

M U N I

Inovační management

Inovační strategie

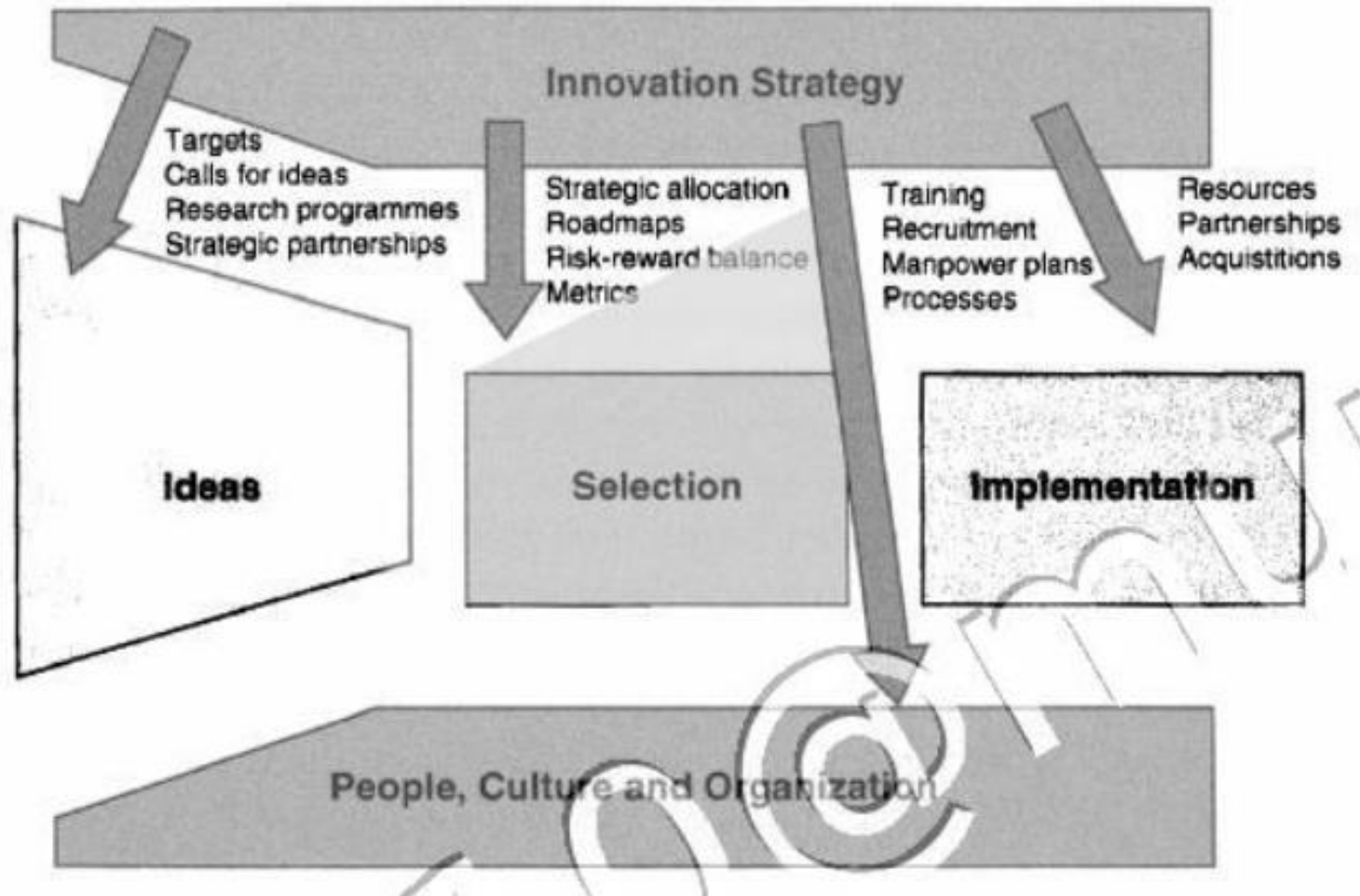
Co se dozvíme?

1. Co je to inovační strategie?
2. Jaké nástroje lze využít při tvorbě inovační strategie?
3. Jak je důležité pracovat s nejistotou prostředí a jak to dělat?
4. Některé casey inovačních strategií

Co je to inovační strategie

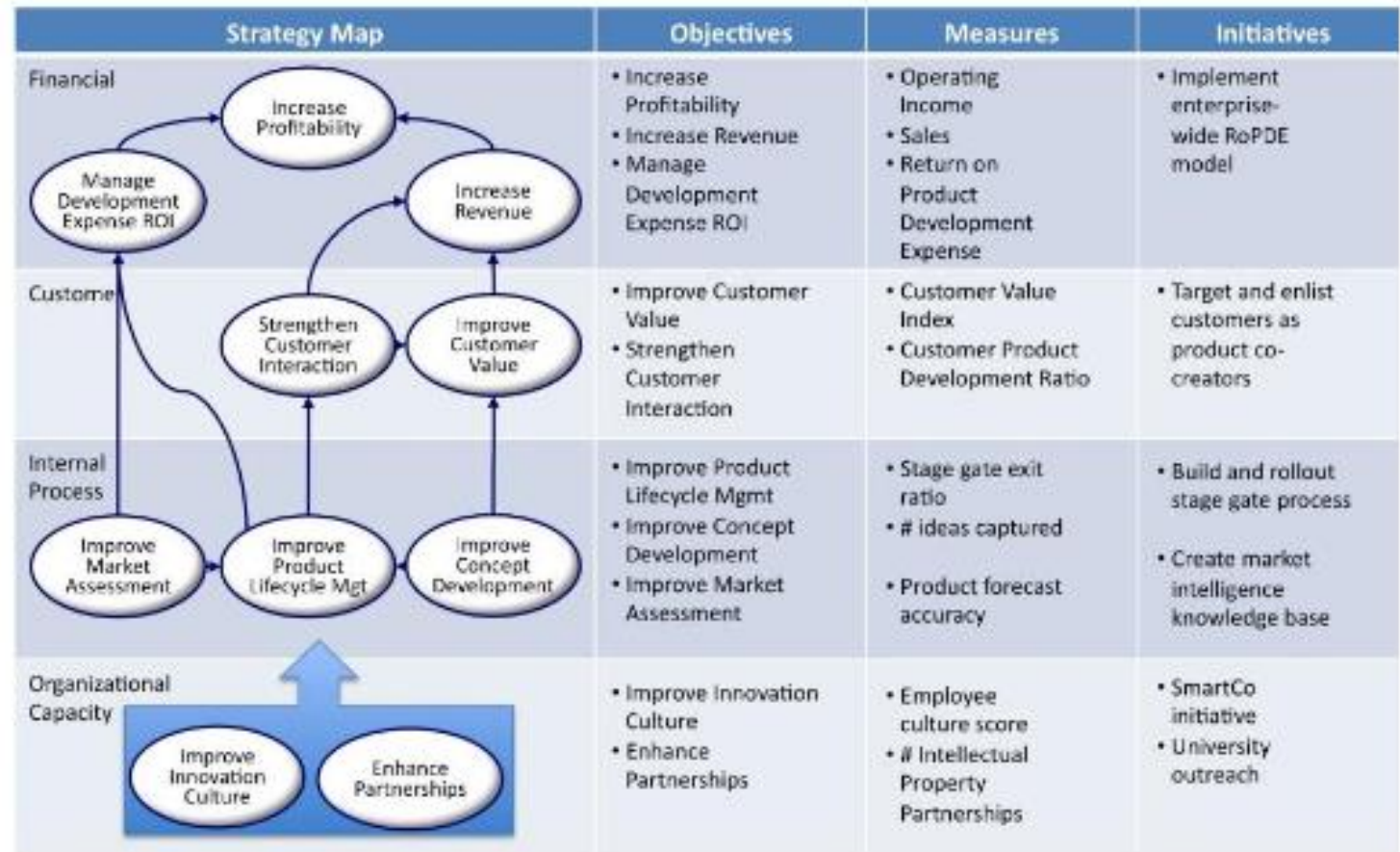
- ❖ závazek ke společnému inovačnímu poslání a strukturovanému souboru činností určených k podpoře **budoucího růstu** organizace. (<https://www.boardofinnovation.com/best-innovation-strategy/>)
- ❖ Innovation strategy is defined as the sum of strategic choices a firm makes regarding its innovation activity. Innovation strategy is considered a firm wide, cross-functional meta-strategy. (Strecker, 2009)

Úloha inovační strategie



Co je to inovační strategie

- ❖ Je součástí celkové podnikové strategie
- ❖ Dlouhodobý pohled
- ❖ Určuje kdy a kde je třeba inovací, aby byly naplněny cíle a určuje způsoby naplnění cílů



Co zohledňovat při tvorbě a implementaci inovační strategie

Goffin a Mitchel definoval 6 základních teorií, na základě kterých lze definovat strategii, jak získat konkurenční výhodu

- ❖ Profit – maximizing and competition based theory
- ❖ Survival based theory
- ❖ Human-resource base theory
- ❖ Agency theory
- ❖ Contingency theory
- ❖ RBV

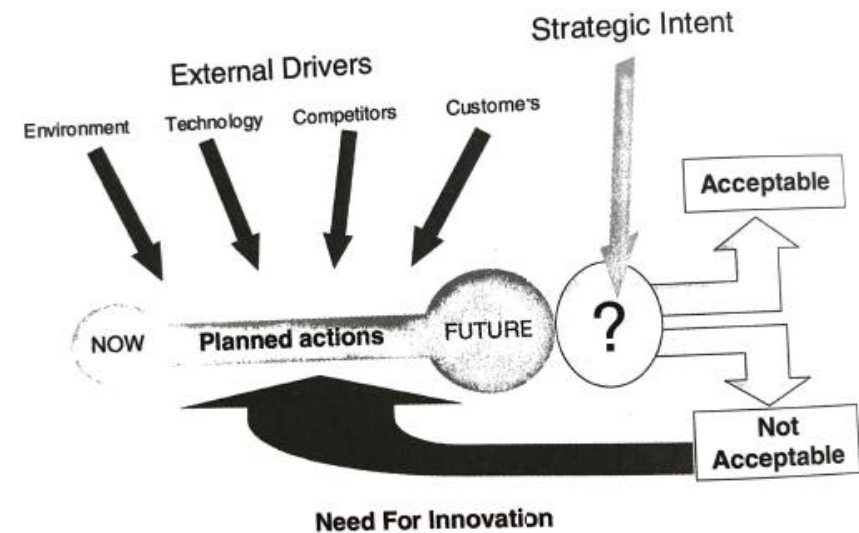


FIGURE 4.2: The Need for Innovation Arising from the Gap between Acceptable and Unacceptable Projections for the Future

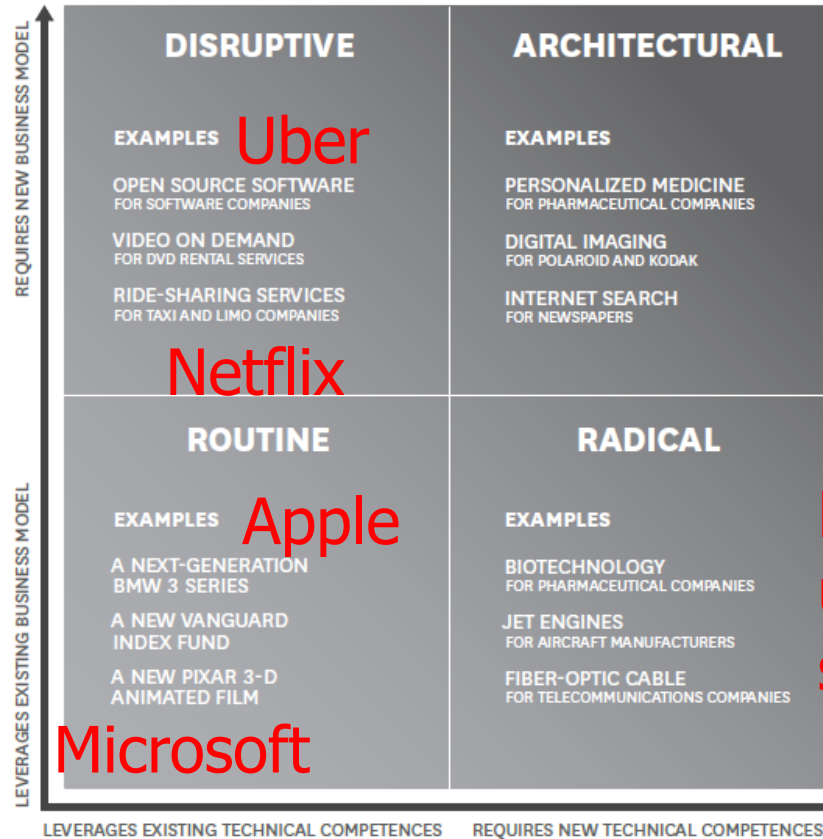
Základní otázky při tvorbě inovační strategie

- How will innovation create value for potential customers?**
- How will the company capture a share of the value its innovations generate?**
- What types of innovations will allow the company to create and capture value, and what resources should each type receive?”**

Innovation landscape map

The Innovation Landscape Map

When creating an innovation strategy, companies have a choice about how much to focus on technological innovation and how much to invest in business model innovation. This matrix, which considers how a potential innovation fits with a company's existing business model and technical capabilities, can assist with that decision.



Different types of innovation with examples.



1. Disruptive innovation
 Revolutionary nature and changing whole industries.



2. Incremental innovation
 Improvements to existing products and processes.



3. Modular innovation
 Improving performance of product by changing modules.



4. Architectural innovation
 Changing the purpose of products. Applying existing technology elsewhere.



5. Product innovation
 Changes and improvements of products.



6. Process innovation
 Changes and improvements of processes.



7. Open innovation
 Collaborative effort to improve products and processes.



8. Closed Innovation
 In-house effort to improve products and processes.

Innovation Radar (Sawhney, et al. 2011)

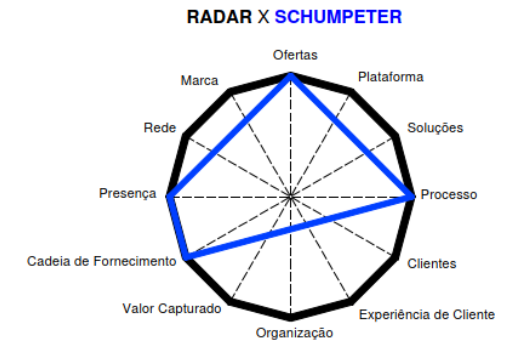
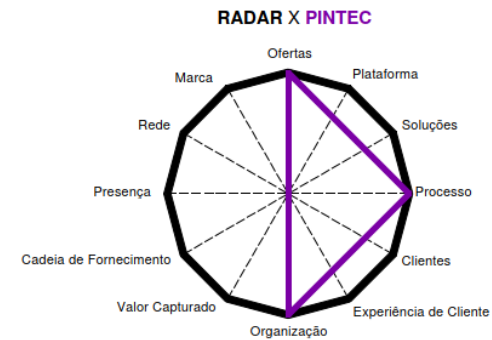
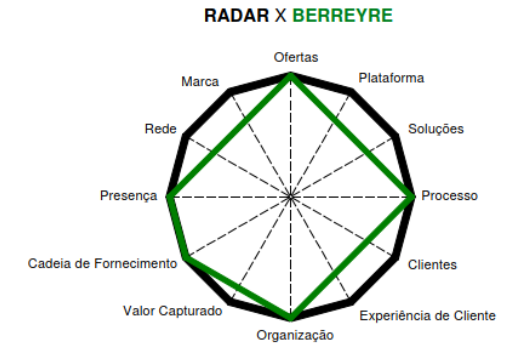
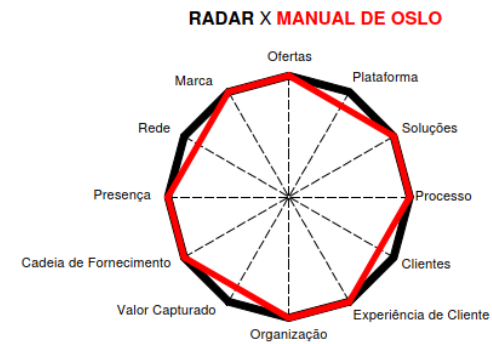
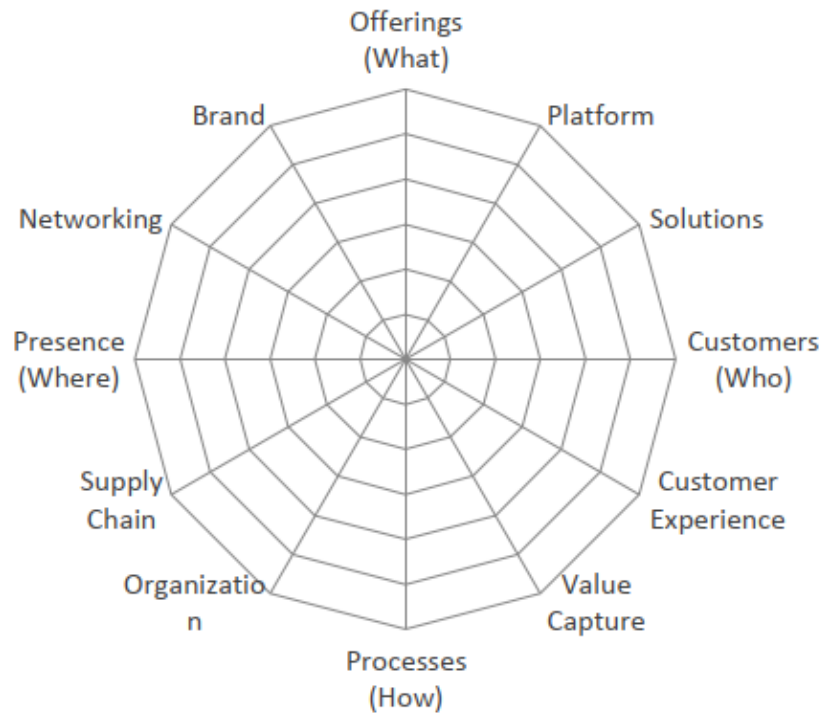
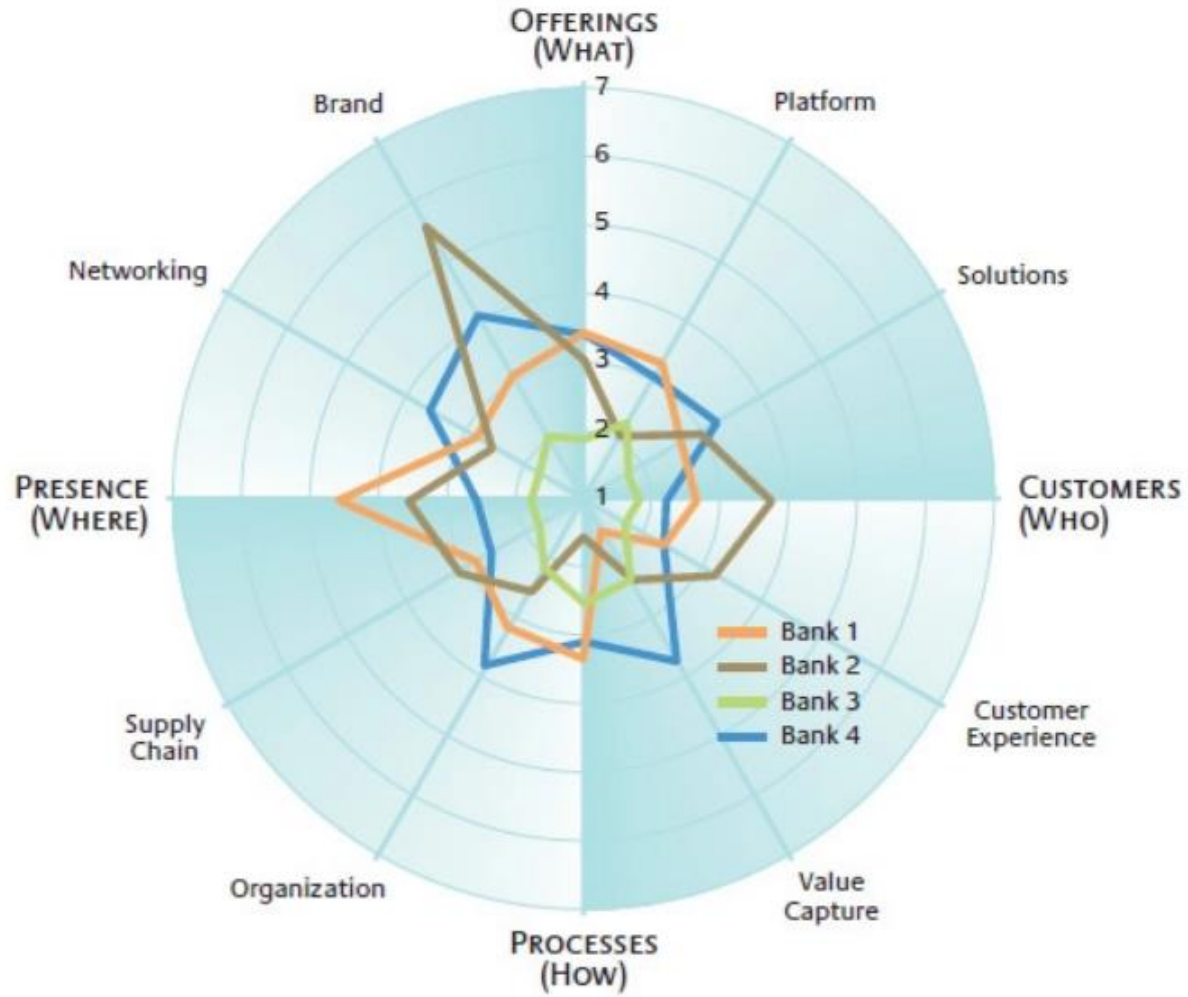


Fig. 1: The Innovation Radar shows all aspects of a business where innovation can happen. (Source: Sawhney et al., 2011)

Garcia, 2008 (dizeratce)

Innovation Profiles of Four Leading Latin American Banks

Benchmarking the innovation radars of competitors can reveal the relative strengths and weaknesses of each company.




PHILIPS

slido



V jakém odvětví působí společnost PHILIPS?

 Start presenting to display the poll results on this slide.

PHILIPS



Table 1 - SWOT analysis of Philips

(Source: Philips Global, 2017-2019)

Strengths Strong R&D Market leader in several different categories Strong Performance & Liquidity	Weaknesses Rapid introduction of new products Poor forecasting of the market demand
Opportunities Economic growth Ageing population Scaling hospitals	Threats Scarce workforce Competition at the electronics market Counterfeit market

- ❖ Koninklijke Philips NV, or Royal Philips (Philips), Nizozemsko
- ❖ Konec 19. století založena Gerardem Philipsem, později se přidal bratr Anton
- ❖ První produkt byly žárovky, výrobce lamp
- ❖ Zaměření na inovace - první kazetový přehrávač (brzy nahrazen japonskými VHS levnějšími), Uvedení COMPACT disk se Sony – později DVD a BlueRay format
- ❖ Do roku 2004 —Let's make things better – zaměření na inovace, více než na podnikatelství
- ❖ Největší zaměstnavatel v Nizozemí od roku 1900 (74,000 zaměstnanců), aktivní ve více jak 100 zemích, tržby v roce 2017 € 17.8 billion. Operating cash flow in 2017 was € 1,9 bln and net income from continuing operations increased to € 1,028 mln (Philips, 2018).

1. trh se žárovkami

2. spotřební elektronika (přehrávače, holicí strojky, televize, rádia) – začátek životního cyklu, pioneer strategie – mezi lety 1945-1990

3. health care industry – v roce 1999 spotřební elektronika 40% tržeb, žárovky 14,5% tržeb, healthcare jenom 8% tržeb,



Španělský maloobchod, založen v roce 1975

Součástí Inditexu (vlastní další značky Pull & Bear, Massimo Dutti, Bershka, Stradivarius, Oysho and Uterqüe).

Výroba v Evropě na rozdíl od ostatního oděvního průmyslu

Zkrácení dodacího cyklu, snížení nákladů na skladování

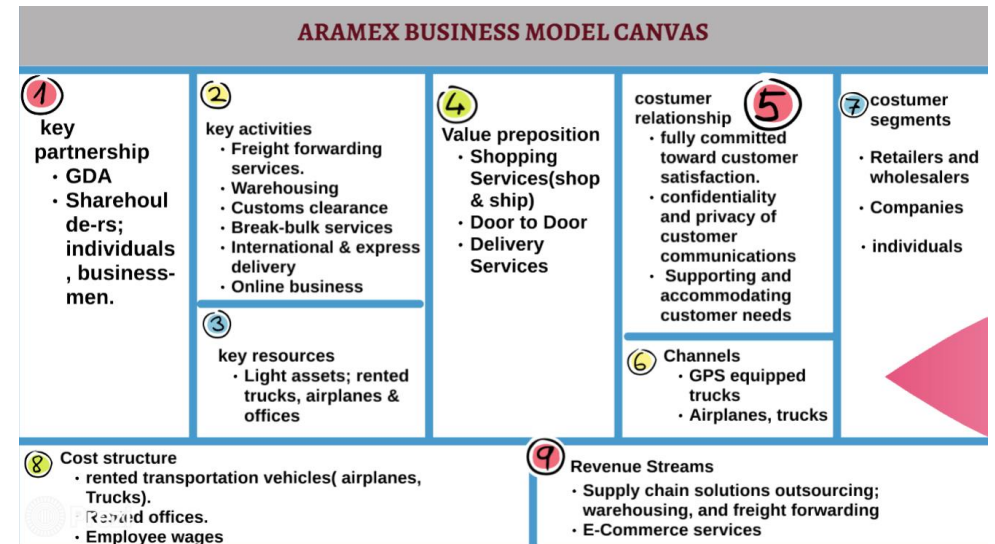
Nejrychlejší v dodání novinek na pulty

Zavážka 2x týdně

ROS 15% - 5x více než je v odvětví běžné

The philosophy of the company is to get many new fashions to market very fast.

ARAMEX case



„you copy, paste, and then you innovate“

Nástroje pro tvorbu strategie při zohlednění nejistoty

1. What are industry shifts?

Industry shifts are deep, structural changes to an industry, industry norms or how an industry operates. Often, these take place over 10+ years before they fully materialize. By industry leaders and experts, these shifts are rarely taken seriously as they are <<not how things are done in our industry>>. Industry shifts frequently represent significant disruption to incumbents. Often, they are only really understood in retrospect. Examples include the internet in the media industry, digital and social in the photo industry, low-cost airlines, distributed energy paradigms, Uber in transportation, clean energy and electric cars in oil & gas. Future-thinking, innovative firms can identify weak signals, invest to learn and develop new business models on major industry shifts.

2. List the top 3 - 5 industry shifts your industry is facing or expect to be facing in the future

- #1
- #2
- #3
- #4
- #5

3. Place your 3-5 industry shifts into the Industry Shifts Map below.



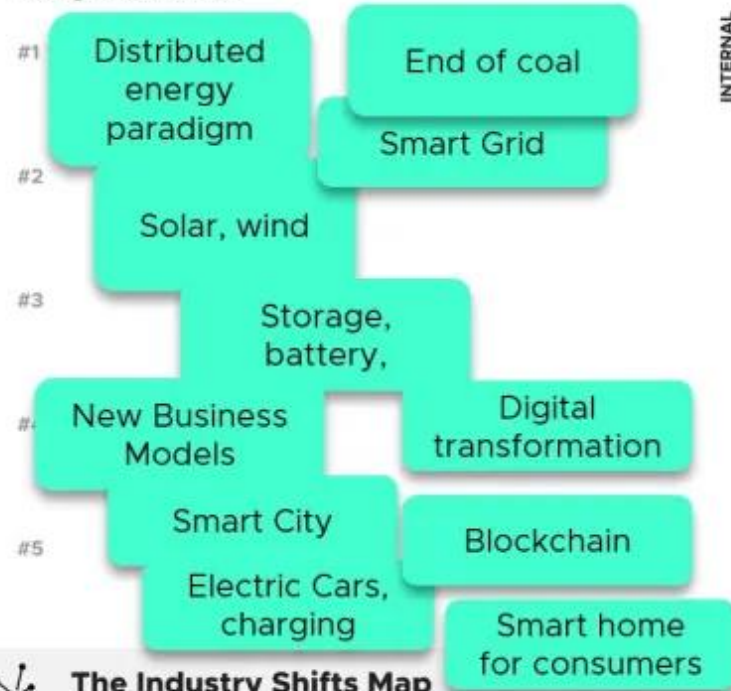
The Industry Shifts Map

Get yours at www.strategytools.io
The Industry Shifts Map by Christian Rangen is the intellectual property of Strategy Tools and is at your disposal under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

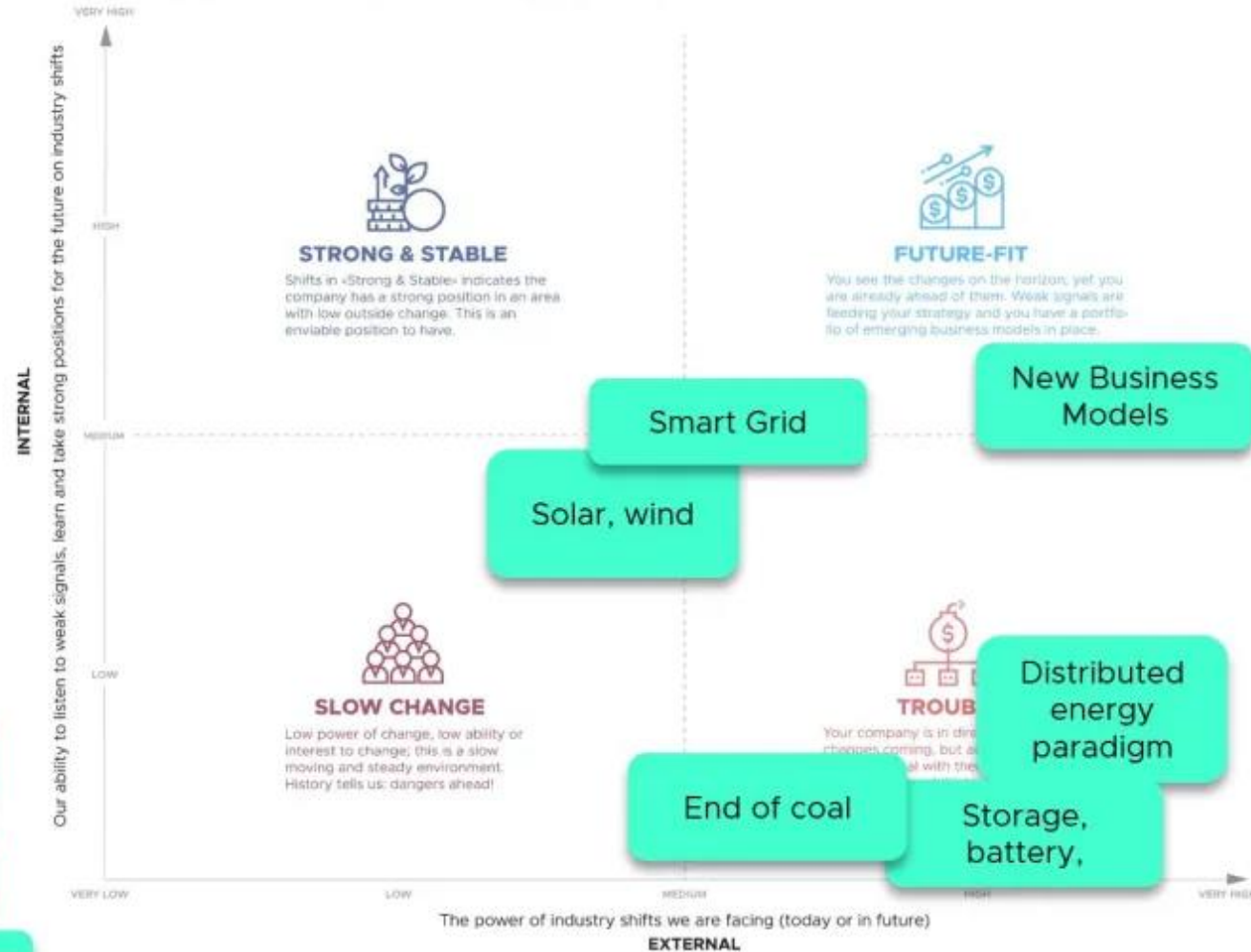
1. What are industry shifts?

Industry shifts are deep, structural changes to an industry, industry norms or how an industry operates. Often, these take place over 10+ years before they fully materialize. By industry leaders and experts, these shifts are rarely taken seriously as they are <<not how things are done in our industry>>. Industry shifts frequently represent significant disruption to incumbents. Often, they are only really understood in retrospect. Examples include the internet in the media industry, digital and social in the photo industry, low-cost airlines, distributed energy paradigms, Uber in transportation, clean energy and electric cars in oil & gas. Future-thinking, innovative firms can identify weak signals, invest to learn and develop new business models on major industry shifts.

2. List the top 3 - 5 industry shifts your industry is facing or expect to be facing in the future



3. Place your 3-5 industry shifts into the Industry Shifts Map below.



Scenario planning – co je to?

- Definice možných budoucích stavů
- Nejedná se o předpověď
- Budoucnost je nepredikovatelná, ale příčina a následek stále platí, což omezuje rozsah možných stavů budoucnosti.
- Např. pokud považujeme globální oteplování za realitu, bude růst hladina moří; omezení soukromého cestování povede k omezení trhu s ubytováním v motelích; existence aut bez řidičů povede k poklesu poptávky po řidičích taxislužeb
- Spojeno s Workshopy– diskuse nad scénáři
<https://youtu.be/l4MDcGYif4k>

Scenario planning - dopad

- +Vyvarování se značnému spoléhání na spolehlivost dat, predikci
- +Pomáhá se připravit na budoucnost
- +Způsob testování předpokladů
- +Podporuje učení se v organizaci
- +rozvoj vize, flexibility a monitorování prostředí
- Potřeba zapojit vytížené liniové manažery, kteří to nemusí vidět jako důležité
- Málo zaměřené na širší kontext rozhodování
- Příliš velký spoleh na měkká data
- Čas a zdroje potřebné pro výzkum a analýzu

Scenario planning – Shell case

Původ ve vojenské strategii

Poprvé použito v 70.tých letech společností Shell

Příprava na ropné cenové šoky a hlavní geopolitické změny

<https://youtu.be/jlwzMhDFP2M>

The screenshot displays the Shell Energy and Innovation website. At the top, the Shell logo is on the left, and navigation links for 'Inside Energy', 'About us', 'Investors', 'Media', and 'Shell Global' are on the right. Below this is a main navigation bar with 'Home', 'Motorists', 'Shell Energy', 'Business customers', 'Energy and innovation' (highlighted), 'Sustainability', and 'Careers'. A search icon is on the far right. The 'Energy and innovation' section is open, showing a list of sub-topics on the left: 'The energy future', 'Natural gas', 'Deep water', 'Shale Oil and Gas', 'The role technology plays', 'Entrepreneurs and Start-ups', 'Electricity', 'Make the Future', 'New Energies: building a lower-carbon power business', and 'Digitalisation: Shell joins web summit'. The main content area features a 'Top Stories' section with four articles: 'Our climate ambition', 'Make the Future', 'Cleaner Mobility: The Great Travel Hack', and 'The energy future: Explore Shell's Global Energy Resources'. Below this is a 'Tools' section with a yellow button that says 'Share your idea and transform the energy industry'. At the bottom, a breadcrumb trail reads: 'Shell Global > Energy and innovation > The energy future > Shell Scenarios > What are Shell Scenarios?'. The URL at the bottom left is 's://www.shell.com/energy-and-innovation/natural-gas.html'.

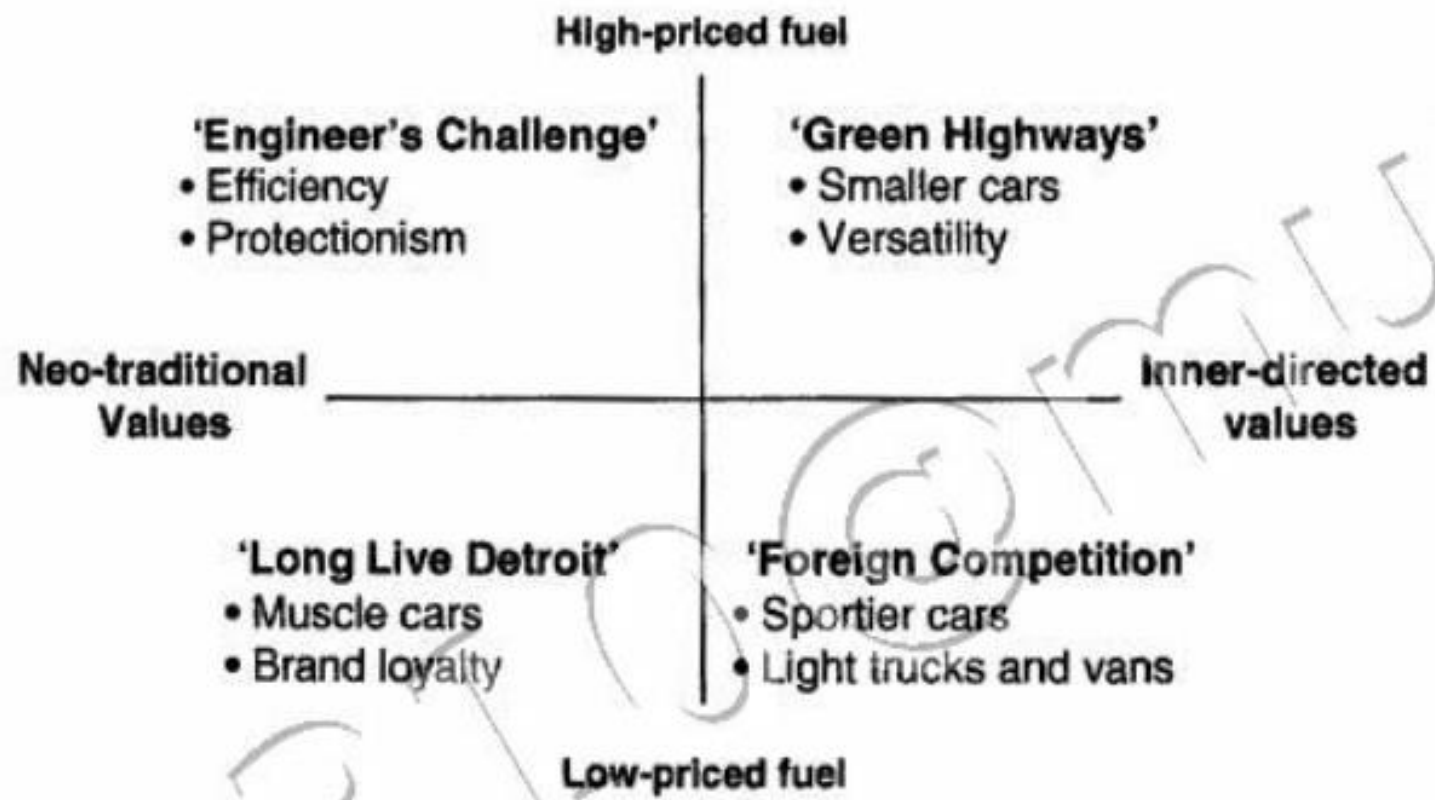


FIGURE 4.3 Scenarios for Entry-level Vehicle Design, Detroit 1980
Source: adapted from Schwartz and Ogilvy in Chapter 4 of: L. Fahey and R. Randall (eds) *Learning from the Future: Competitive foresight scenarios* (Chichester: John Wiley, 1998). Copyright © 1998 John Wiley & Sons, Incorporated. Reproduced with permission¹³.

Roadmapping (Innovation roadmap)

- Využívá se při tvorbě strategie
- Vizuální zobrazení kroků, které mají být realizovány pro dosažení strategického cíle podporovaného inovacemi

Innovation Horizon Roadmap

	Short-Term (1 Year)	Mid-Term (2-3 Years)	
Strategic Focus	What is your focus early on?	How will your strategy evolve?	Wh
Markets & Customers	Who are your initial customers?	How will your markets and customers evolve?	Wh
Business Model	What is your initial business model?	How will your business model evolve?	Wh
Distribution Channels	What are your initial distribution channels?	How will your channels evolve?	Wh
Competitive Differentiation	What is your initial differentiation?	How will you sustain differentiation?	Wh
Products & Services	What are your initial offerings?	What are your next gen offerings?	Wh

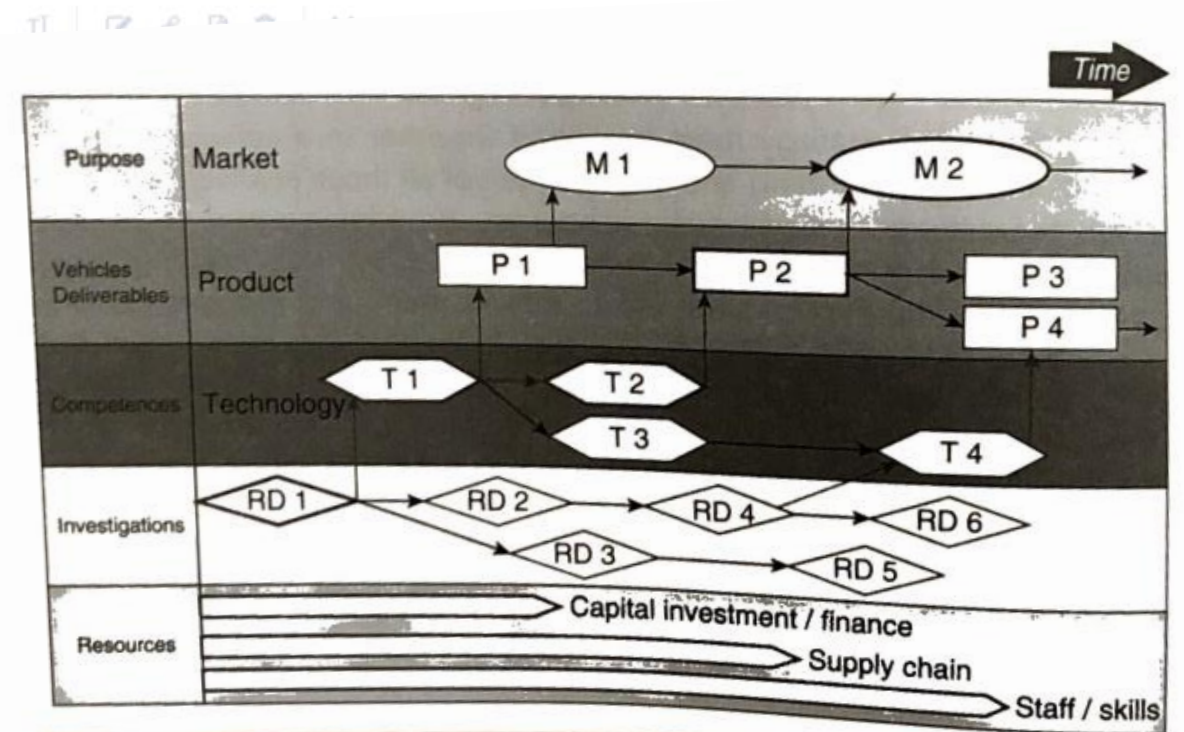


FIGURE 4.6: Generic Roadmap Structure

Source: copyright © Robert Phaal. Reproduced with permission.

Roadmaps / + View

Items Swimlane + Item

	BACKLOG	IN DESIGN	IN PROGRESS	COMPLETED
INFRASTRUCTURE	Library Upgrades: Maria 15% Data Dump: Farah Optimize Server Serialization: Jamie		Update API Documentation: Maria 60%	Database Improvements: Maria 100%
TESTING			Search Improvements: Alex 1	
STICKINESS	Push Notifications: Carly	Multi-Account: Omar 1	Reward (Progress Bar): Farah Language Localization: Farah	Help Bot: Alex 1
IMPROVEMENTS	Update Navigation: Farah 80%	Single Sign-On: Omar 80%	Reskin Shopping Cart: Jamie Guest Checkout Improvement:	
NEW FEATURES	iOS App: Alex 2 Android App: Maria 100%	Two-Day Shipping: Jamie 20% User Avatar: Jamie	Forgot Password Improvement:	

Roadmaps / 2020 Product Strategy / Timeline view + View

Items Timeline + Item

	2020 Q1	2020 Q2	2020 Q3	2020 Q4
MILESTONES	★ Community Site Beta	◆ Android Mobile App Launch	◆ iOS Mobile App Launch	■ Holiday
SELF SERVE	Two-Factor Authentication	Single-Sign On	User Avatar	Multi-Account Management
	Language Localization	Forgot Password Improvement	Reward (Progress Bar)	
MOBILE	iOS App	Android App	Facebook Integration	Push Notifications
	Apple Pay			
WEBSTORE	Responsive eCommerce site	Abandon Cart Widget	Guest Checkout Improvement	Two-Day Shipping
	PCI Compliance	Reskin Shopping Cart		
HELP DESK	Help Bot	Update Navigation	Search Improvements	Accessibility Improvements
INFRASTRUCTURE	Database Improvements	Update API Documentation	Library Upgrades	Data Dump

Open Innovation concept

- ❖ Co je jeho podstatou?
- ❖ Hackatons – marathon (dlouhá, náročná aktivita v krátkém čase) + hack ve významu „exploratory programming“ (průzkumné programování)
- ❖ Důvody:
 - ❖ Vývoj nových produktů a služeb
 - ❖ Inovace starých produktů a služeb
 - ❖ Budování silné komunity
 - ❖ Podpořit zapojení zaměstnanců
 - ❖ Náskok před konkurencí
 - ❖ Minimalizace nákladů
 - ❖ Rychle se dostat na trh
 - ❖ Nový zdroj tržeb
 - ❖ Snížená rizika inovací

Open Innovation iniciativy

❖ GE

- ❖ Innovation Manifesto
- ❖ Ecomagination
- ❖ Unimpossible mission – for creative students
- ❖ First build – designéři, inženýři, kreativci

❖ Coca-Cola

- ❖ Freestyle dispenser machine
- ❖ Lego
- ❖ LEGO ideas – sestavení sady kostek dle návrhu uživatele na web stránkách

❖ Cisco

- ❖ Entrepreneurs in residence – startupy

Crowd sourcing (crowd Innovation)

- Využití hlavně externích zdrojů při hledání nápadů
- Nevhodné při potřebě rychlého řešení
- Může se jednat o různé soutěže, spolupracující komunity,

When and How to Crowdsourcing			
To take full advantage of crowd-powered innovation, you need to understand what kinds of problems benefit most from open innovation and why. Here's a summary of the four main approaches you can use.			
	PURPOSE	CHALLENGES	BEST USE
Contests	Generating high-value solutions to complex or novel problems through large-scale and diverse independent experimentation	The problem must be generalized and stripped of company-specific details	Highly challenging technical, analytical, and scientific problems; design problems; creative or aesthetic projects
Collaborative Communities	Aggregating a large number of diverse contributions into a value-creating whole	The crowd lacks the shared culture and cohesiveness of a company, making it harder to control; intellectual property can't be protected	Customer support communities; wikis; open-collaboration projects for information and software products with complementary assets inside the firm; FAQs
Complementors	Encouraging innovative solutions to users' many different problems with your core product	It can be technologically daunting to provide access to the functions and information in the core product while protecting your assets	Open operational, product, or marketing data initiatives; content mashups; apps
Labor Markets	Efficiently and flexibly matching talent to discrete tasks	Identifying which problems to farm out and who in the organization will manage the labor pool may be difficult	Well-established categories of work that can be clearly described and evaluated; human computation; repeated tasks