

Engineering Management BMEVITMMB03

Product Management

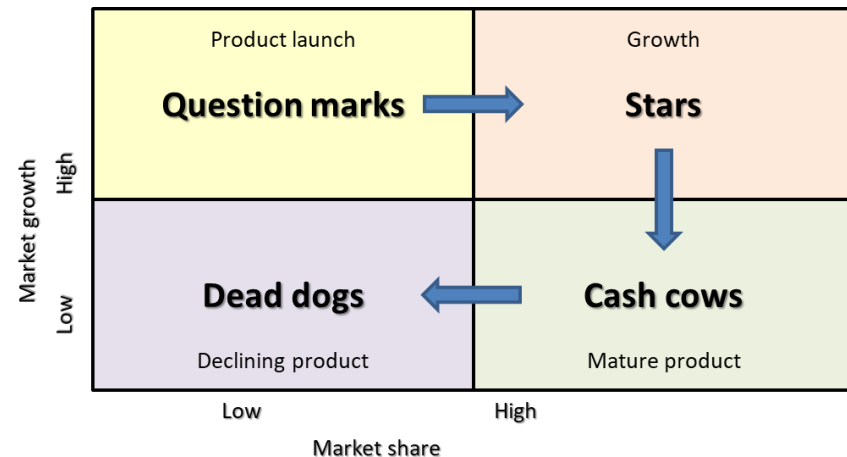
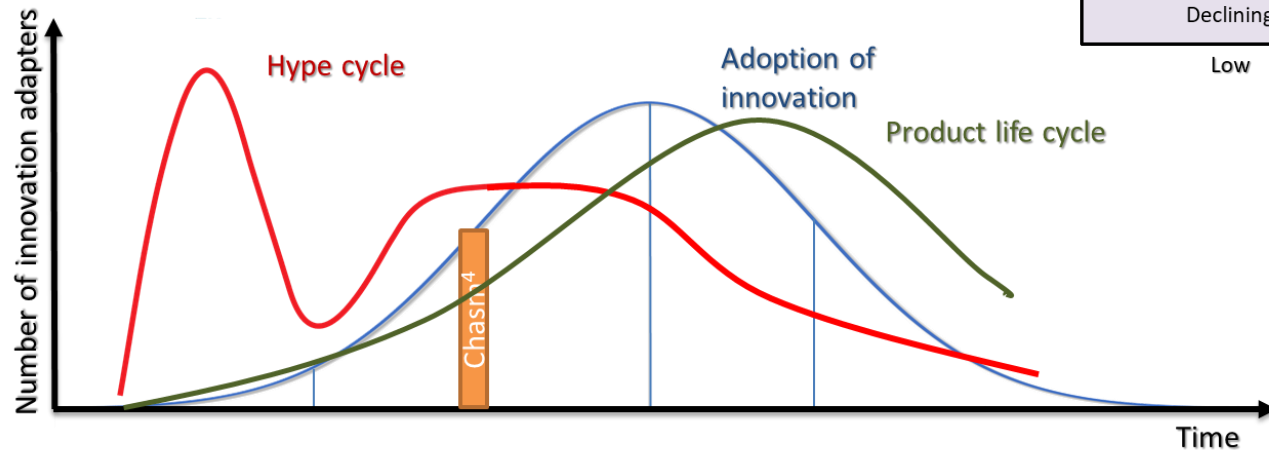
István Gódor, PhD

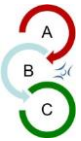
BME Department of Telecommunications and Media Informatics



Main topics 1/3

Adoption of inno, hype cycle, product life cycle, BCG matrix





Main topics 2/3

Steps of product development process

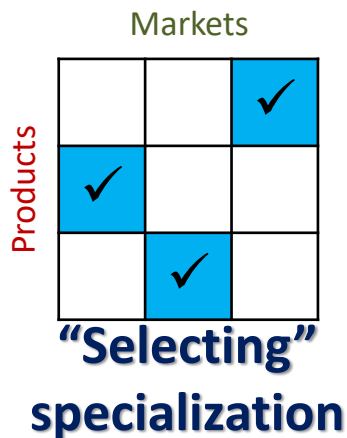
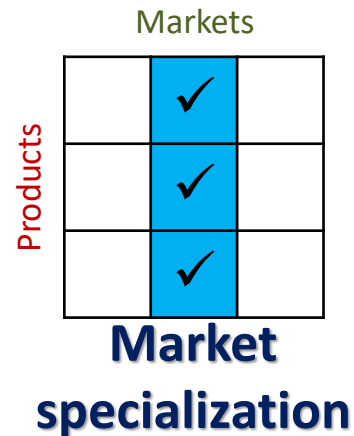
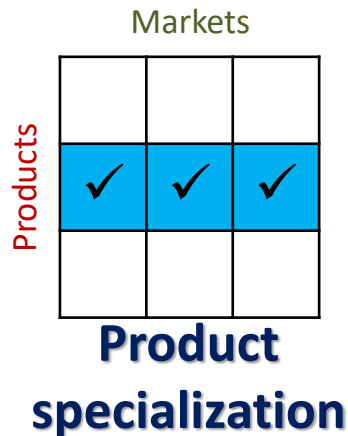
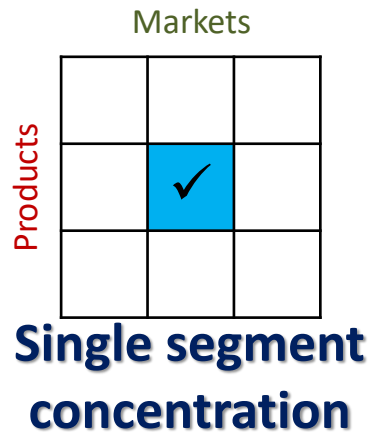
1. Idea management (collecting and selecting ideas)
2. Preparing product proposals (product concepts)
3. Preparing business plan (product description, market segments, price, marketing methods)
4. Realization (product development, cost analysis, market research, price setting)
5. Product launch on the market
6. Testing launch effectiveness
7. Product modification (correction, finalization)

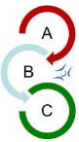
In each step business estimations will be taken into account



Main topics 3/3

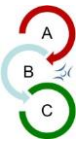
Selection of market targets





Content

- Adoption of innovations
- Hype cycle – technology life cycle
- The product
- Product development
- Product life cycle & phases
- Market segmentation & sales / pricing
- Disruptive areas



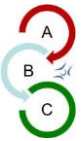
ADOPTION OF INNOVATIONS

Adoption process of innovations

“Simple” model of innovation adoption

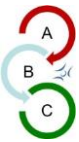
Complex model of innovation adoption

Economics of innovation/technology adoption

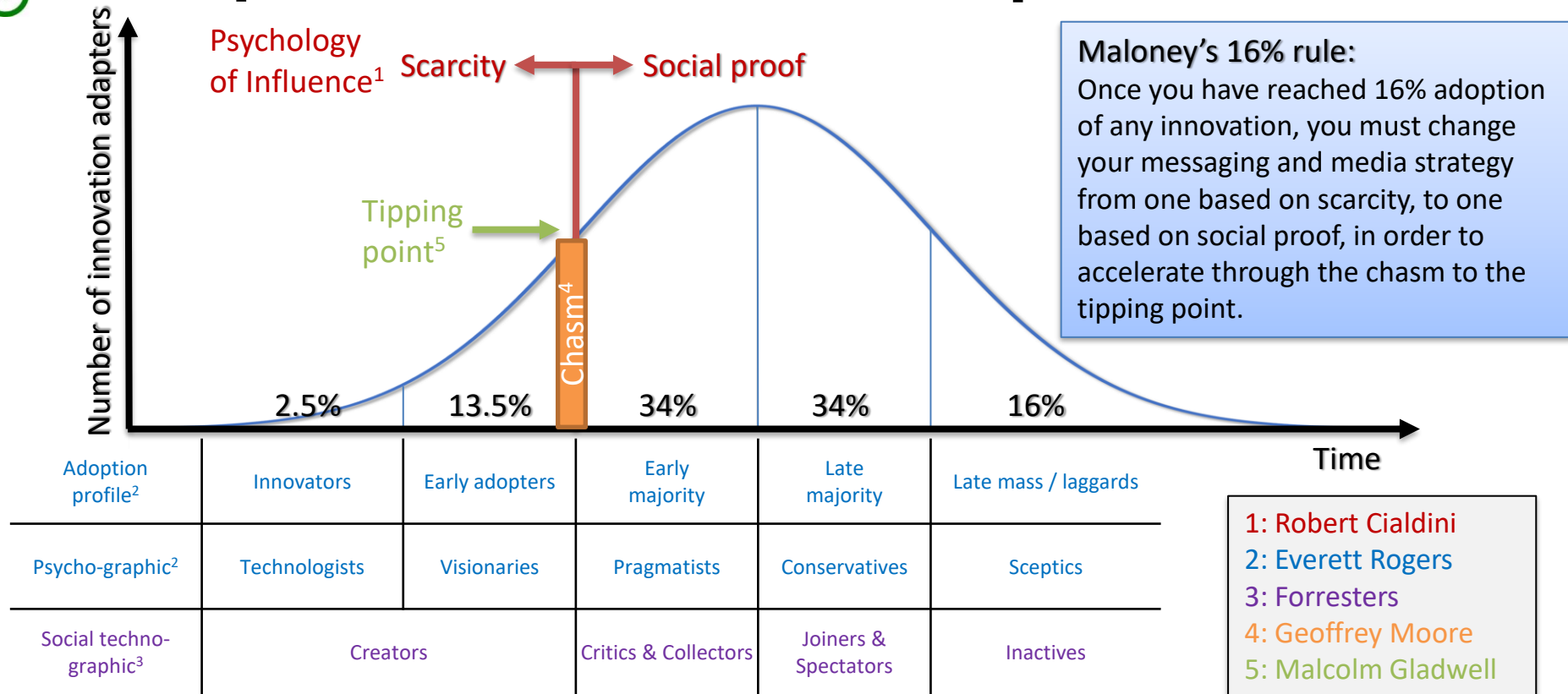


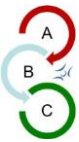
Adoption process of innovations

1. **Awareness**: the customer becomes aware of the existence of the innovation without having information about it
2. **Interest**: the customer feels incentive to get knowledge with respect to the innovation
3. **Evaluation**: the customer makes decision to try the innovation or not
4. **Trial**: the customer tries the innovation; in such a way it is possible to refine what value the innovation represents for him/her
5. **Adoption**: the customer decides to use the innovation regularly



“Simple” model of inno adaption 1/8

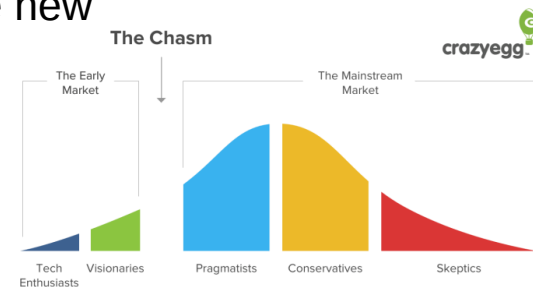




“Simple” model of inno adoption 2/8

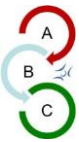
Overcome the Chasm

- The Early Majority (Pragmatists) **does not talk** to the Early Adopters (Visionaries), hence there is a huge Chasm
 - The Early Adopters are buying a **revolutionary change agent**
 - Expect a clear **discontinuity** between the old and the new
 - Expect clear **strategic advantages**
 - Tolerate **bugs** and **glitches**
 - The Early Majority is buying **evolutionary productivity improvement**
 - Want to **minimize the discontinuity** with the old way
 - Want innovations to **enhance established business processes**
 - Expect a more of less **bug free** product



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>

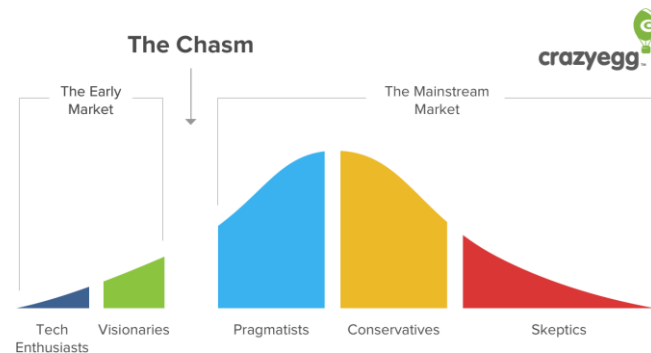


“Simple” model of inno adoption 3/8

Stage 1 – Innovators – Technology Enthusiasts

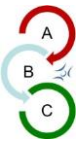
Key role: gatekeeper to the Early Adopters

- Primary motivation
 - Learn about new **technologies for their own sake**
- Key characteristics
 - Strong aptitude for **technical information**
 - Like to **alpha test** new products
 - Can **ignore** any **missing elements**
 - Do whatever they can to **help**
- Challenges
 - Want unrestricted **access** to top technical people
 - Want **no-profit pricing** (preferably free)



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>

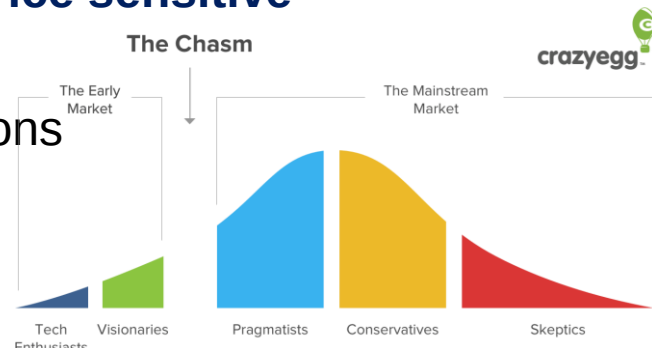


“Simple” model of inno adoption 4/8

Stage 2 – Early Adopters – Visionaries

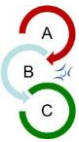
Key role: fund the development of the early market

- Primary motivation
 - Gain dramatic **competitive advantage** via **revolutionary breakthrough**
- Key characteristics
 - Perceive order-of-magnitude gains – so **not price sensitive**
 - Great imaginations for **strategic applications**
 - Attracted by **high-risk, high-reward** propositions
 - Will help **supply** the **missing elements**
- Challenges
 - Want rapid **time-to-market**
 - Demand **high degree of customization** and support



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>

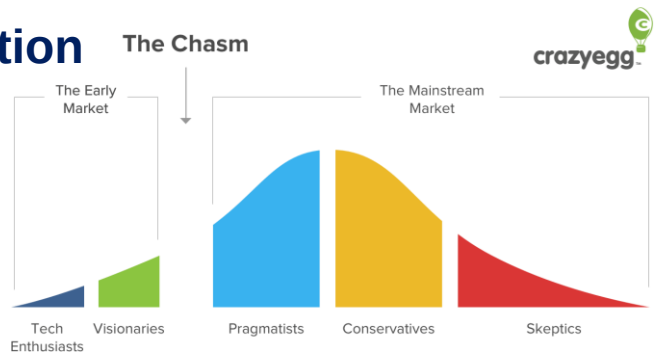


“Simple” model of inno adoption 5/8

Stage 3 – Early Majority – Pragmatists

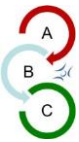
Key role: bulwark of the mainstream market

- Primary motivation
 - Gain **sustainable productivity improvements** via **evolutionary** change
- Key characteristics
 - Clever **managers of mission-critical application**
 - Understand **real-world** issues and **tradeoffs**
 - Focus on **proven applications**
 - Like to go with the **market leader**
- Challenges
 - Insist on good **references from trusted colleagues**
 - Want to see the solution in production at the **reference site**



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>

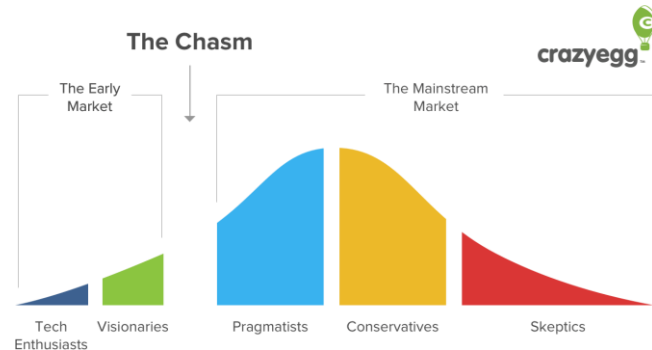


“Simple” model of inno adoption 6/8

Stage 4 – Late Majority – Conservatives

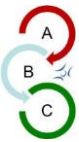
Key role: extend product life cycles

- Primary motivation
 - Just **stay even** with the competition
 - Avoid **competitive disadvantage**
- Key characteristics
 - Better with **people** than technology
 - **Risk averse** and **price-sensitive**
 - Highly reliant on a single, **trusted advisor**
- Challenges
 - Need **completely pre-assembled** solutions
 - Would benefit from value-added services but **do not want to pay** for them



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>

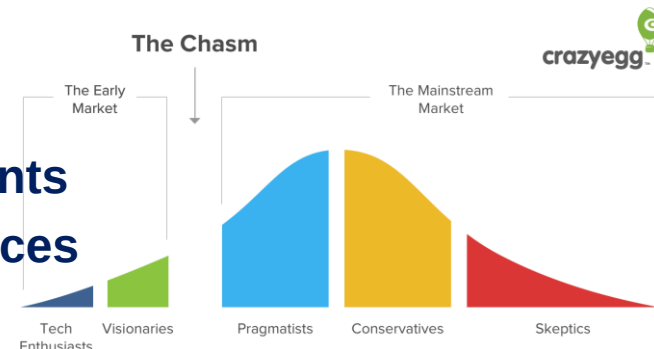


“Simple” model of inno adoption 7/8

Stage 5 – Late mass / Laggards – Sceptics

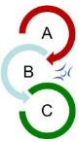
- Primary motivation
 - Maintain **status-quo**
- Key characteristics
 - Good at **debunking marketing hype**
 - **Disbelieve** productivity-improvement **arguments**
 - Believe in the **law of unintended consequences**
 - Like taking a **contrarian** position
 - Seek to **block purchases** of new technology
- Challenges
 - Not a **customer** and can be **formidable opposition** to early adoption

Key role: retard the development of high-tech markets



Source:

<https://www.crazyegg.com/blog/product-adoption-to-transform-marketing/>



“Simple” model of inno adoption 8/8

Characteristics from Innovators to Laggards

Innovators

Visionaries and Enthusiasts

- Dream realizers
- Drive change
- Aren't afraid to fail
- Explore in iterations
- High tolerance for risk, uncertainty and ambiguity
- Adventurers
- Change initiators
- Internally motivated to change
- Respected by EAs; doubted by the mass

Early Adopters

- Evangelists
- Embrace change
- Self-efficacy
- Like to be first to try, use, engage, buy
- Try out new ideas in careful way
- Inspired by the new
- Like integrating new ideas in useful ways
- Influencers – like to convey ideas
- Respected by majority

Early Majority

Mainstream Adopters

- Pragmatists
- Accept change (sooner than LM)
- Deliberate
- Adopt if practical – weigh out pros & cons; think it out
- Go along; seldom lead
- Helps it gain mass appeal
- Wait until it has been successful in practice

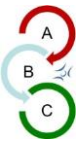
Late Majority

- A bit skeptics
- Accept change (later than EM)
- Adopt after proven
- Often adopt out of necessity, not choice
- Goes along with peers
- Like to know rules
- Creatures of habit
- Jumps in when sees “everybody” is doing it

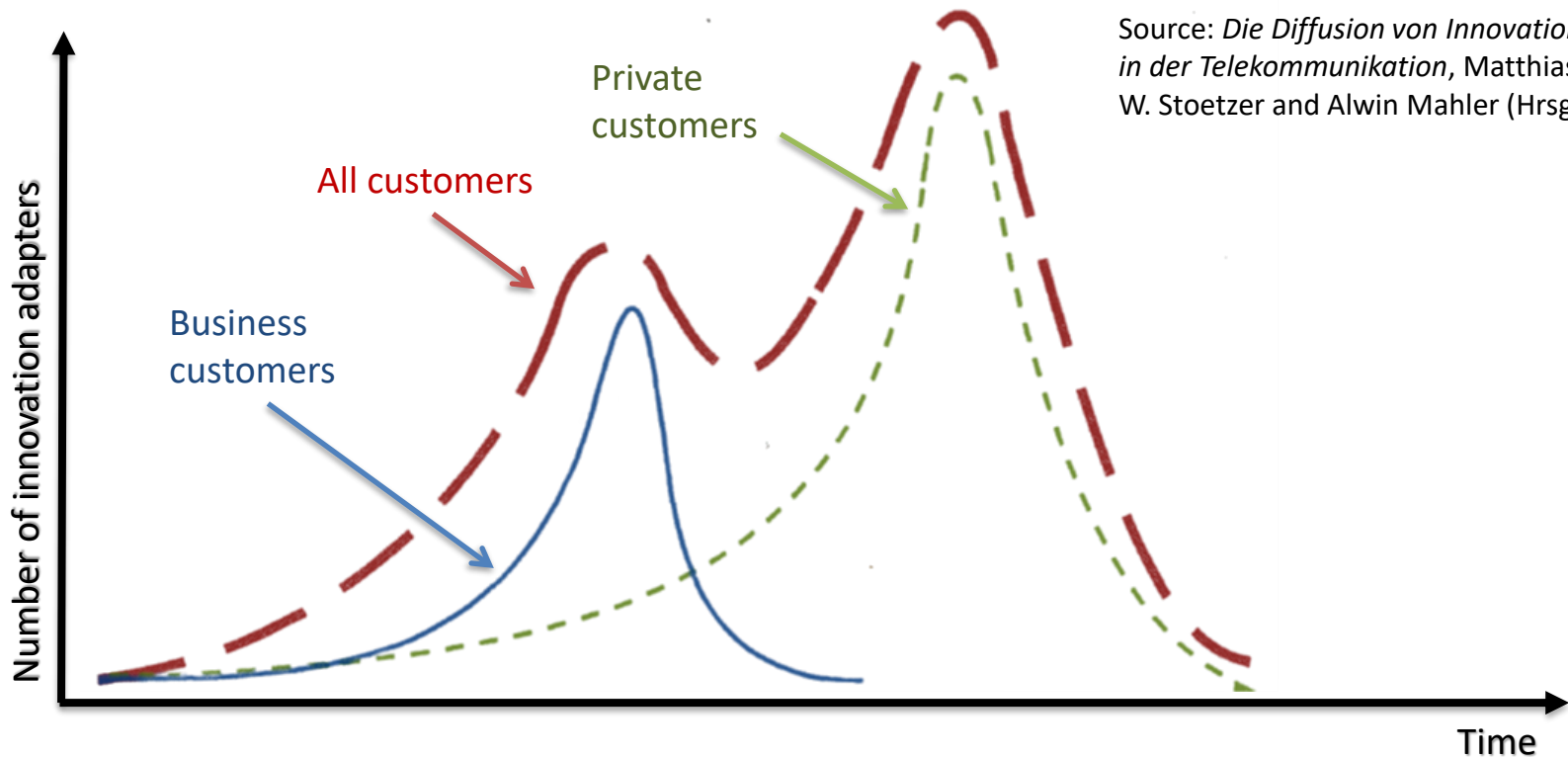
Laggards

Resisters

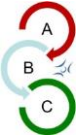
- Change averse
- Value tradition
- Not leaders
- Suspicious of new innovations
- Often wait until forced to adopt
- Feel threatened or very uncomfortable by uncertainty and change
- Not going to buy in to new ideas



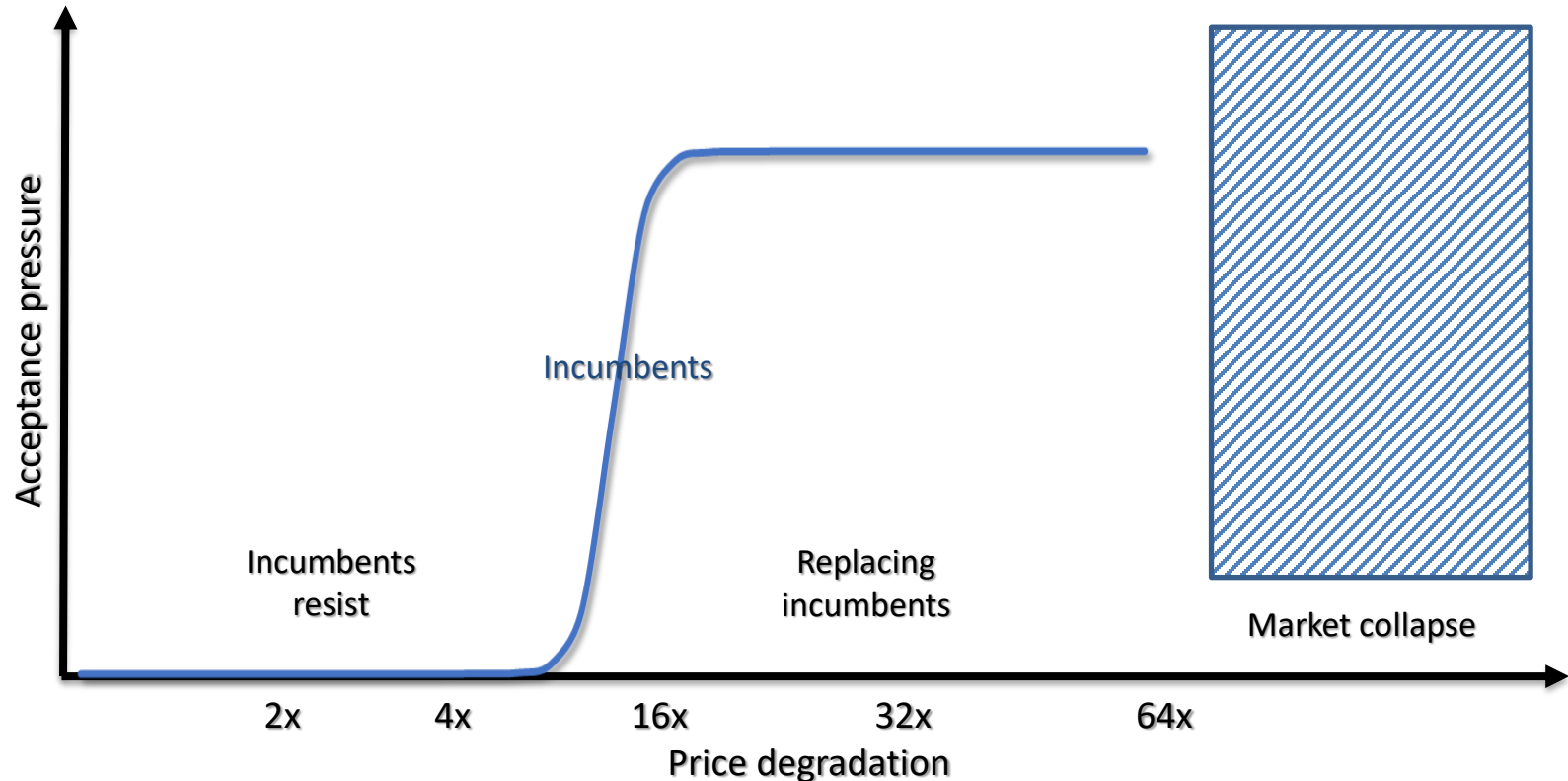
Complex model of adoption of innovation

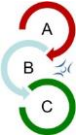


Source: *Die Diffusion von Innovationen in der Telekommunikation*, Matthias-W. Stoetzer and Alwin Mahler (Hrsg.)

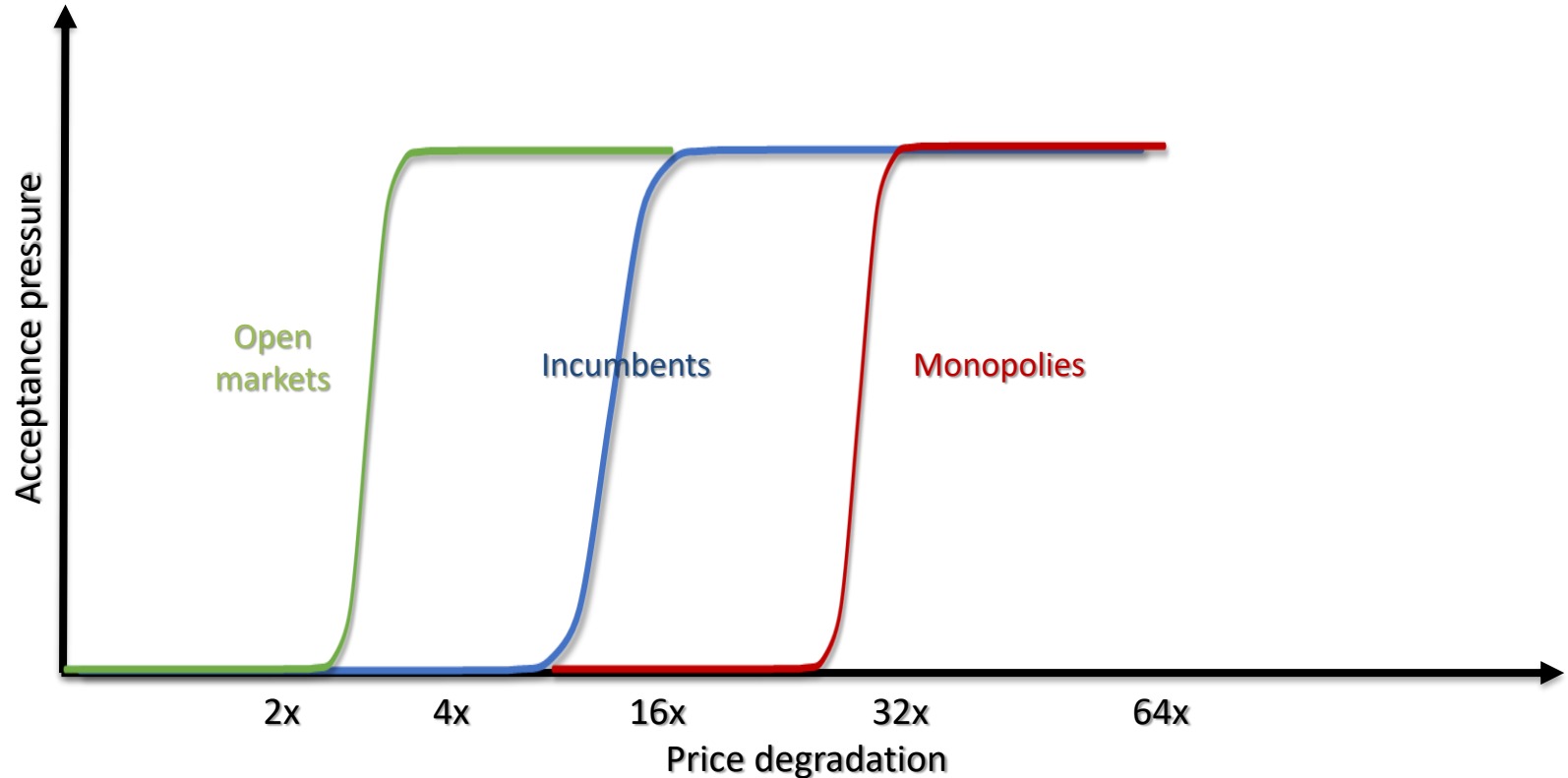


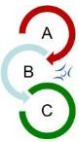
Economics of innovation adoption 1/2





Economics of innovation adoption 2/2





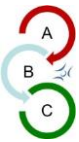
HYPE CYCLE – TECHNOLOGY LIFE CYCLE

Hype cycle – technology life cycle

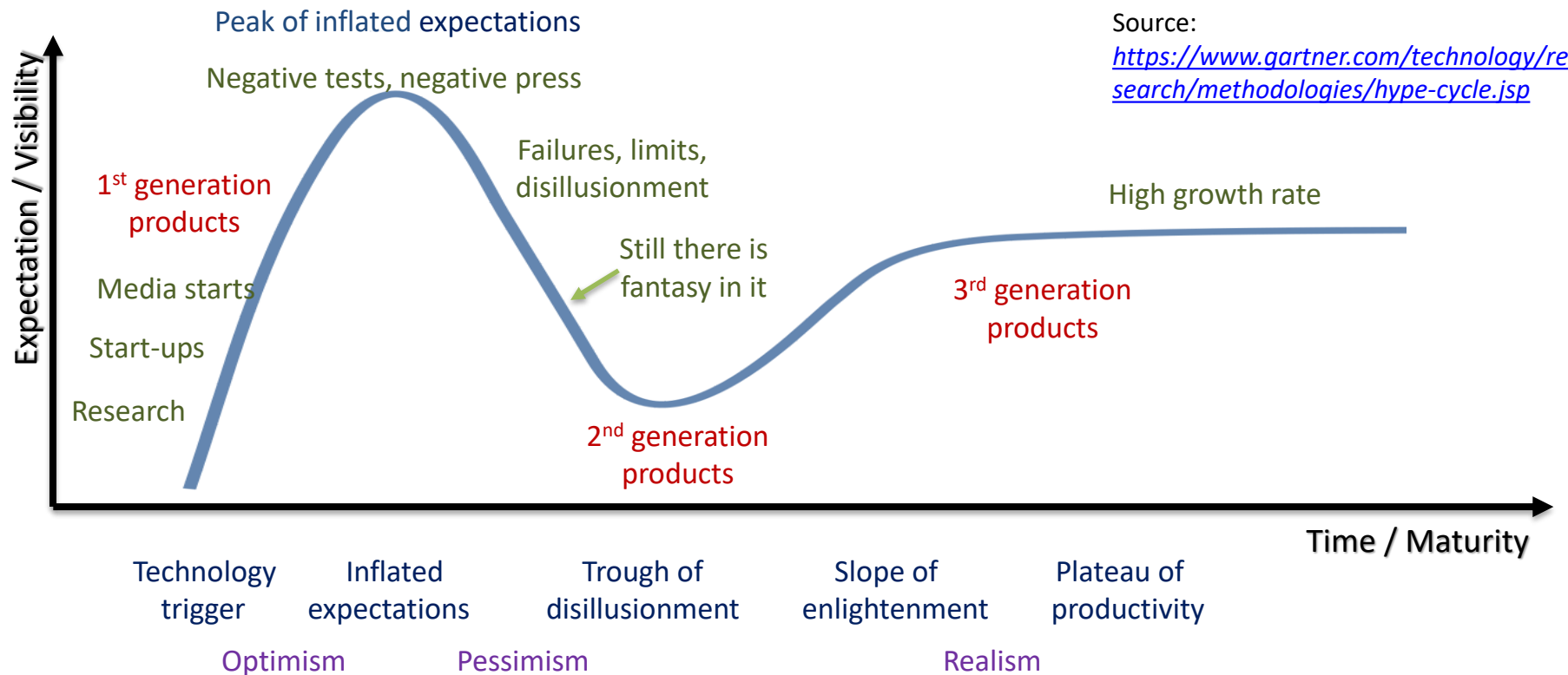
How hype cycle works

Hype cycle and adoption of innovation

Hype cycle for emerging technologies

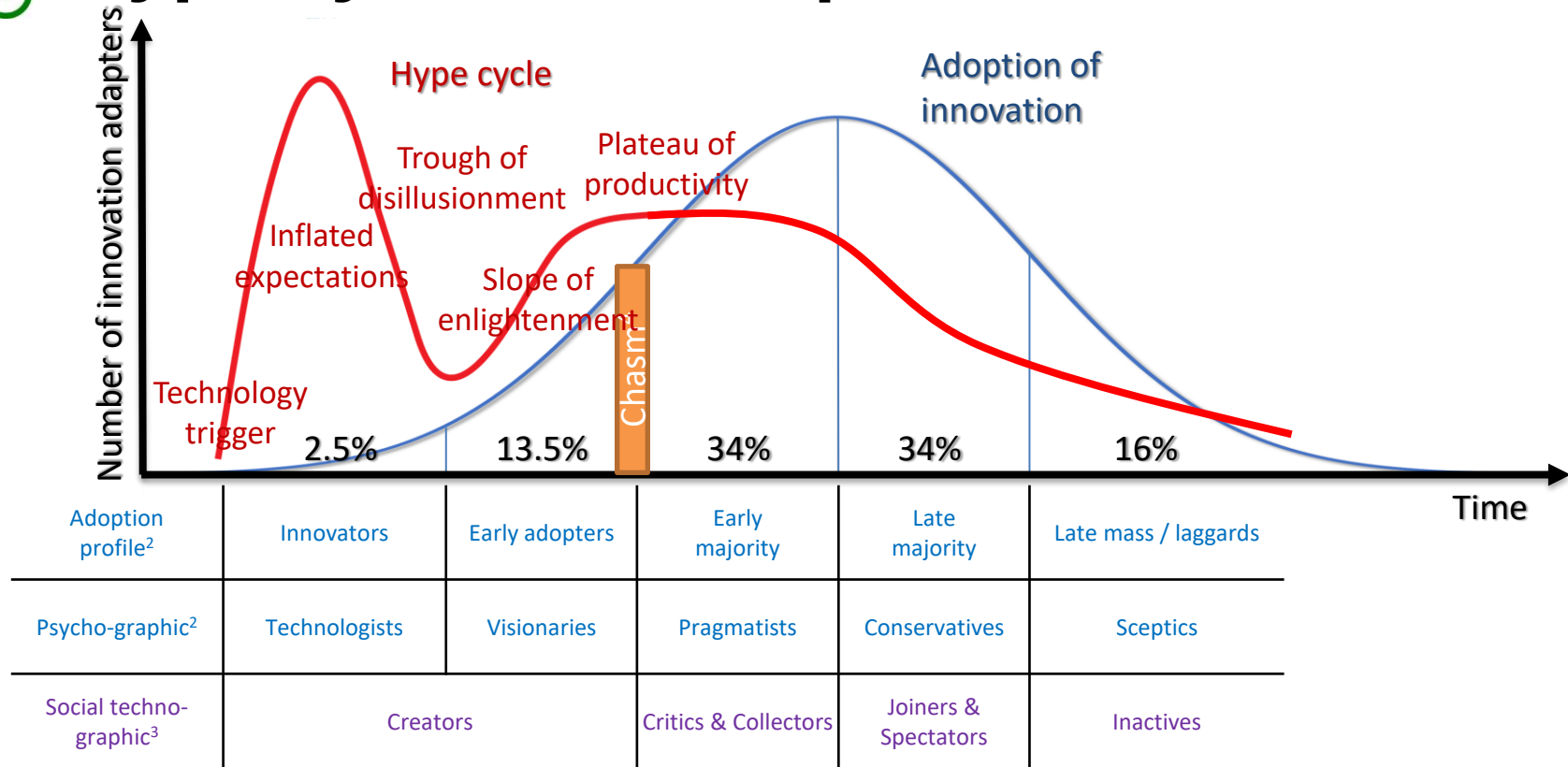


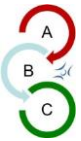
Hype cycle – technology life cycle





Hype cycle and adoption of innovation





How hype cycle works 1/2

Five key phases of a technology's life cycle

Source:

<https://www.gartner.com/technology/research/methodologies/hype-cycle.jsp>

- **Technology Trigger**

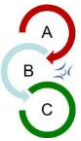
- A potential technology breakthrough kicks things off. Early proof-of-concept stories and media interest trigger significant publicity. Often no usable products exist, and commercial viability is unproven.

- **Peak of Inflated Expectations**

- Early publicity produces several success stories — often accompanied by scores of failures. Some companies take actions; many do not.

- **Trough of Disillusionment**

- Interest wanes as experiments and implementations fail to deliver. Producers of the technology shake out or fail. Investments continue only if the surviving providers improve their products to the satisfaction of early adopters.



How hype cycle works 2/2

Five key phases of a technology's life cycle

Source:

<https://www.gartner.com/technology/research/methodologies/hype-cycle.jsp>

- **Slope of Enlightenment**

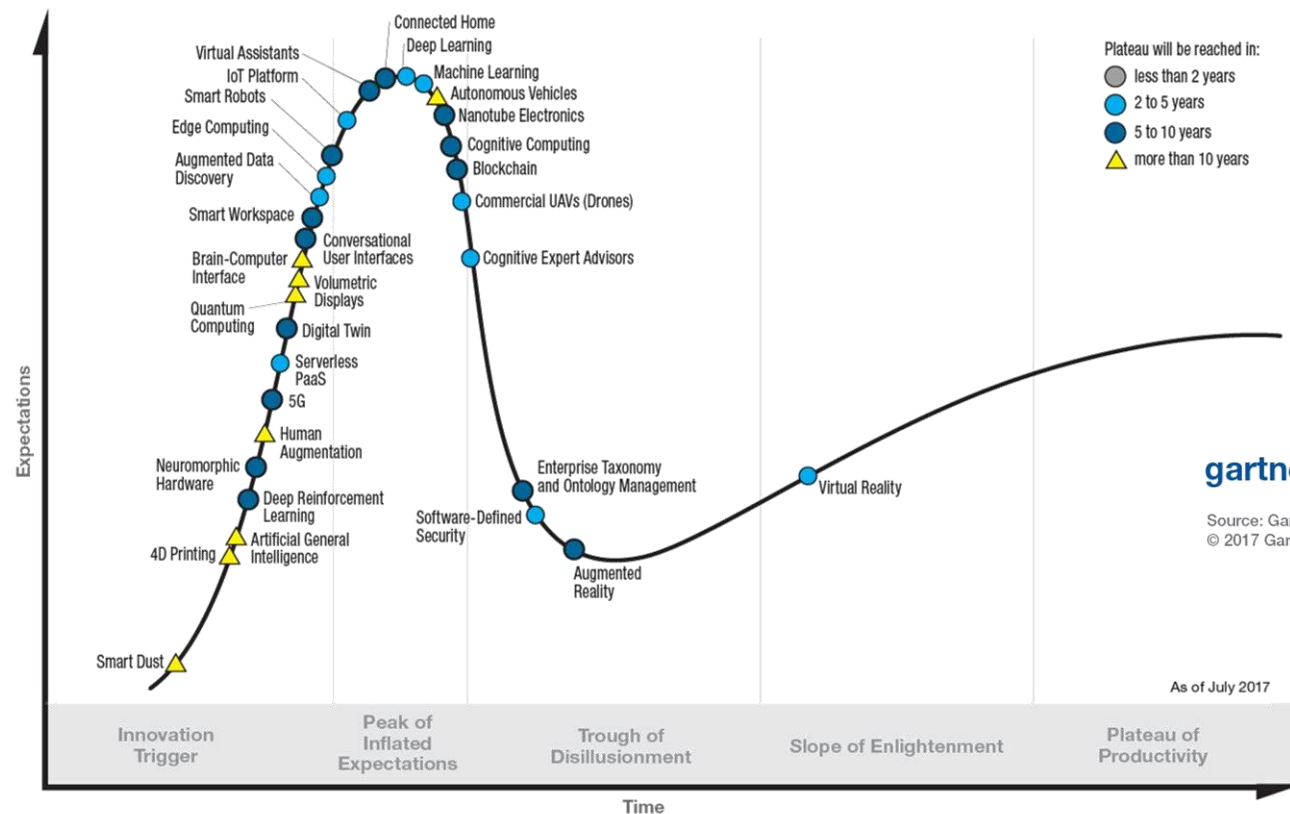
- More instances of how the technology can benefit the enterprise start to crystallize and become more widely understood. Second- and third-generation products appear from technology providers. More enterprises fund pilots; conservative companies remain cautious.

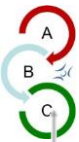
- **Plateau of Productivity**

- Mainstream adoption starts to take off. Criteria for assessing provider viability are more clearly defined. The technology's broad market applicability and relevance are clearly paying off.

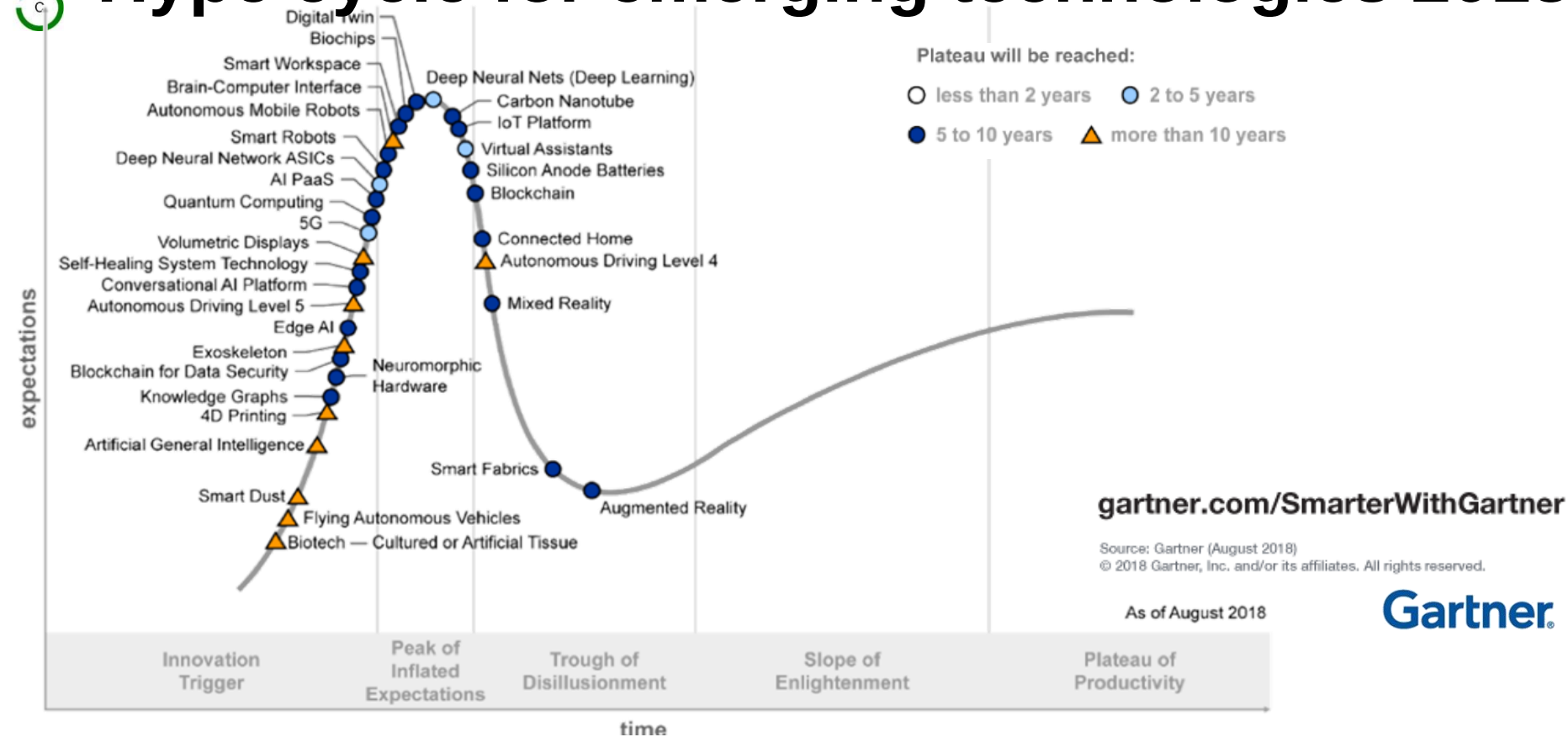


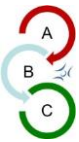
Hype cycle for emerging technologies 2017





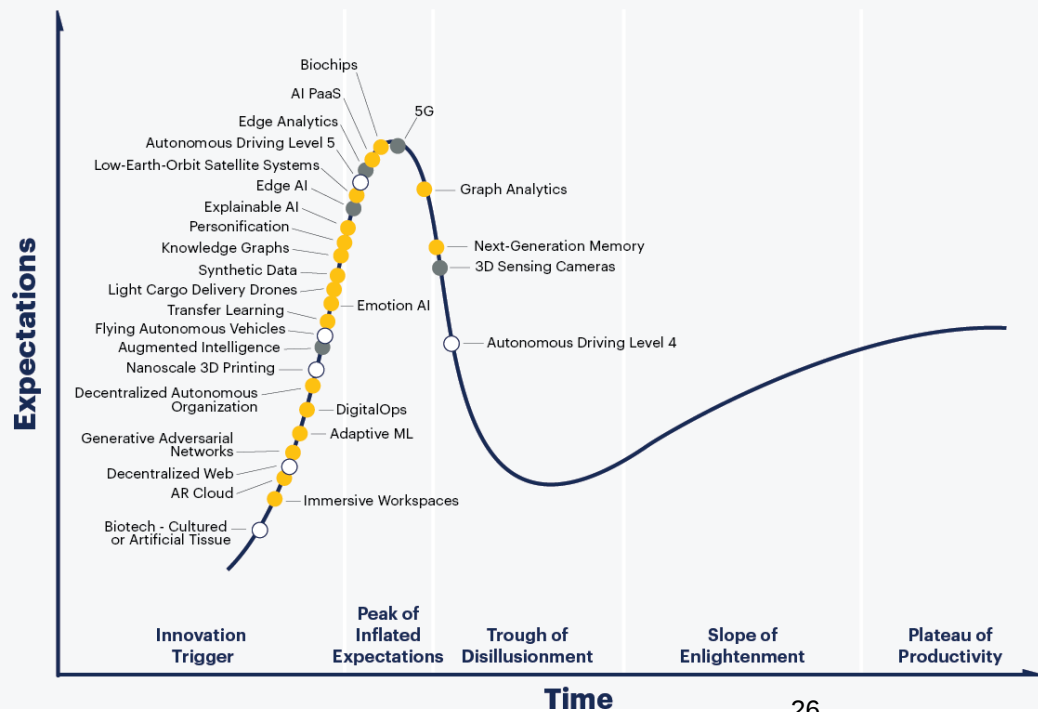
Hype cycle for emerging technologies 2018





Hype cycle for emerging technologies 2019

Gartner Hype Cycle for Emerging Technologies, 2019



Stable: autonomous driving L4, Biotech (Artificial Tissue)

Evolving: 5G, AI technologies

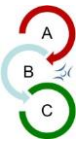
Missing: robots, quantum computing

Greatest leap: autonomous driving L5

gartner.com/SmarterWithGartner

Source: Gartner
© 2019 Gartner, Inc. and/or its affiliates. All rights reserved.

Gartner



Hype cycle for emerging technologies 2020

Hype Cycle for Emerging Technologies, 2020



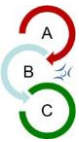
Highlights of five unique trends:

- Composite architectures
- Algorithmic trust
- Beyond silicon
- Formative artificial intelligence (AI)
- Digital me

gartner.com/SmarterWithGartner

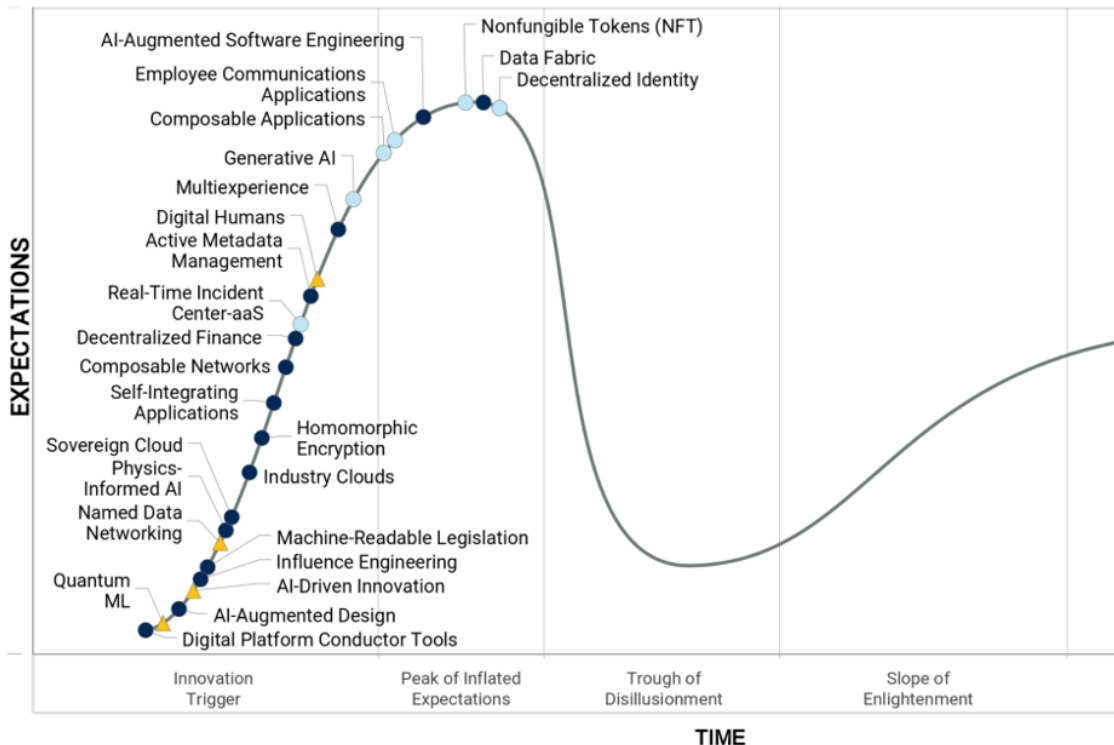
Gartner

Source: Gartner
© 2020 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner and Hype Cycle are registered trademarks of Gartner, Inc. and its affiliates in the U.S.



Hype cycle for emerging technologies 2021

Plateau will be reached: ○ < 2 yrs. ● 2–5 yrs. ● 5–10 yrs. ▲ >10 yrs. ✗ Obsolete before plateau



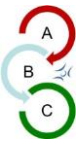
Highlights five unique trends:

- Evolution of artificial intelligence (AI) even in software engineering
- Industry clouds
- Digital me
- Quantum machine learning (ML)

gartner.com/SmarterWithGartner

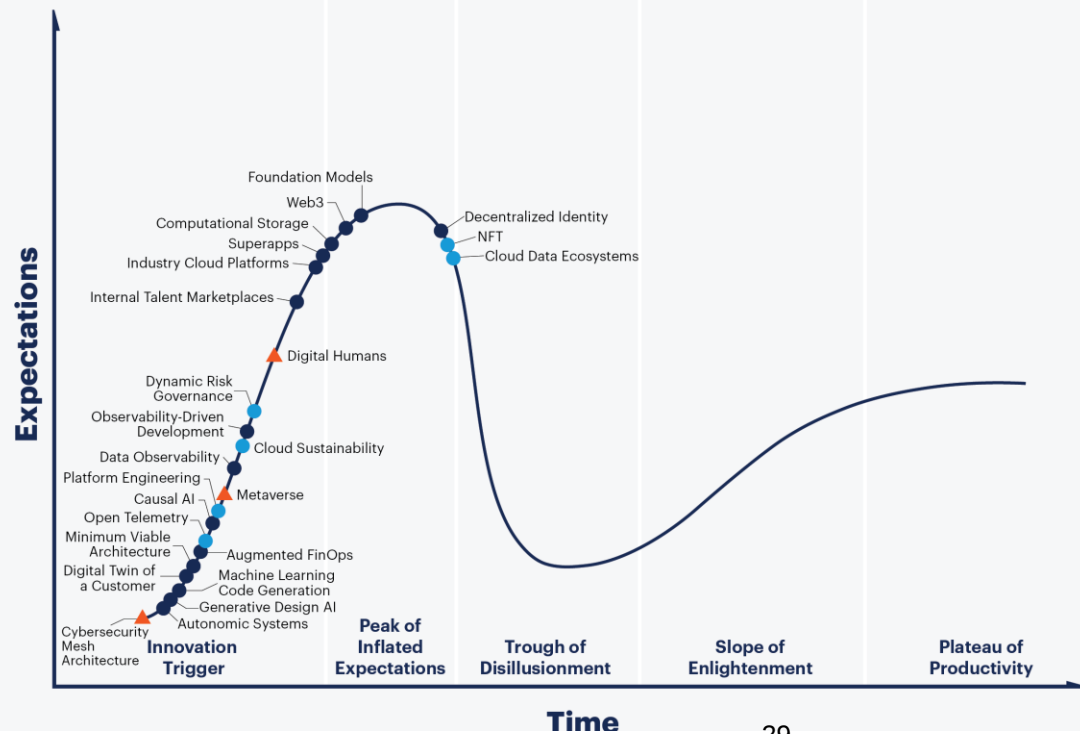
Gartner

Source: Gartner
© 2020 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner and Hype Cycle are registered trademarks of Gartner, Inc. and its affiliates in the U.S.



Hype cycle for emerging technologies 2022

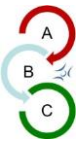
Hype Cycle for Emerging Tech, 2022



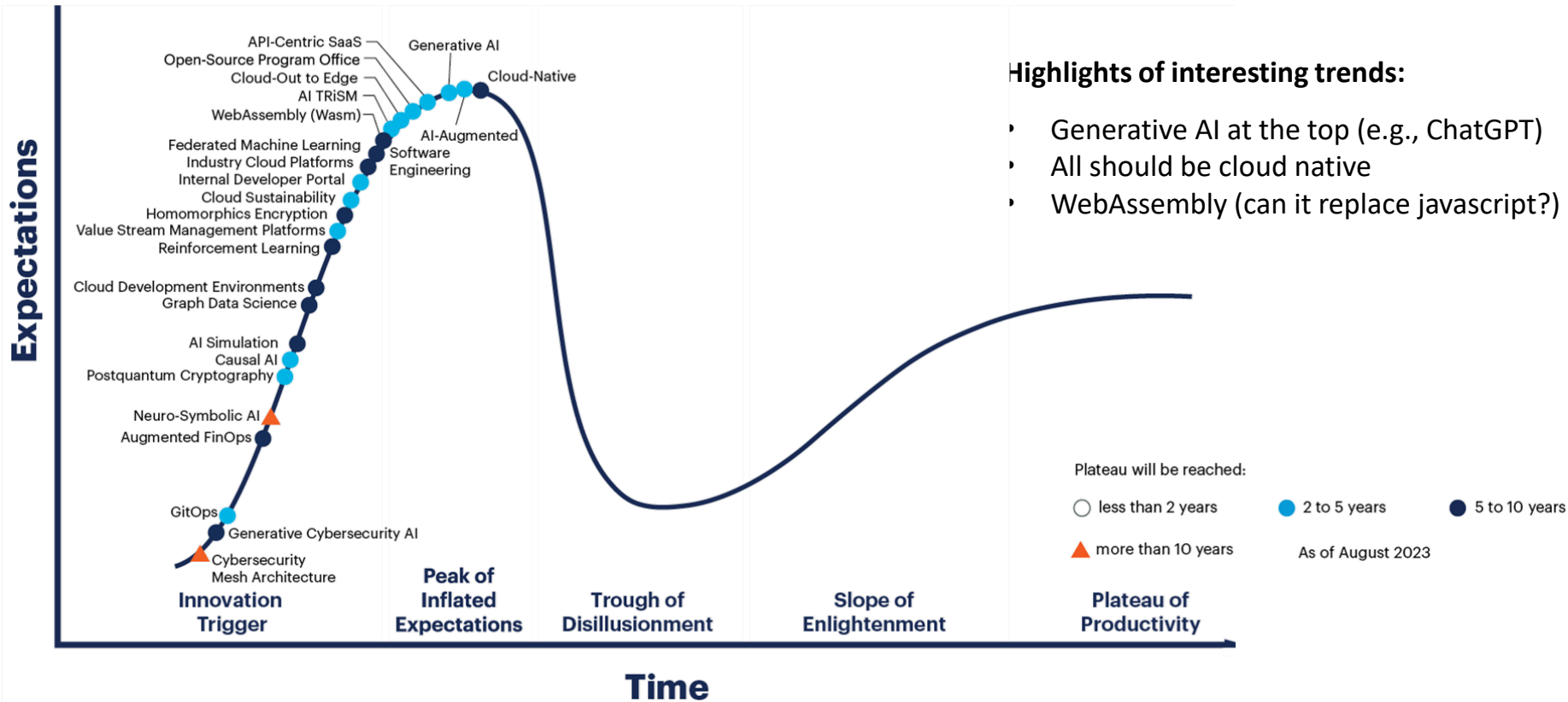
Highlights four interesting trends:

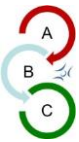
- Machine Learning code generation
- Metaverse
- Digital Humans
- Web3 (http3 uses QUIC instead of TCP)



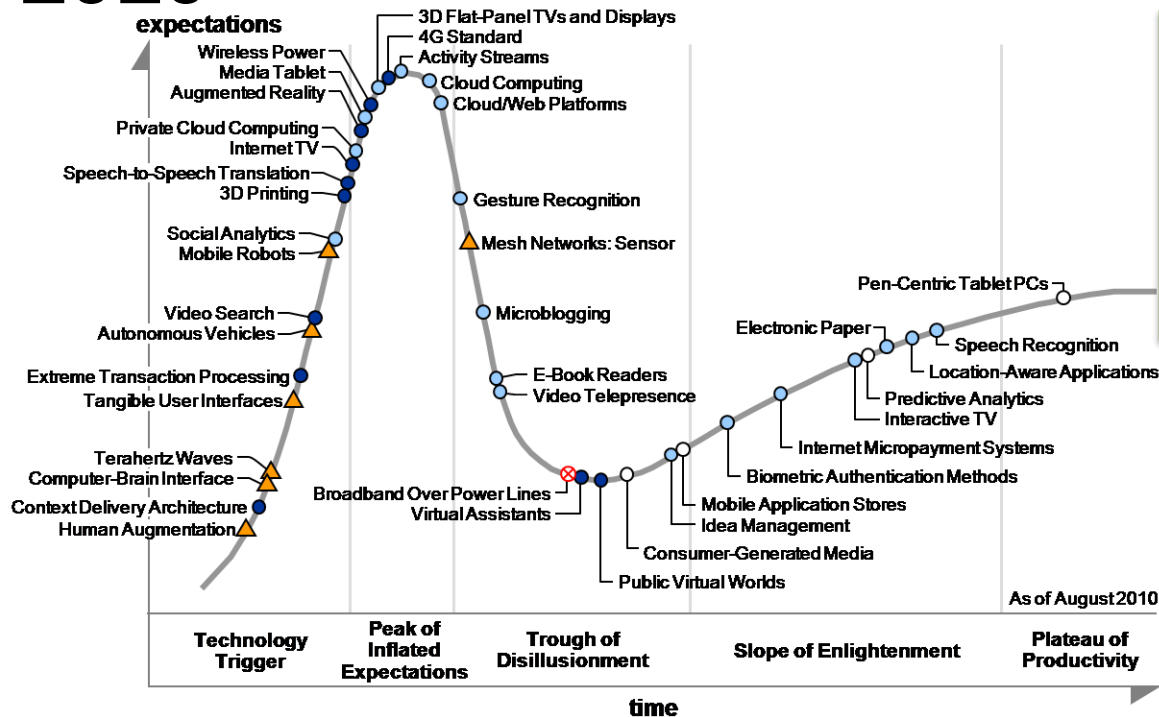


Hype cycle for emerging technologies 2023





Hype cycle for emerging technologies 2010

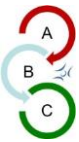


Still on graph: new aspects of autonomous driving

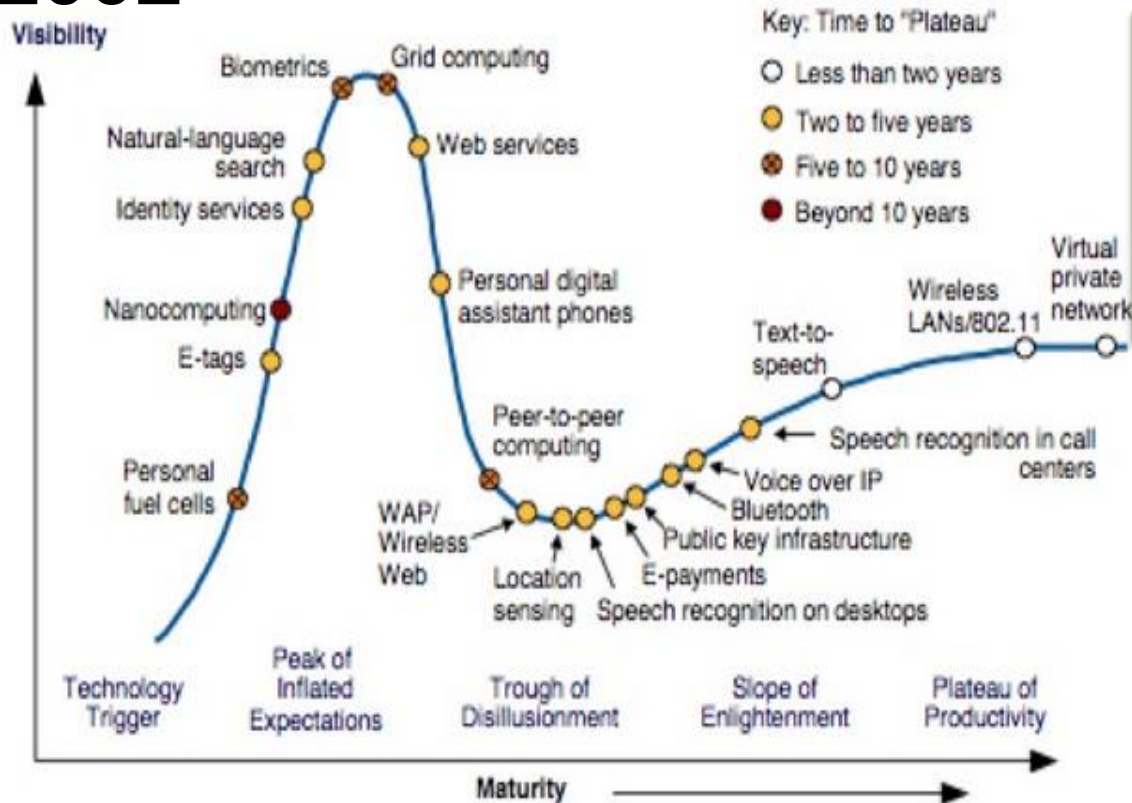
Many things are natural today: 4G, 3D printing, tablet, IPTV

Still hardly works: speech-to-speech (or speech-to-text), computer-brain interface

Source: Gartner



Hype cycle for emerging technologies 2002

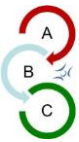


Still on graph: practically nothing

Many things are natural today: Wifi, Bluetooth

Still hardly works or waiting for penetration: fuel cell charging stations, speech recognition on desktops

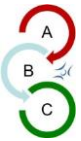
Source: Gartner



THE PRODUCT

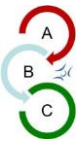
What is a product?

Market players

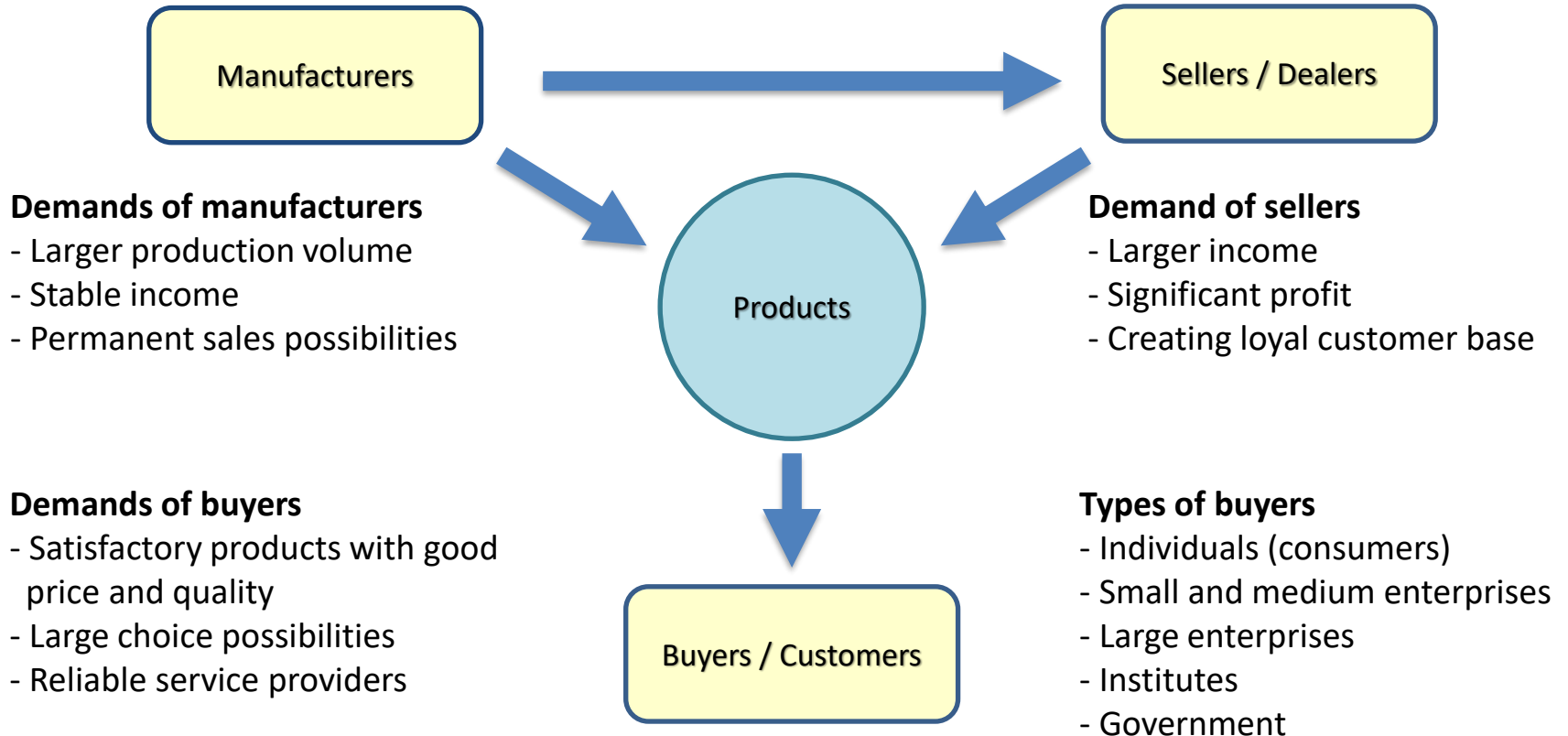


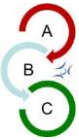
What is a product?

- **The product is the whole of physical, aesthetic and symbolic behaviors to meet the customers' demand and to offer in the market**
- **Product types**
 - Materialized product (food, phone set, car)
 - Intellectual product (book, music, software)
 - Services (restaurant, telecommunication, car repair)
 - Experience (theatre, concert)
 - Event (sport)
- **Durability**
 - Durable goods (clothes, household appliances)
 - Nondurable goods (food)



Market players

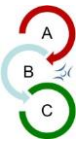




PRODUCT DEVELOPMENT

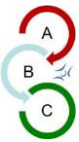
Concept of product development

Steps of product development process



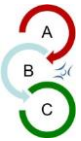
How to increase income

- **Selling existing products**
 - On new markets
 - To new customers
- **Improving existing products**
 - Correcting / eliminating bugs
 - Enrich features
 - Better / more practical packaging
- **Introducing new products**
- **Explore new business, create new activities and processes**



How to increase income

- **Selling existing products**
 - On new markets
 - To new customers
- **Improving existing products**
 - Correcting / eliminating bugs
 - Enrich features
 - Better / more practical packaging
- **Introducing new products**
- Explore new business, create new activities and processes



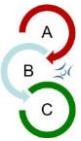
Concept of product development 1/2

- **Product development**

- Develop new product to meet new or changing demands
- May build on new technology, but it is not a must
- Completely new technology (typically) results in new product family, as well
- Market will judge the viability of the new product

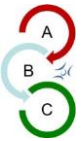
- **The aim of product development**

- Meeting the increasing customer demands
- Increasing market share
- Ensuring enterprise growth
- Keeping and growing competitiveness
- Generate profit



Concept of product development 2/2

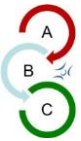
- **The result of product development**
 - Customers recognize it as new product
 - Improvement of existing product
 - Enriched feature set
- **Product development types**
 - **Initiating**: new still unknown product on the market
 - **Following**: already known product on the market
 - **Product enhancement**: adding new features
 - **Product variation**: different products by market segments



Steps of product development process

1. Idea management (collecting and selecting ideas)
2. Preparing product proposals (product concepts)
3. Preparing business plan (product description, market segments, price, marketing methods)
4. Realization (product development, cost analysis, market research, price setting)
5. Product launch on the market
6. Testing launch effectiveness
7. Product modification (correction, finalization)

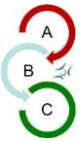
In each step business estimations will be taken into account



Product development process 1/7

Idea management

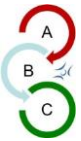
- **Idea collection from**
 - Customers and sellers
 - Managers and employees
 - Researchers
 - Competitors
- **Idea generation**
 - Idea collection box
 - Meet with customers, developers
 - Brainstorming
 - Consumer surveys
 - Journals and magazines
 - Tech shows and fairs
- **Idea selection**
 - Relevant for the market
 - Timely
 - Feasible
 - Competitive
 - Etc.



Product development process 2/7

Preparing product proposal

- **Create product proposal from selected ideas**
 - Creating concept of product
 - Detailed specification and description of product
 - Determine target market of product
 - Who the consumers are
 - Why it is a good product
 - How much sales is expected
 - Position product on the market
- **Evaluation of product proposal**
 - Accept / modify / delay / reject



Product development process 3/7

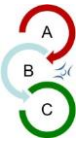
Preparing business plan

- **Create business plan**

- Detailed specification and description of the product
- Creation of realization process and its schedule
- Identify customer base (individuals, SMEs, large enterprises, institutes, government)
- Price settings based on costs of realization, market analysis (actual and expected market situation), prices of competitors
- Estimate expected traffic (sales volume) looking forward 1-5 years (even covering more scenarios)
- Select sales methods and channels
- Calculate possible losses, profit, payback time

- **Accept / modify / reject the business plan**

- Based on whether the business plan is both technically and financially feasible

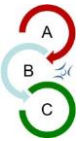


Product development process 4/7

Realization of product

- **Realization**

- Considering demands of target customer base
- Single or multi-phase realization
 - Prototype (the only working instance)
 - Pilot (in small network)
 - Full network
- Technology tests of product – whether it meets specifications, mean time between failures, etc.
- Customer tests of product (friendly customers), product ergonomics, detection of failures / bugs, etc.
- Compare with similar products
- Cost analysis based on real costs, price settings (promotional price, final price)



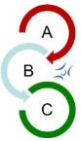
Product development process 5/7

Product launch on the market

- **Preparing the product launch**

- Marketing campaigns to introduce the product
- Demos and installations at exhibition rooms of dealers
- Demos at tech shows and fairs
- Preparation (education, FAQ) of sales channels (shops, TV, phone, Internet)
- Selection of target audience (customer base)
- Identify sales point (including geographical distribution)
- Timing: when to enter the market (first / parallel with others / delayed)

- **Launch the product**

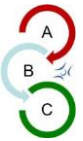


Product development process 6/7

Testing launch effectiveness

- **Testing the product**

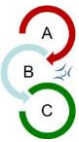
- Tempo of sales
- Preparedness of dealers
- Product suitability compared to demands and expectations
- Ratio of failures or faulty operation
- Customer satisfaction
- Income and profit
- Unforeseen events
- Modification proposals



Product development process 7/7

Product modification

- **Possible modifications based on the experiences of the launch (generally after 6 months - 1 year)**
 - Modification of specification
 - Modification of equipment/service
 - Modification of price
 - Modification of sales channels
 - Modification of customer office
- **Product finalization**
 - Generally, after 1-2 modifications
 - During life cycle management product modification, enhancement may occur



PRODUCT LIFE CYCLE & PHASES

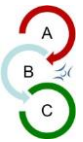
Product life cycle

Life cycle management

Product life phases

Market position of products

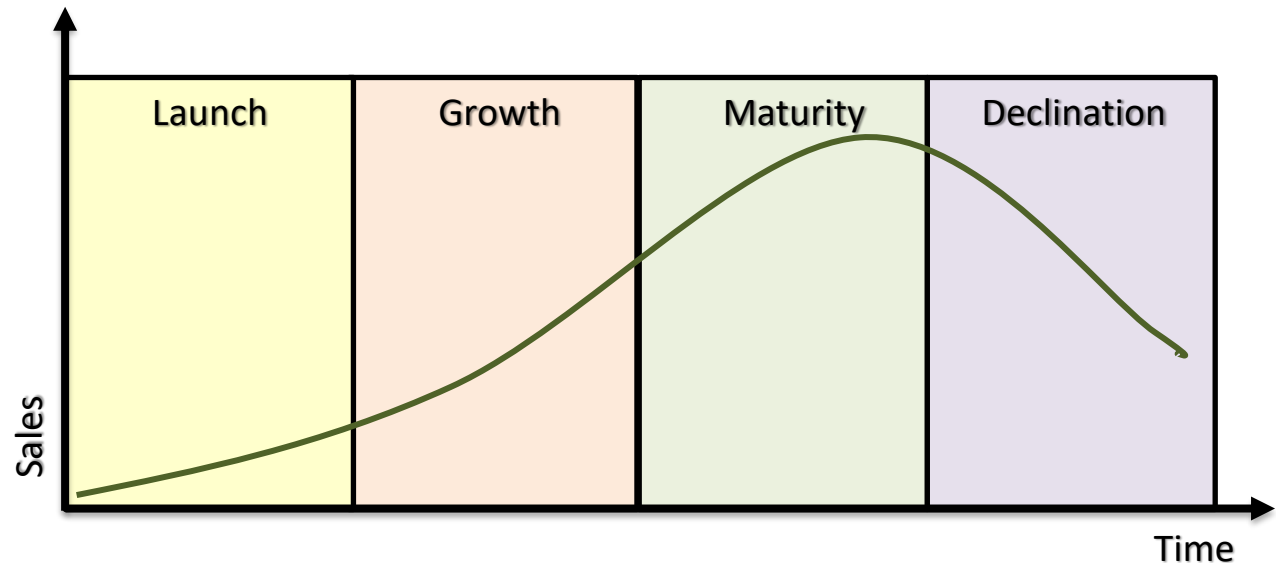
Features of life phases

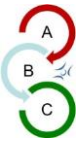


Product life cycle

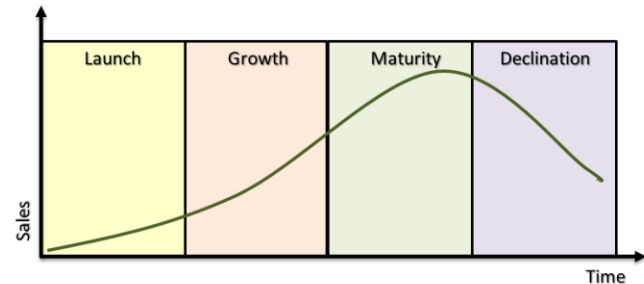
Life cycle represent the sold amount of the product

- from market launch
 - until withdrawing from the market
- as a function of time

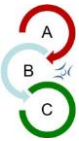




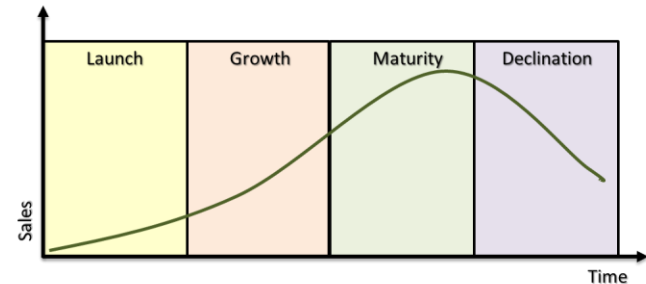
Life cycle management 1/2



- The status of the products should be verified annually, their market position should be checked, and corrections might be initiated to desired positioning
- **Launch phase in the cycle**
 - Introducing the first generation of product
 - Promotional prices, discounts (e.g., no entry fee)
 - Strong advertisements, marketing and promotions
- **Growth phase in the cycle**
 - Improving product quality, adding new features
 - Diversification of product (multiple variants to target different market segments)
 - Entering new markets, apply new sales channels
 - Sales, decrease price (e.g., mobile services)



Life cycle management 2/2

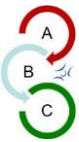


- **Maturity phase in the cycle**

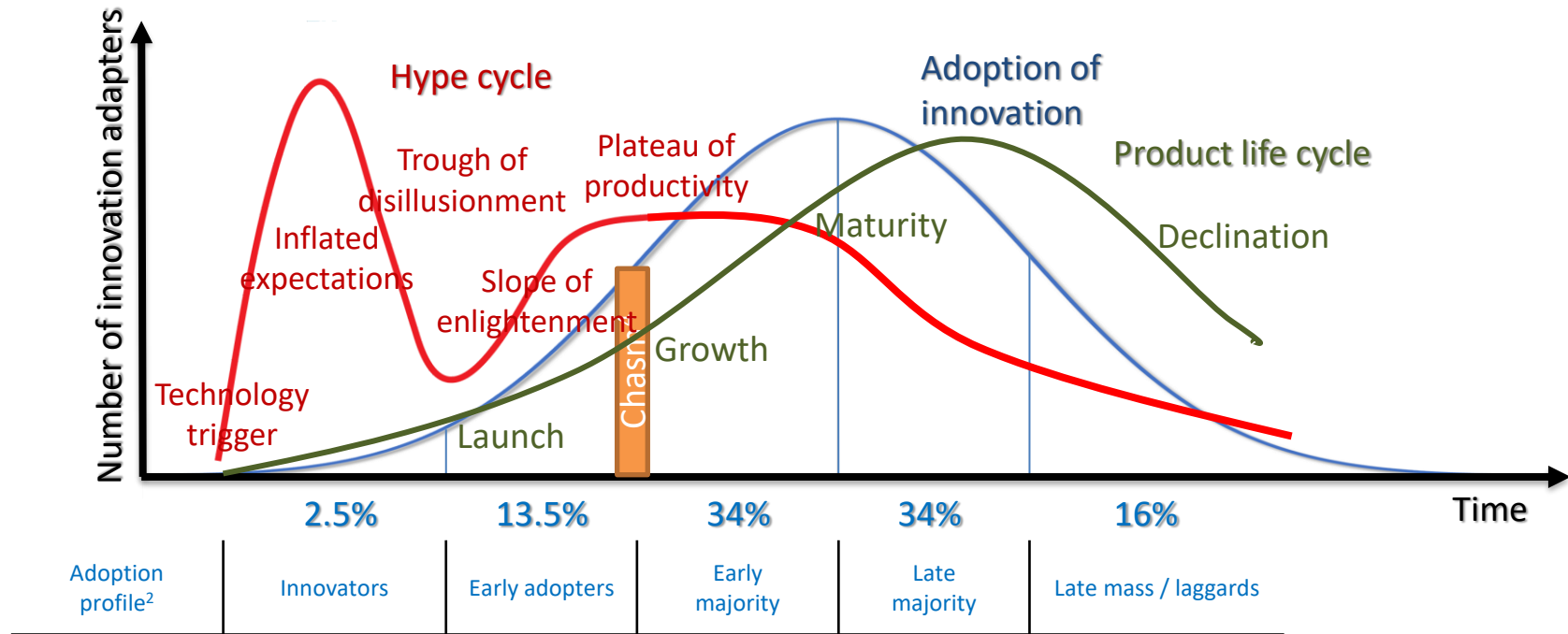
- Growth of traffic is decreasing; market position gets stabilized
- Sales coming from the replacement of existing / old products
- The competition is not about getting new customers, but lure competitors' customers (e.g., via mobile number portability)
- Aim is to keep customers, gifts for loyal customers
- Discounts, sales, loyalty programs, 1 or 2 year long loyalty contracts
- Introducing new products (e.g., pack together telephone, Internet and IPTV)

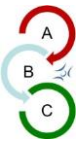
- **Declination phase in the cycle**

- Decreasing traffic (e.g., telegraph)
- Customers changing to other products (e.g., from telegraph to SMS)
- Try to decrease the operational costs of service
- Stop service as soon as possible (e.g., telex)



Hype cycle, inno. adopt. & product life cycle

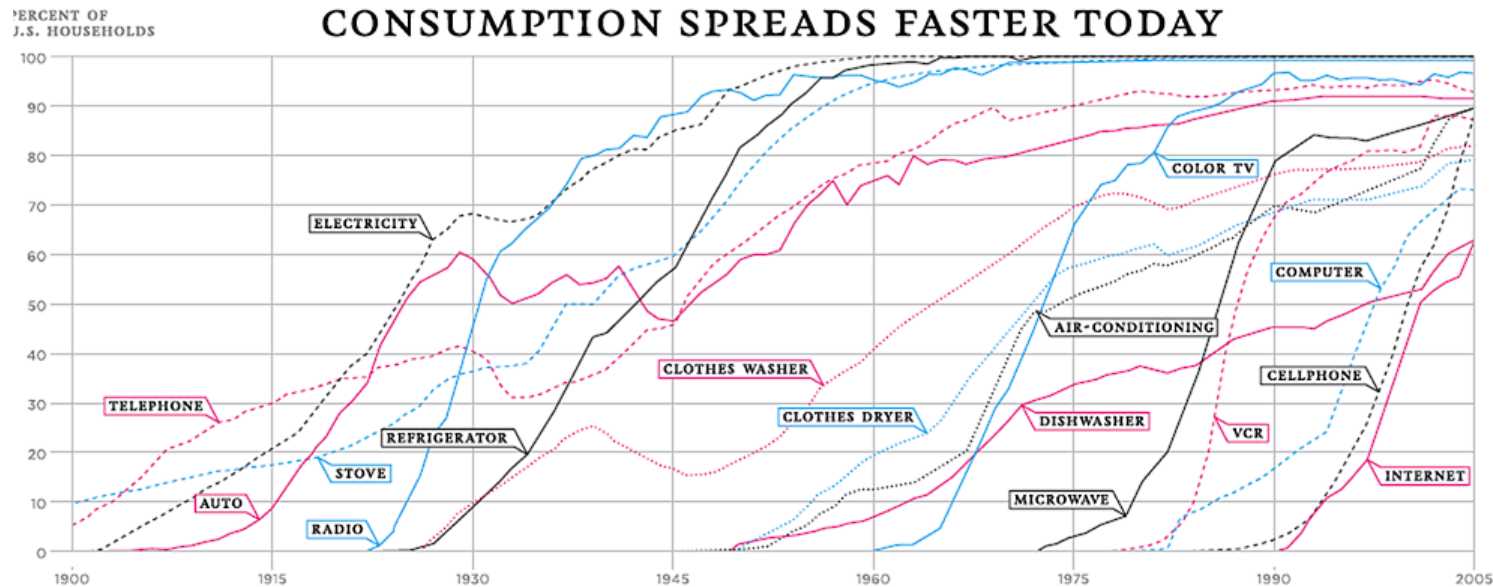




How fast a product can spread

Source: Nicholas Felton, *The New York Times*, 2008

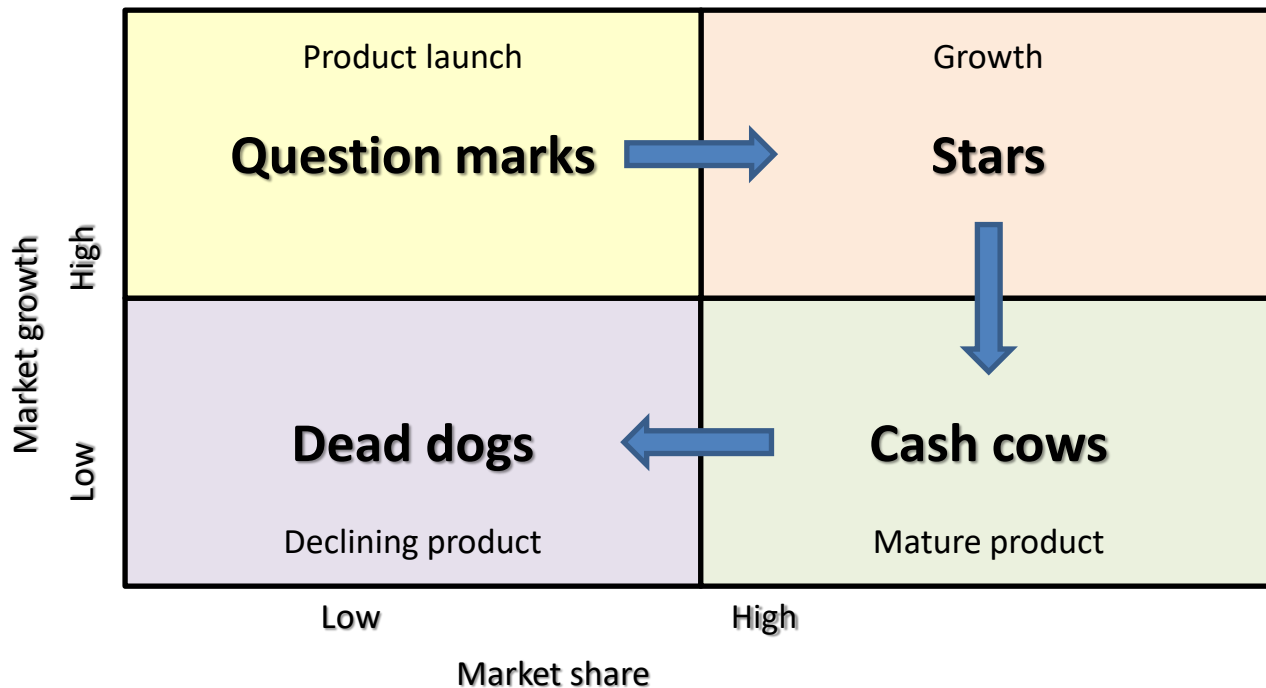
<https://static01.nyt.com/images/2008/02/10/opinion/10chart.large.gif>





Product life phases

BCG matrix (Boston Consulting Group)

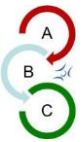




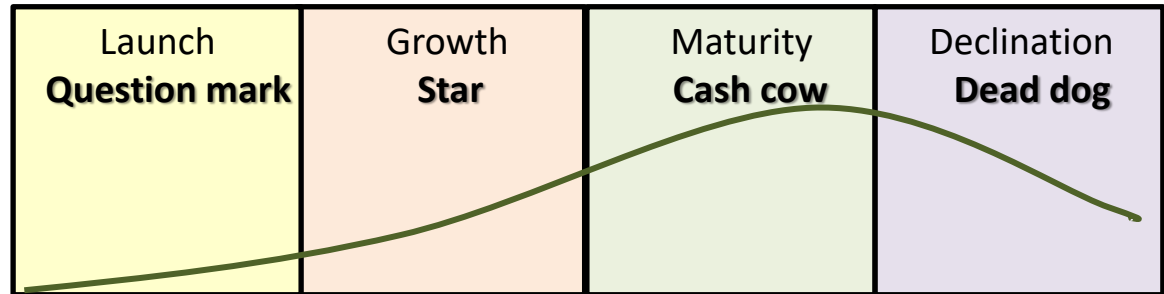
Market position of products

BCG matrix (Boston Consulting Group)

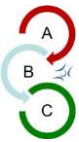
- **Question marks:** relatively new products, which have low market share and have high market growth, but their success still has a “question mark”
- **Stars:** those successful products, whose market share and growth are both high, they are fundamental for the future of the company and its profit
- **Cash cows:** products with very high market share, but this share cannot be increased. Keeping the strong market position is essential for the long-term income and profit
- **Dead dogs:** those products, whose market share and growth potential are not satisfactory. A company should be prepared to stop this product



Features of life phases



	Launch Question mark	Growth Star	Maturity Cash cow	Declination Dead dog
Traffic	Low	Fast growing	Maximal	Decreasing
Specific cost	High	Average	Low	Low
Profit	Negative	Growing	High	Decreasing
Buyers	Innovators	Early users	Average customers	Late users



MARKET SEGMENTATION & SALES / PRICING

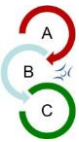
Market segmentation and selection of market targets

Sales methods of products

Product pricing and consumers' price sensitivity

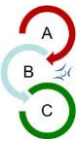
Typical marketing combinations

Literature



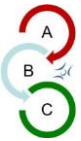
How to increase income

- **Selling existing products**
 - On new markets
 - To new customers
- **Improving existing products**
 - Correcting / eliminating bugs
 - Enrich features
 - Better / more practical packaging
- **Introducing new products**
- **Explore new business, create new activities and processes**



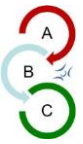
How to increase income

- **Selling existing products**
 - On new markets
 - To new customers
- Improving existing products
 - Correcting / eliminating bugs
 - Enrich features
 - Better / more practical packaging
- Introducing new products
- **Explore new business, create new activities and processes**



Market segmentation (1/2)

- **Market segmentation** – splitting the market into pieces by
 - Products or product groups
 - Customer types
- **Product criteria**
 - Product function
 - Product price
 - Product reputation
- **Customer criteria**
 - **Location**: type (town/village) and size of settlement
 - **Demographic**: age, sex, family, (nationality)
 - **Enterprise type**: SME, large enterprise, institution
 - **Societal**: occupation, education, income, life style
 - **Behavior**: product usage, loyalty, personal interest



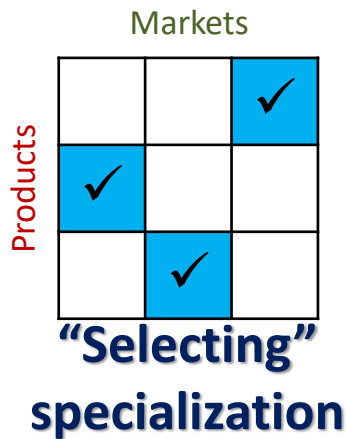
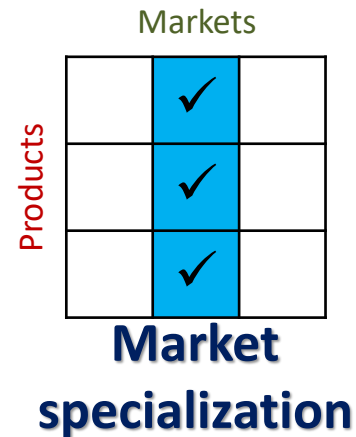
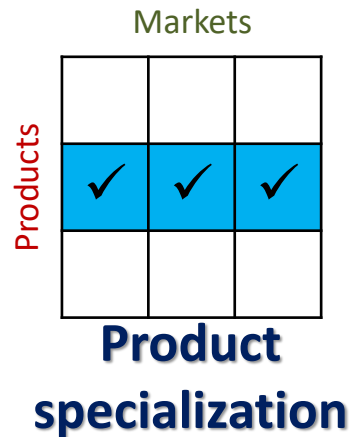
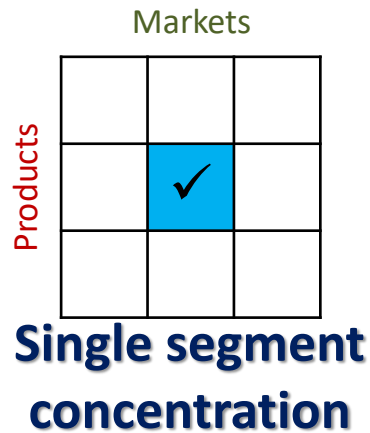
Market segmentation (2/2)

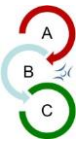
Example of ICT products & markets

		ICT markets			
		Residents	Small enterprise	Medium enterprise	Large enterprise
ICT products	Fixed phone	✓	✓	✓	✓
	Mobile phone	✓	✓	✓	✓
	Internet	✓	✓	✓	✓
	CATV	✓			
	Data services			✓	✓
	Private network				✓



Selection of market targets





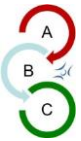
Sales methods of products

- **Sales**
 - Handing over the product to the buyer against appropriate price
- **Sales methods**
 - **Production oriented (demand driven market)**
 - Demand > offer, „everything“ can be sold
 - In order to meet the demand, it is necessary to increase production
 - **Sales oriented (offer driven market)**
 - Demand < offer, it is necessary to raise the interest for the product
 - The salespeople must sell the product on the market
 - **Customer oriented (competition for the customers)**
 - „His/Her Majesty the Customer“
 - Creating products with respect to user demand
 - Catch the customers, built customer loyalty
 - Preferences, actions, loyalty programs, etc.



Product pricing

- **The price is an amount of money, for which a given product can be sold or bought**
- **Price calculation methods**
 - **Cost based pricing** (conventional prices)
 - Manufacturers: cost + profit
 - Sales enterprise: purchase price + margin
 - **Demand oriented pricing** (customer-oriented prices)
 - Price based on the buyers' price expectation (market research)
 - **Competition oriented pricing** (competitive prices)
 - Prices competing with the other market players' prices (large enterprises – price leaders vs. small enterprises – price followers)



Consumers' price sensitivity

- **Price estimation**

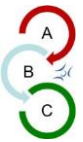
- Based on the features of the product (cheap, expensive, suitable)
- Compared to similar products, substitute, supplementary products (cheaper, more expensive, similar)

- **Price change estimation**

- Price elasticity coefficient: showing how will the traffic react on the price change (generally if the price decreases, then the traffic increases and vice versa)

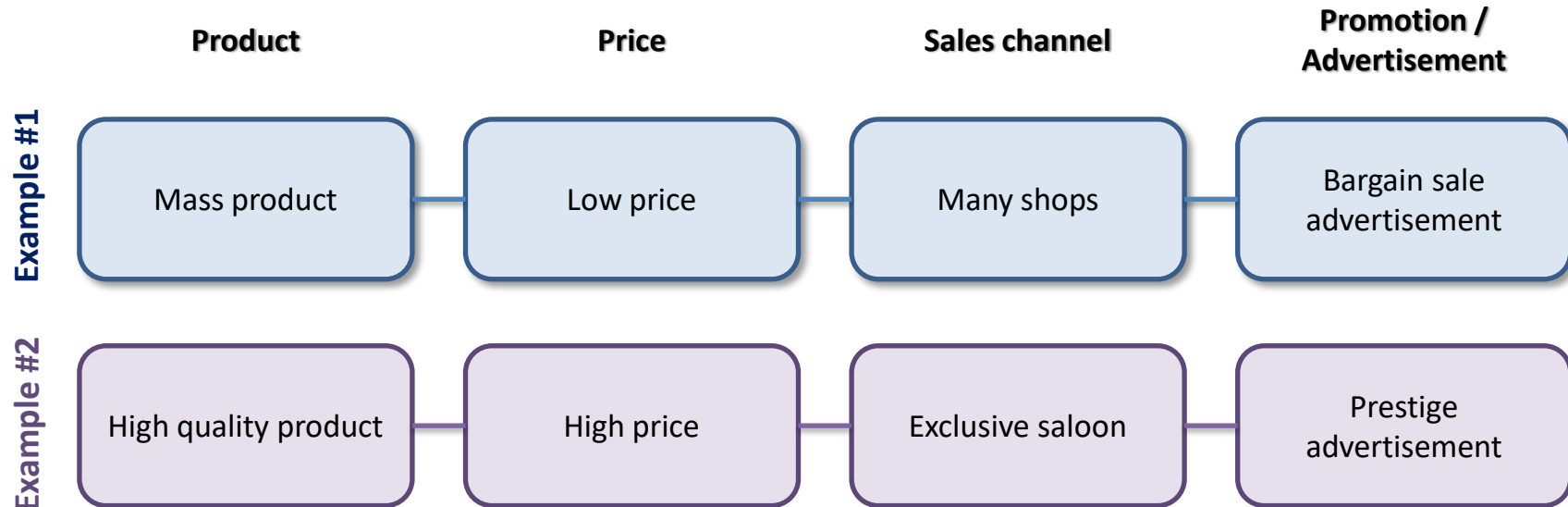
$$\text{Price elasticity coefficient (E)} = \frac{\text{Traffic change in \%}}{\text{Price change in \%}}$$

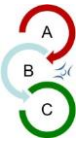
- Price is **non-elastic** if $0 < E < 1$ and the price is **elastic** if $E \geq 1$



Typical marketing combinations

Two major examples

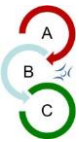




Literature

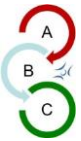
The “bible” of marketing people

Philip Kotler – Kevin Lane Keller:
Marketing management
Pearson Higher Education, 2012



DISRUPTIVE AREAS

Innovation, products and sales: Big Bang disruption



Big Bang disruption 1/2

The innovator

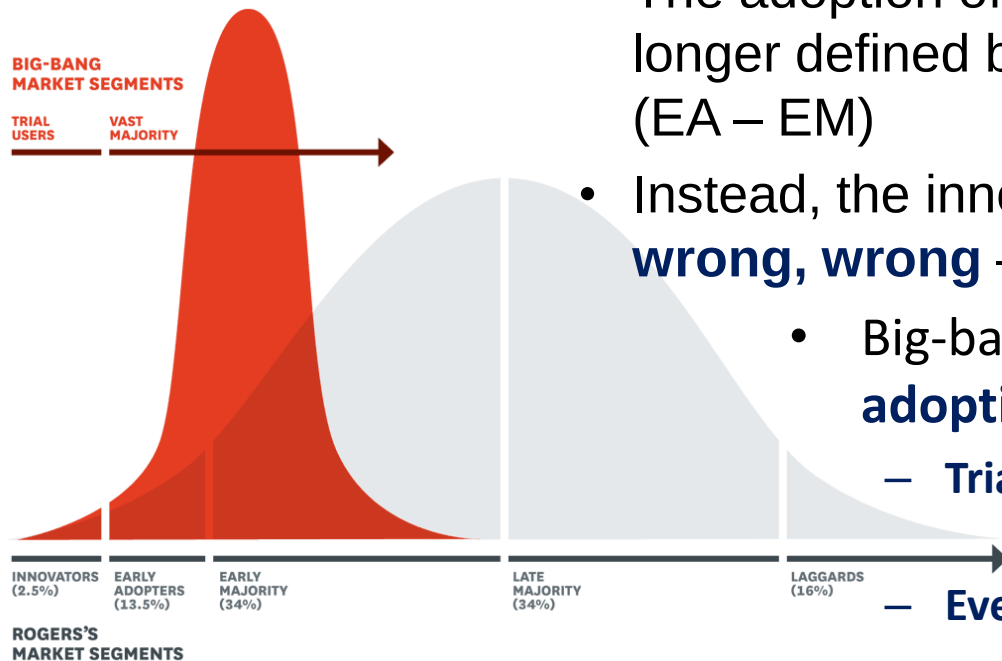
- Old-style disruption posed the **innovator's dilemma**
 - What to invent and what to change with it
- Big-bang disruption is the **innovator's disaster**
 - The innovators who create products at “**hackathons**” aren't even trying to disrupt your business
 - **You're just the collateral damage**

Source: Big-Bang Disruption *by Larry Downes and Paul F. Nunes*; HBR, March 2013



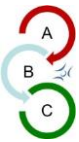
Big Bang disruption 2/2

Unconstrained growth

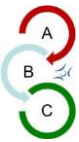


- The adoption of disruptive innovations is no longer defined by crossing a marketing chasm (EA – EM)
- Instead, the innovators collectively get it **wrong, wrong, wrong** – and then **unbelievably right**
 - Big-bang disruptions collapse the **product adoption** we know, only two segments are:
 - **Trial users**, who often participate in product development, and
 - **Everyone else**

Source: Big-Bang Disruption by Larry Downes and Paul F. Nunes; HBR, March 2013



THANK YOU FOR YOUR ATTENTION!



This presentation is protected by international copyright laws. Students attending this course are permitted to use this presentation and this video recording for their own purposes. Copying to or distributing through social network sites or video sharing platforms are prohibited without the written permission of the lecturer.

Copyright © 2024, BME VIK