent
 - Lots of customers, no key suppliers

IS IT AN ATTRACTIVE MARKET?

PESTEL ANALYSIS FACTORS



MARKET

P	E	S	T	E	L
<ul style="list-style-type: none">- Government policy- Political stability- Corruption- Foreign trade policy- Tax policy- Labour law- Trade restrictions	<ul style="list-style-type: none">- Economic growth- Exchange rates- Interest rates- Inflation rates- Disposable income- Unemployment rates	<ul style="list-style-type: none">- Population growth rate- Age distribution- Career attitudes- Safety emphasis- Health consciousness- Lifestyle attitudes- Cultural barriers	<ul style="list-style-type: none">- Technology incentives- Level of innovation- Automation- R&D activity- Technological change- Technological awareness	<ul style="list-style-type: none">- Weather- Climate- Environmental policies- Climate change- Pressures from NGO's	<ul style="list-style-type: none">- Discrimination laws- Antitrust laws- Employment laws- Consumer protection laws- Copyright and patent laws- Health and safety laws

PESTEL stands for Political, Economic, Social, Technological, Environmental and Legal factors.

IS IT AN ATTRACTIVE MARKET?

MARKET
METRICS



MARKET



- You will need to do the numbers
 - Market size
 - Market share
 - Price, margins
 - Return on investment
 - This can be extremely hard, but you will get better at it as time goes by
- Market sizes vary enormously
 - Game consoles vs milking robots
 - You can make (a lot of) money in smaller markets too!
- Some early stage investors will look at the long term overall market potential of your project; if this is sufficiently huge they will be interested

ENTREPRENEURIAL
STRATEGY



Entrepreneurial strategy

Core assets

Problem/solution fit

Product/market fit

Perspectives on entrepreneurial strategy

“

If you assume, you make an
ass out of you and me.

”



John Barton

PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

PROJECT COMPLEXITY



- The more novelty and the bigger, the more complex
- Complexity for the firm
 - Market, customers:
 - New? Familiar?
 - Markets, channels, type of customers
 - Sale methods, skills, contacts...
 - Technology
 - How new for the firm?
 - + how far from mass production?
 - Impact on processes within company
 - Is your organization equipped to deal with the project?
 - Complementary assets
 - Do you need new partners? Do you have agreements with them?
 - Team members' experience in domains
 - Do you know the industry?
- Complexity for the customer
 - novelty of offering for customer
 - (behavioral) change for customer
 - dis-benefits to customer
 - These weigh heavily in decision making process
 - + Cost; return on investment, total cost of ownership
- There's nothing wrong with complexity
 - By doing complex things you build competitive advantage
 - But you do have to cope with it
- You need to assess your project's complexity
 - Can you decrease complexity?
 - How will you cope with this complexity?

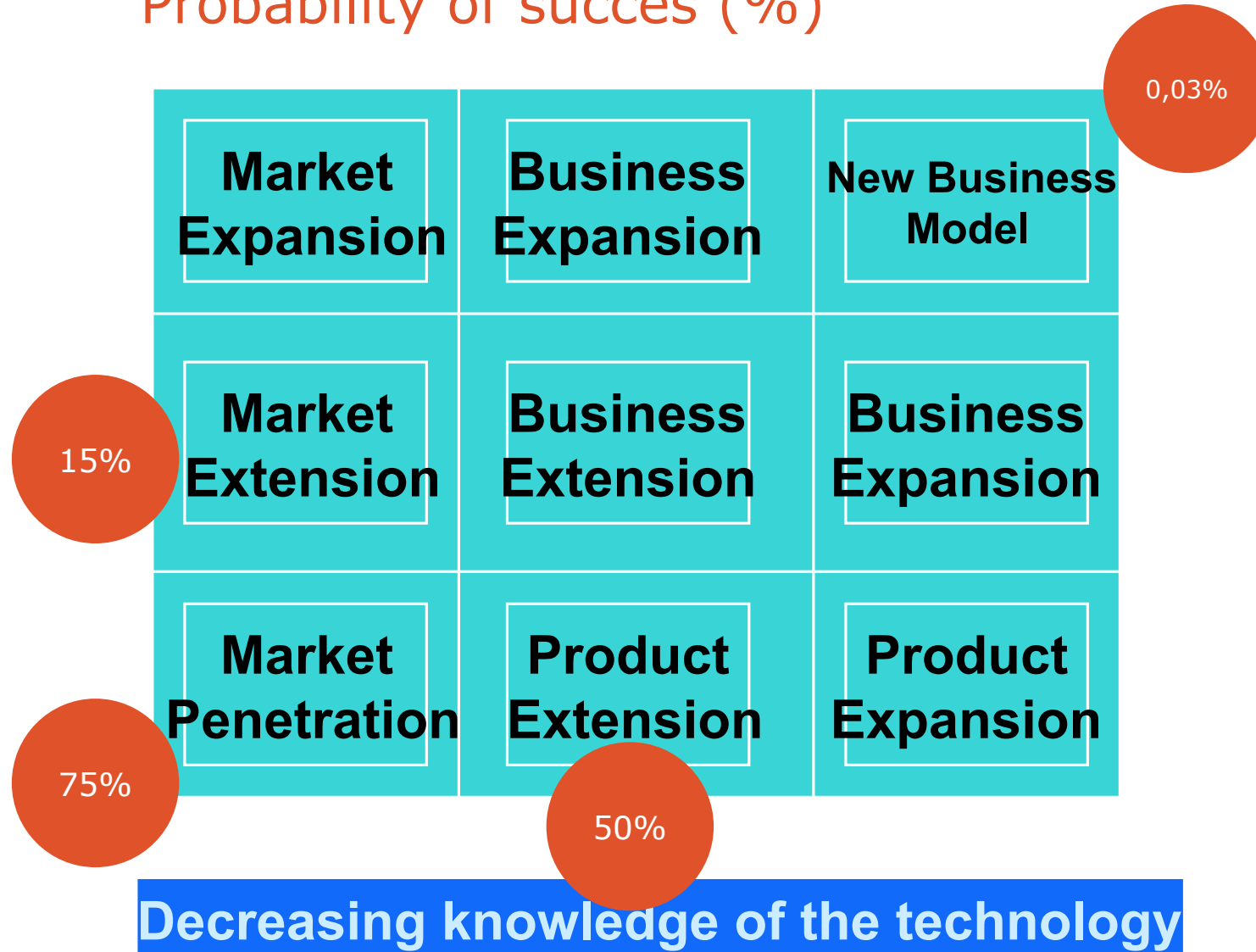
PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

PROJECT
COMPLEXITY



Decreasing knowledge of the market

Probability of succes (%)



PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

PROJECT VALIDATION



- Some dimensions to take along when defining the degree of validation (and therefore of risk) of a project
 - Seed money is essentially destined to move the project up the validation scale
- What do you have today?
- Technology
 - Lab demonstrator
 - Engineering specifications
 - Operational prototype
 - **Value chain in place**
 - 10.000 copies manufactured
- Intellectual property (see TT & IP session)
- Market
 - End-user customers, channel:
 - Letter of intent
 - Test installation
 - Signed customers
- **Operational customers**, re-ordering, referenced
- Market validation through customers
- Installed base, recurring business
- Organization
 - Team composition vs. needs
- Financial
 - Revenue stream
 - **Cash break-even?**
 - **UBER? Amazon? Spotify?**
 - Profitable
- **Project validation is the result of finding a product/market fit.**

PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

STRATEGIES FOR UNCERTAIN MARKETS



- Christensen The Innovator's Dilemma 1997
- **Defining strategies based on narrow predictions is entirely the wrong mindset for an inherently uncertain world**
- We should take a cue from nature and rely less on our ability to make accurate predictions and more on the power of evolution
- Businesses should not have a singular focussed strategies but instead **cultivate and manage populations of multiple strategies** that evolve over time
- Parallelism: the more places you are simultaneously exploring the more likely you are to find a higher peak in your fitness landscape
- Eric D. Beinhocker Sloan Management Review Spring, 1999:
- Not only are the **market applications for disruptive technologies** unknown at the time of their development, they **are unknowable**
 - Market research is not an option for disruptive innovations
- Strategies and plans should be **plans for learning and discovery** rather than plans for execution
- **The risk: spreading too thin**
 - As with everything: local circumstances (company, industry) determine the right balance
 - Elk voordeel heb z'n nadeel

PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

STRATEGIES FOR UNCERTAIN MARKETS: EXAMPLE HP

- Introduced in 1992
 - 1.3 inch form factor
 - Capacity of 20 MB
- Massive investment on forecasted market: PDA's
 - Product optimized for this use
- Turned out the market didn't materialize
- Other markets (GPS, gaming) did, but with different requirements
 - Cost vs. sturdiness
- Product was insufficiently flexible to adapt
- HP patience had dried up, project was halted





- 1988 Operating Systems landscape
 - Overwhelming market share: DOS 4.0
 - Sexiest product: Apple Macintosh
 - Range of (mainframe) vendors with proprietary OS: IBM, DEC, Siemens...
 - Major developments in PC/Workstation OS market
 - *IBM: working on OS/2 (together with Microsoft)*
 - *Microsoft: working on Windows 2.0*
 - *Sun+AT&T+Xerox: Unix Open Look*
 - *Hewlett_packard, Digital Equipment Corporation, Apollo, Siemens Nixdorf: Open Systems Foundation (Unix)*
- 1988 Microsoft Strategy
 - Continue to develop DOS
 - Become the largest software developer for Apple Macintosh: Word, Excel
 - Develop Windows 1->2->3->95...

- Co-develop OS/2 with IBM
- Buy SCO Unix, the largest provider of PC-based Unix Operating Systems
- Microsoft...
 - Couldn't know what would happen
 - Did have its preferred outcome: Windows domination
 - But had 'irons in the fire' for most other outcomes
 - *Macintosh -> applications*
 - *OS/2: co-ownership; Unix: a major player*
 - And in parallel was building those core assets that were needed in any outcome
 - *Graphical user interfaces*
 - *Object-oriented programming*

PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

STRATEGIES FOR UNCERTAIN MARKETS: EXAMPLE MS



Bill Gates on the Macintosh (1984)

ITERATION



- Strategies are never cast in stone
- You must systematically reassess the soundness of the strategy...
- .. But you shouldn't change course at every corner/issue either...
 - Illustration: Source Daniel van Nieuwenhoven

Continuous analysis mode

Examples:

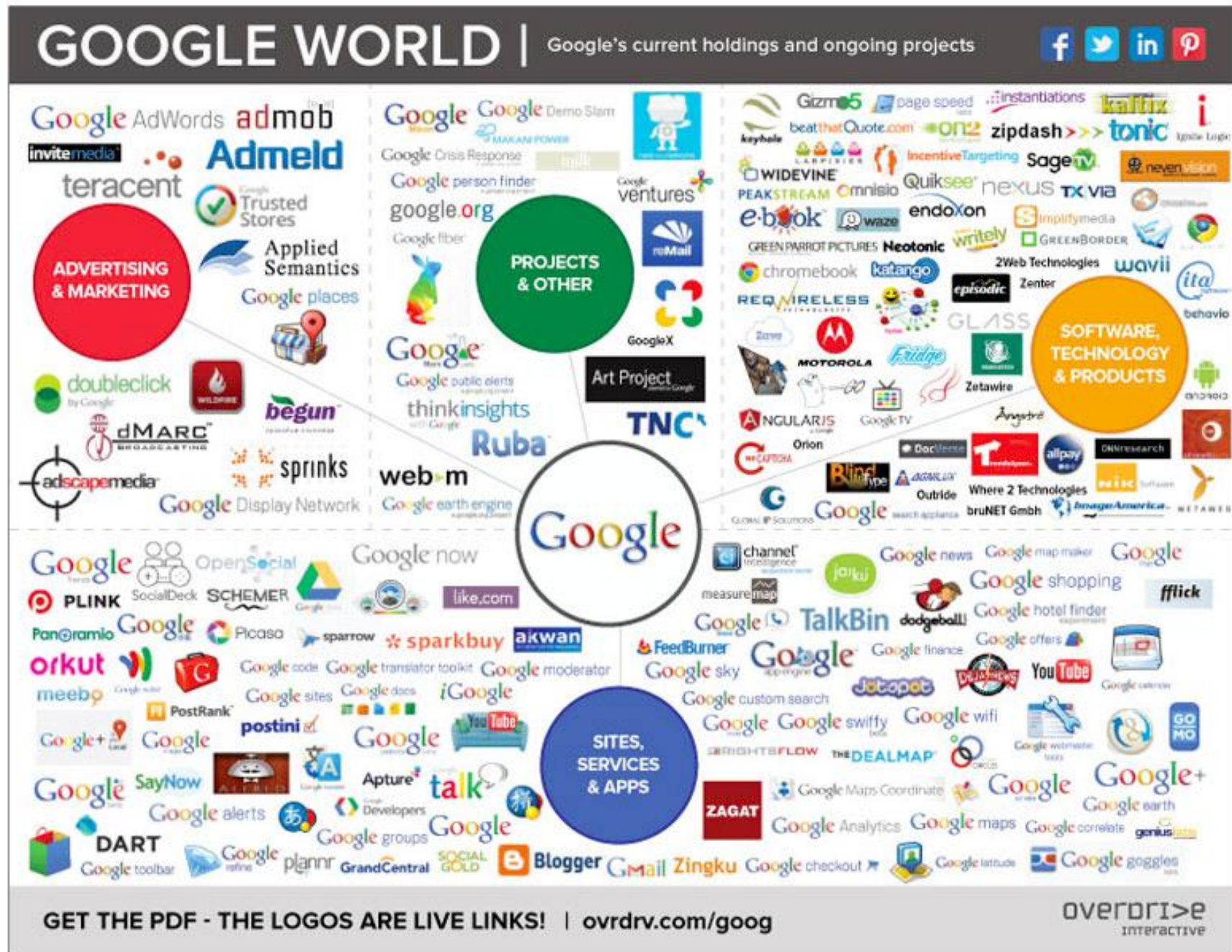
- Why do people want my product?
 - What can be improved?
 - What is better than competition?
- What can kill me?
- What are my weaknesses?
- What will competitors do?
- What will the market do?
- What is the evolution in perception of the technology?
- Where will the vision change?
- Ecosystem forces? Bottlenecks?

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PERSPECTIVES ON ENTREPRENEUR- IAL STRATEGY

ITERATION:
GOOGLE
PROJECTS



STREAMS



- Several **streams and methodologies on how to deal** with core assets, problem/solution fit, and product market fit
 - Causality vs. Effectuation (see introduction session)
 - Blue vs. Red ocean strategy (see intro & this session)
 - New product development methodologies (see new product development session)
 - *Stage-gate*
 - *Design for manufacture, Rapid prototyping, Computer-aided techniques, in-silico simulations*
 - *Agile methodologies*



QUESTIONS?

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