

IT Architekt



storaenso

THE RENEWABLE MATERIALS COMPANY

AGENDA



Role architekta

Modelovací jazyky

Softwarová architektura

Gartner

Nástroje



KDO TO JE IT ARCHITEK

- Enterprise architekt
- Solution architekt
- Softwarový architekt
- Databázový architekt
- Integrace architekt
- Síťový architekt
- Business architekt
- ...
- jiný architekt



PŘECE JEN DEFINICE



Enterprise Architecture (podniková architektura) – Definování organizace a jejích klíčových prvků

Business architektura – podniková strategie, řízení, organizace a klíčové podnikové procesy

Aplikační architektura – nasazení aplikací, jejich interakcí a jejich vazeb k podnikovým procesům

Datová architektura – struktura a správa zdrojů dat

Technologická architektura – softwarové a hardwarové prostředky



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Cílem je SOUDRŽNOST

Byznysu a informačních systémů

Technologií mezi sebou

Přeneseně i týmů a lidí mezi sebou

JAK HO POZNÁME



- **Přehledový a přesahový přístup**
- **Má empatii pro různé stakeholdery**



CO TEDY ARCHITEKT DĚLÁ

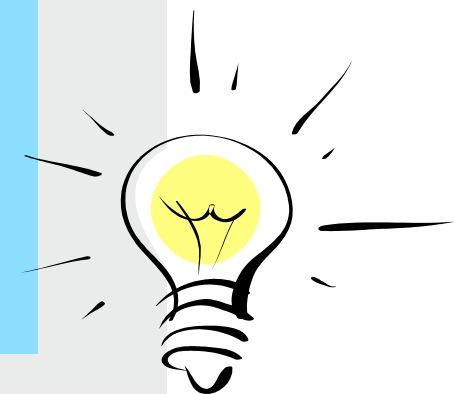
Pochopit, navrhnout a zastřešit

Účel,
požadavky uživatelů
a zadavatelů

Porozumět prostředí,
závislostem, historii,
výhodám atd.

Zauvažovat nad
technologickými trendy

Navrhnout řešení



O ČEM SI POVÍDAJÍ PŘED PROJEKTEM



Business

Podpora podnikání
Přínosy pro firmu
Návratnost investic

Projektový manažer

Rozpočet
Termíny

Technické týmy

Varianty řešení
Podpora

Technologie

Co je nového
Co je k dispozici



JAKÉ JSOU VÝSTUPY DISKUZÍ



Business

Obchodní model
(business) Funkcionalitu
Return of Investment (ROI)

Projektový manažer

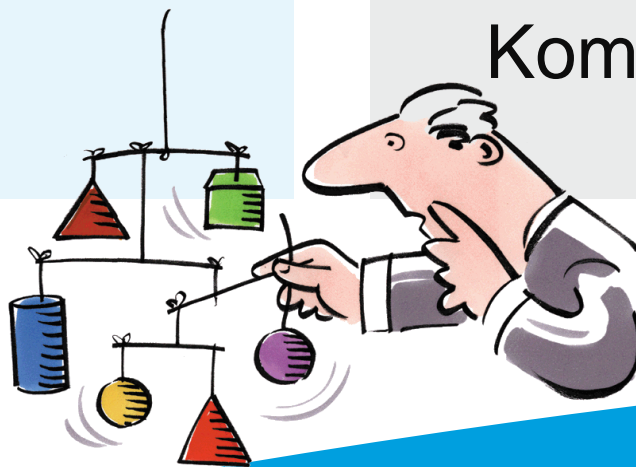
Definice projektu
Harmonogram
Skladbu týmu

Technické týmy

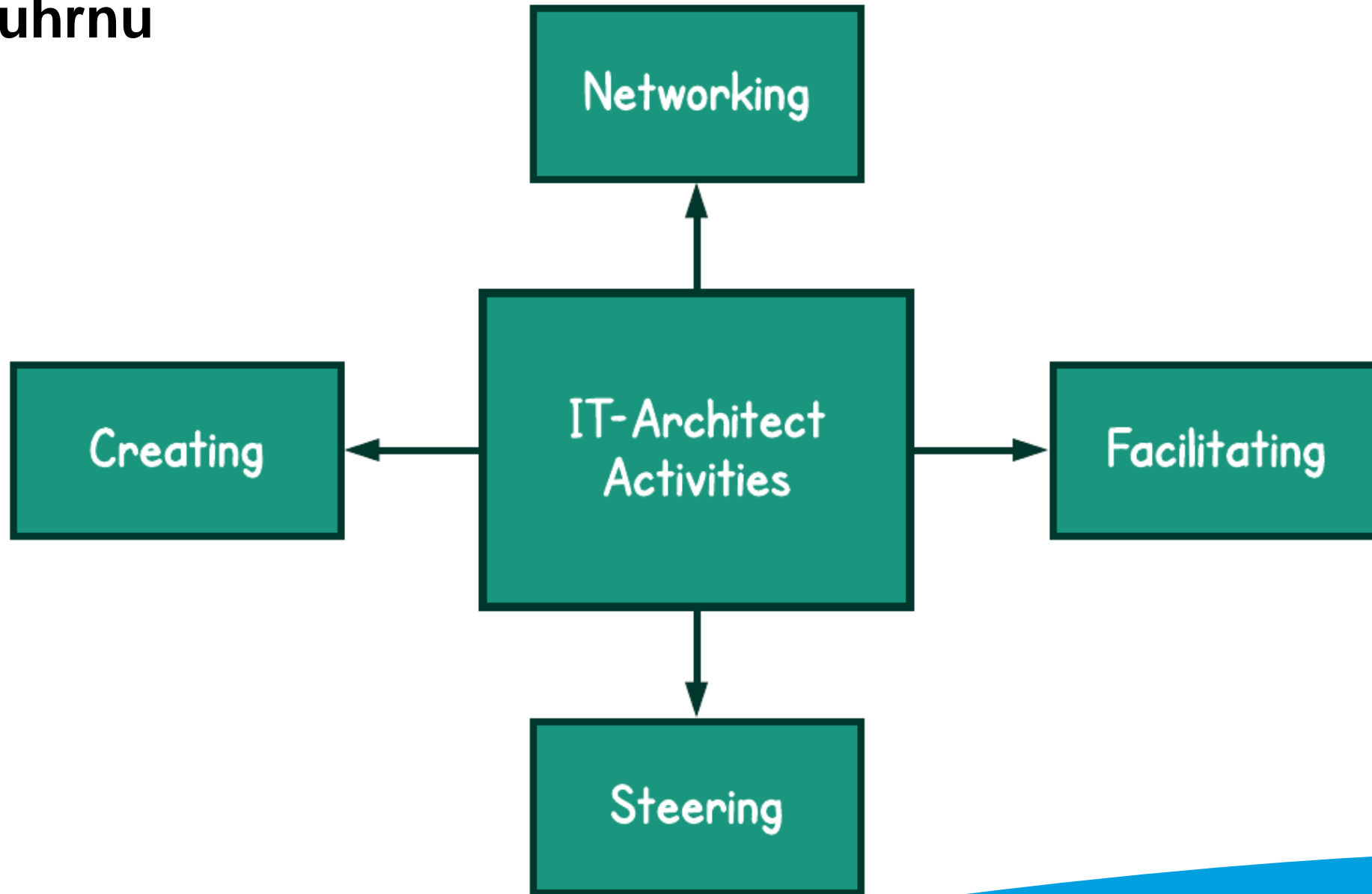
Specifikace
Způsob testování

Technologie

Infrastruktura
Komponenty



V souhrnu



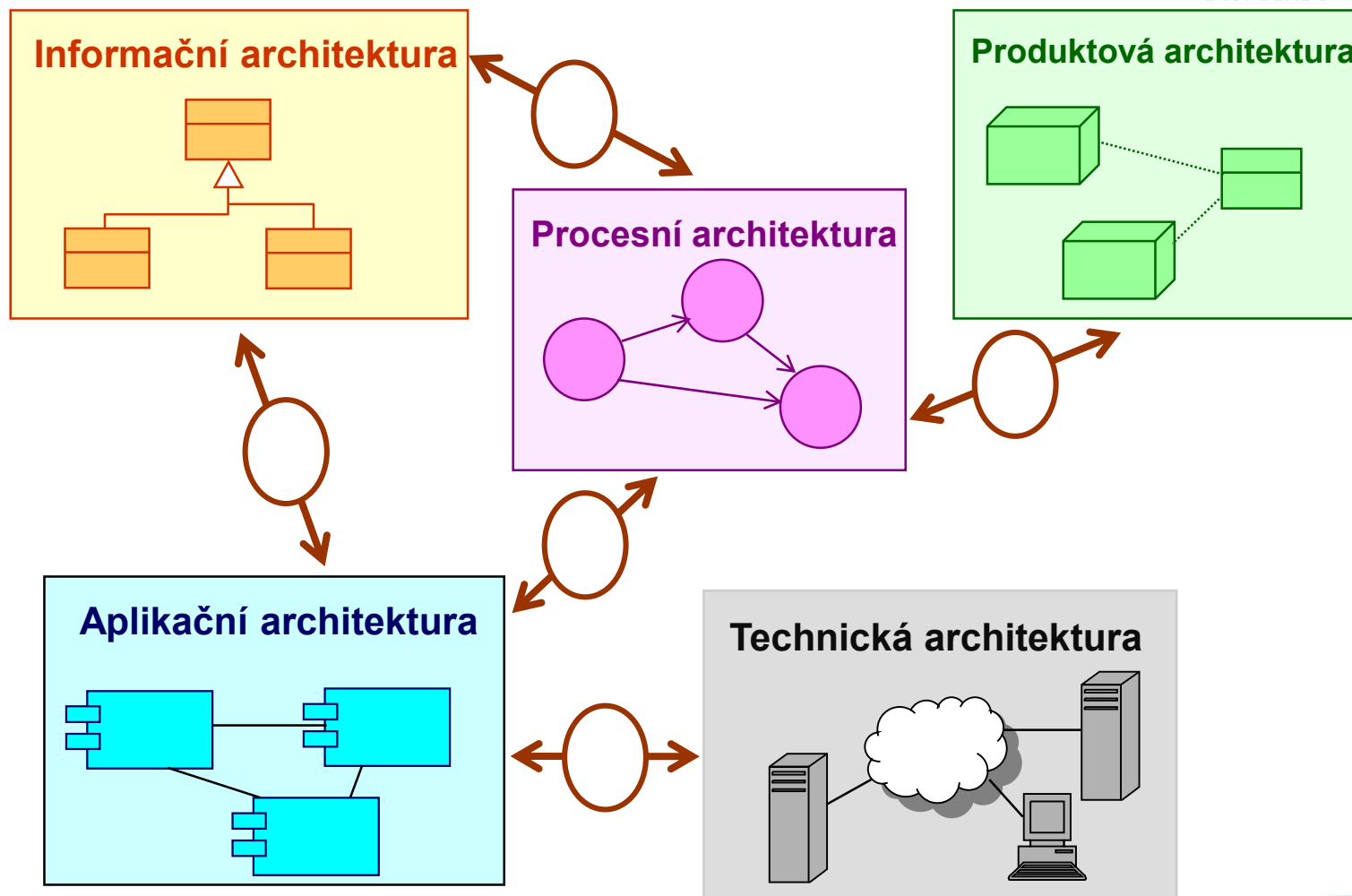
JAK SE DOROZUMĚT?



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- CANVAS
- BPMN
- ARCHIMATE
- UML
- HYPE CYCLE
- MAGIC QUADRANT

...



MODELOVÁNÍ

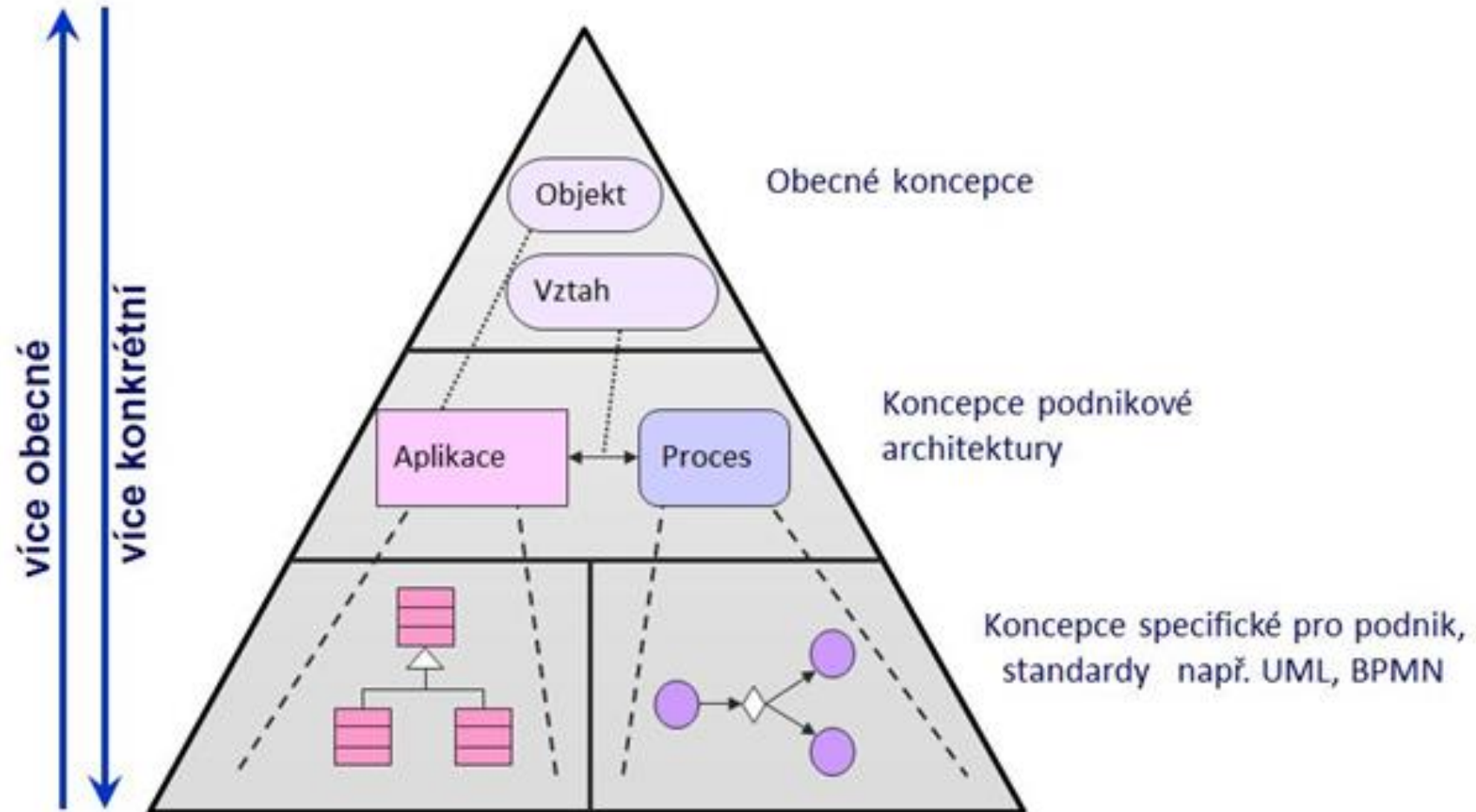


- CANVAS
- BPMN
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- MAGIC QUADRANT
- ...



MODELOVÁNÍ

- CANVAS
- BPMN
- ARCHIMATE
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- MAGIC QUADRANT
- ...



CANVAS



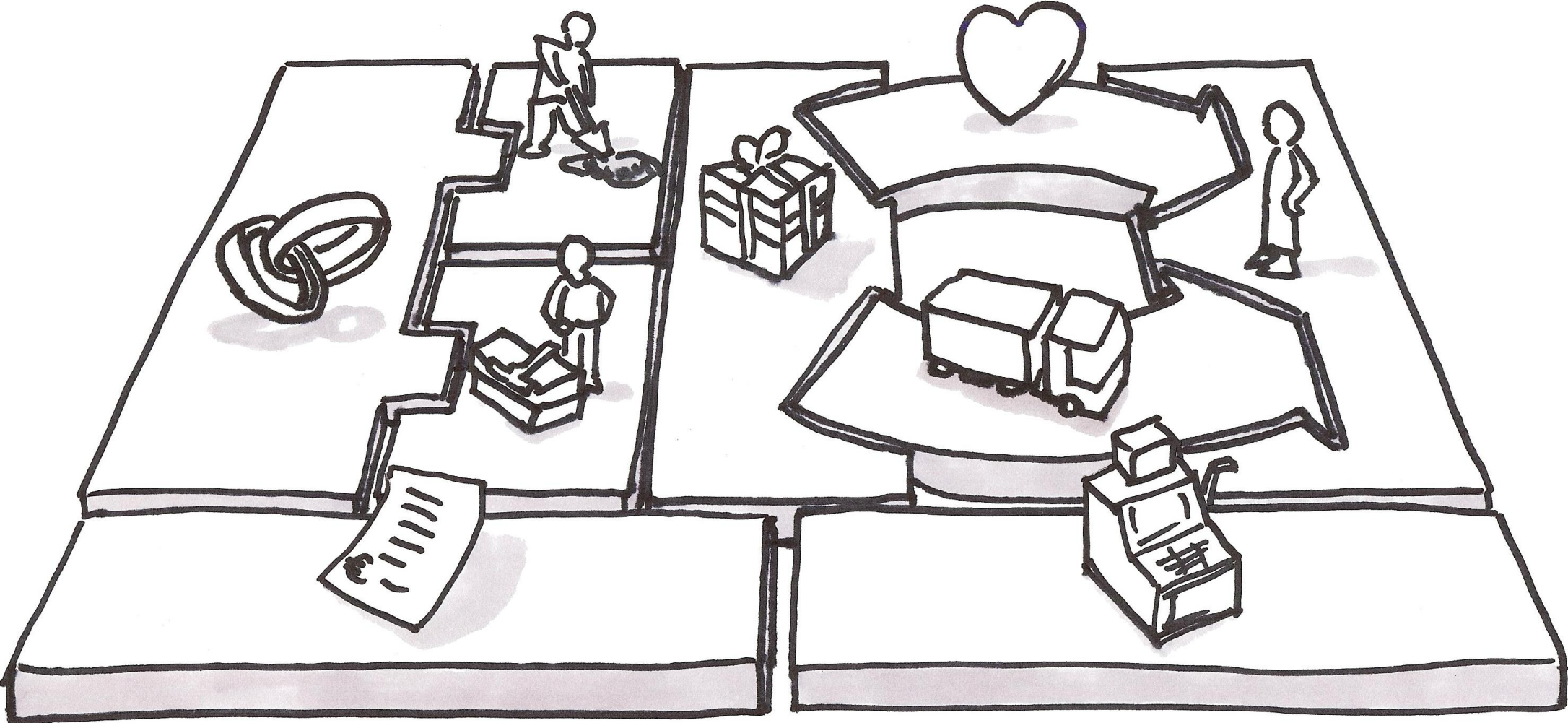
Šablona pro vývoj nebo dokumentaci business modelů.

The Business Model Canvas

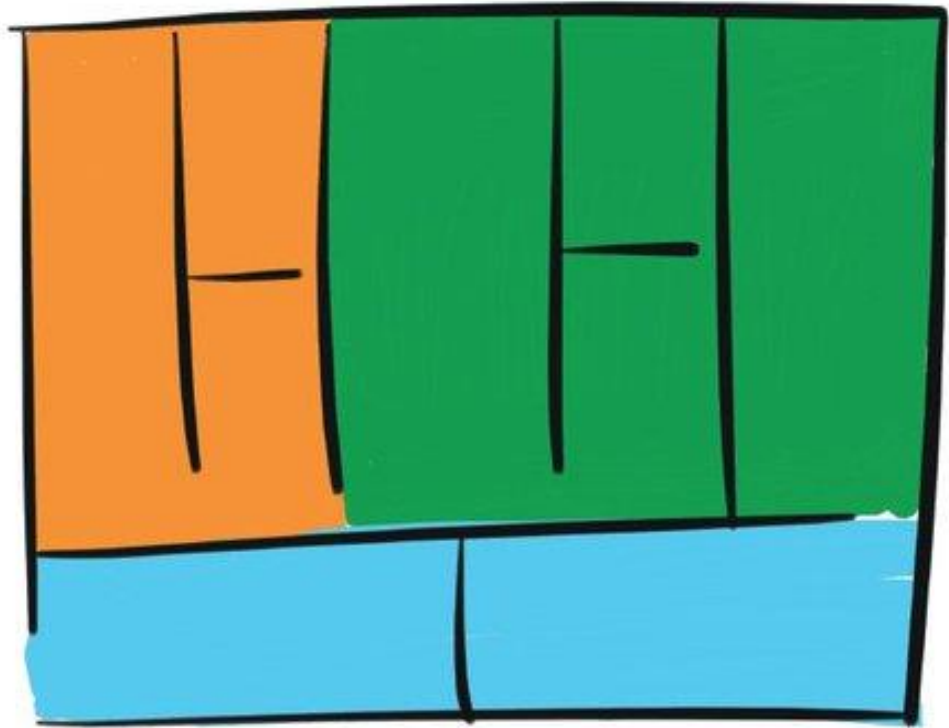
Designed for: _____ Designed by: _____ Date: _____ Version: _____

<p>Key Partners </p> <p>Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <p>REASONS FOR PARTNERSHIP Optimization and economy Production of risk and uncertainty Acquisition of particular resources and activities</p>	<p>Key Activities </p> <p>What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?</p> <p>CATEGORIES Production Problem Solving Platform/Network</p>	<p>Value Propositions </p> <p>What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <p>EXAMPLES Revenue Performance Customization "Selling the job Done" Design Brand/Status Price Cost Reduction Risk Reduction Accessibility Convenience/Usability</p>	<p>Customer Relationships </p> <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p> <p>EXAMPLES Personal assistance Customized Personal Assistance Self-Service Automated Services Communities Co-creation</p>	<p>Customer Segments </p> <p>For whom are we creating value? Who are our most important customers?</p> <p>Mass Market Niche Market Segmented Diversified Multi-sided Platform</p>	
<p>Key Resources </p> <p>What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <p>TYPES OF RESOURCES Physical Intellectual (brand patents, copyrights, etc.) Human Financial</p>		<p>Channels </p> <p>Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</p> <p>CHANNEL PHASES 1. Awareness How do we raise awareness about our company's products and services? 2. Distribution How do we help customers evaluate our organization's Value Proposition? 3. Purchase How do we allow customers to purchase specific products and services? 4. Delivery How do we deliver a Value Proposition to customers? 5. After sales How do we provide post-purchase customer support?</p>			
<p>Cost Structure </p> <p>What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?</p> <p>IS YOUR BUSINESS MODEL Cost Driven (lowest cost structure, low price value proposition, maximum automation, extensive outsourcing) Value Driven (focused on value creation, premium value proposition)</p> <p>SAMPLE CHARACTERISTICS Fixed Costs (salaries, rents, utilities) Variable costs Economies of scale</p>			<p>Revenue Streams </p> <p>For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p> <p>TYPES Asset sale Usage fee Subscription Fees Licensing/Royalty/Leasing Advertising</p> <p>FIXED PRICING List Price Product feature dependent Customer segment dependent Volume dependent</p> <p>PRICING STRATEGIES Reputation (signaling) Pricing management Real-time market Real-time market</p>		

CANVAS



FEASIBILITY
CAN WE BUILD IT?



DESIRABILITY
SHOULD WE BUILD IT?
DO THEY WANT IT?



FIRST
TO TEST!



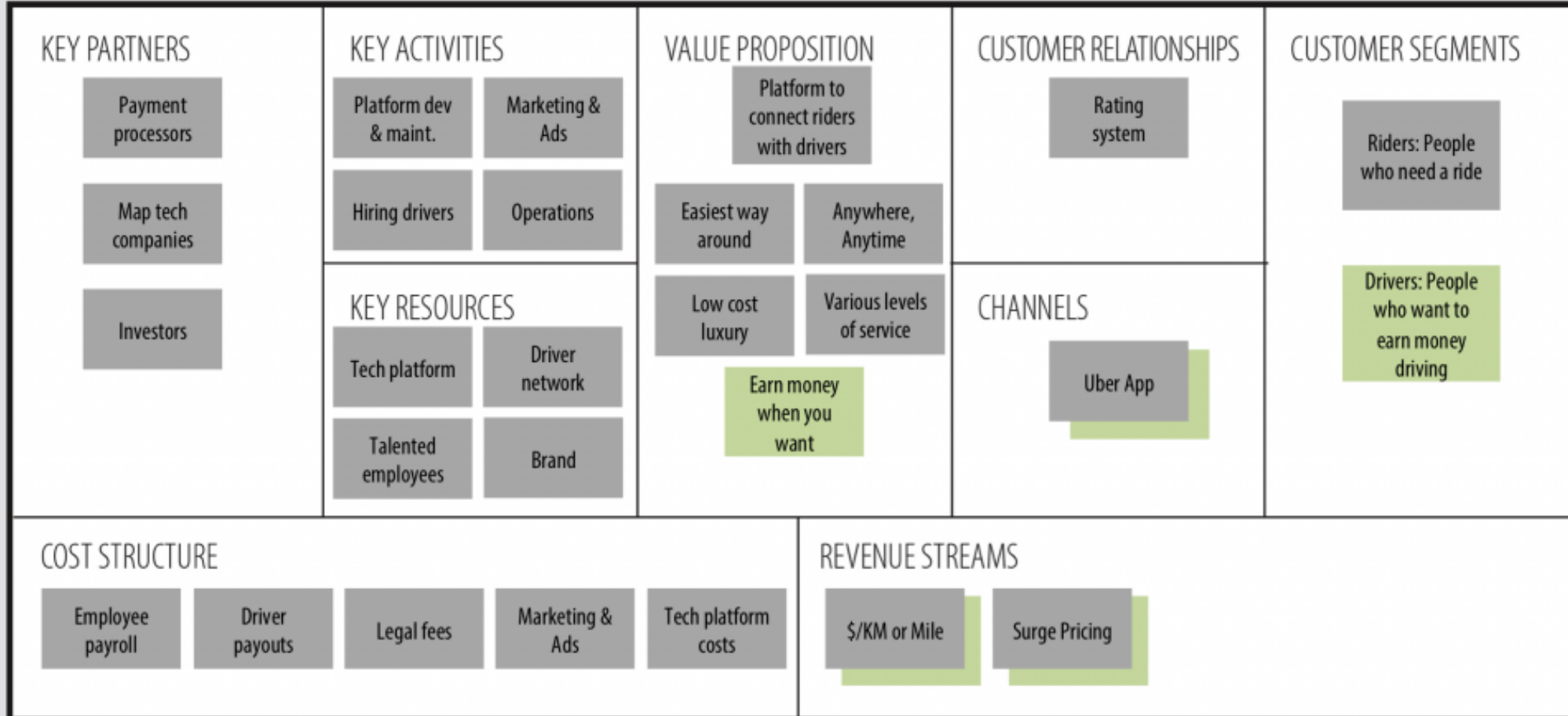
VIABILITY
SANITY TEST

CANVAS



BUSINESS MODEL CANVAS

UBER



DESIGNED BY BUSINESS MODEL FOUNDRY AG

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CANVAS



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The Business Model Canvas

Vytvořeno pro:

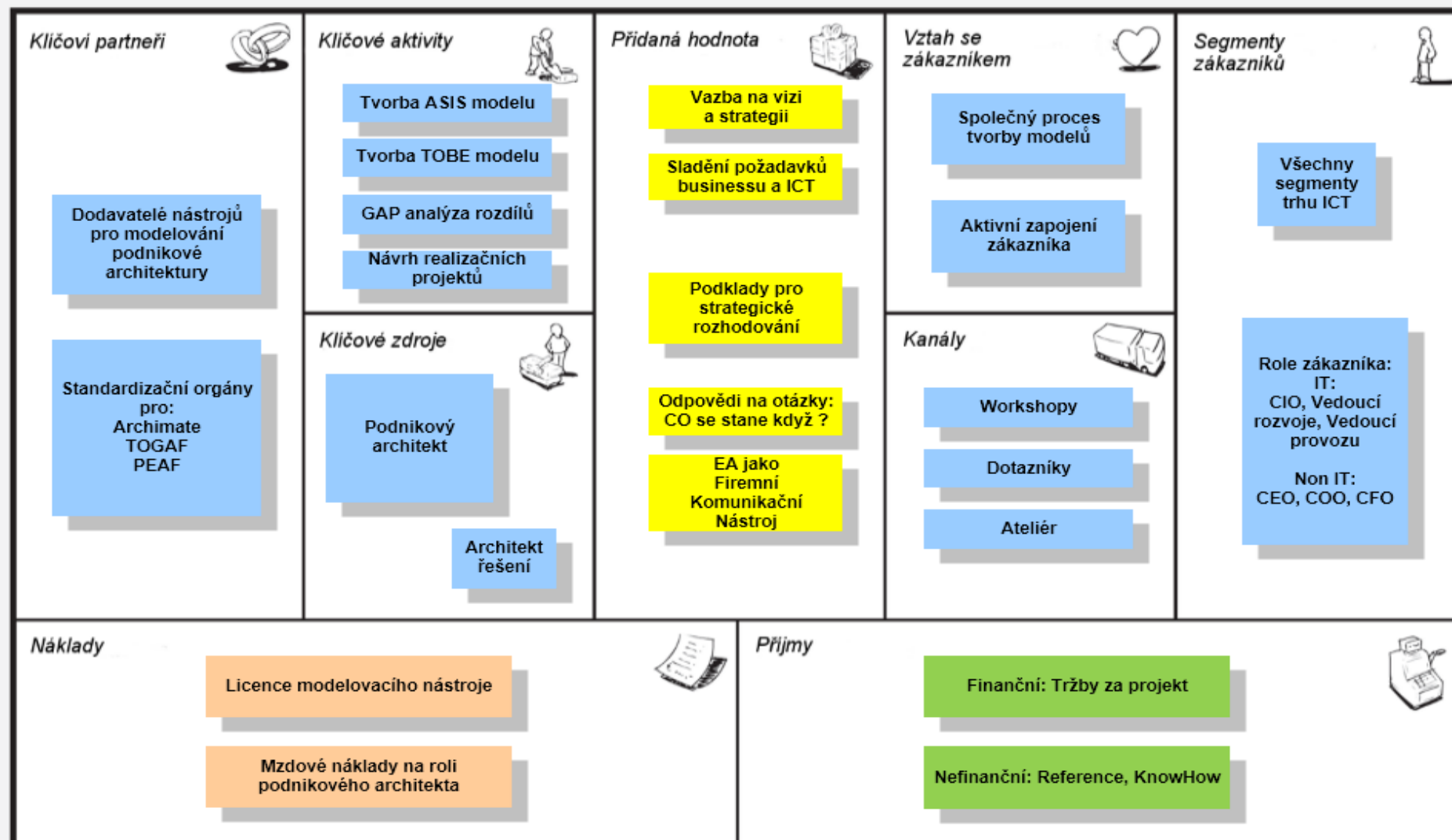
Podniková architektura

Vytvořil:

Petr Klučka

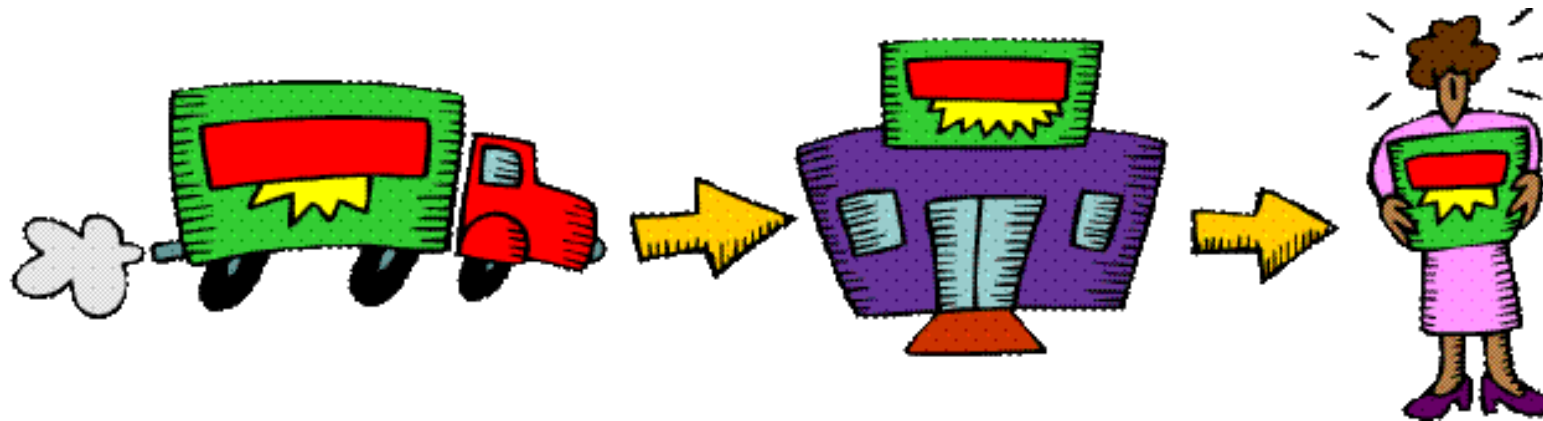
Datum: 21.10.2013

Verze: 0.1



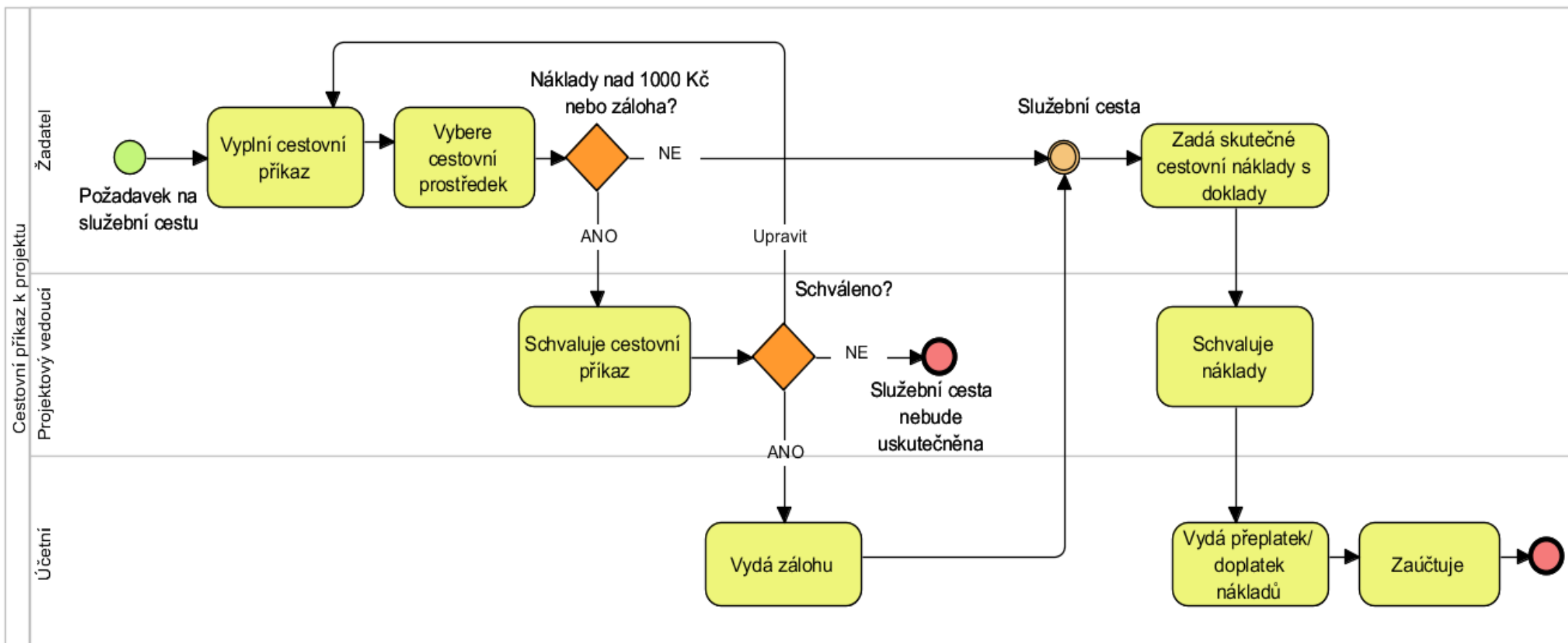
BPMN

Business Process Model and Notation
slouží pro grafické znázorňování podnikových procesů



Business Process Model and Notation

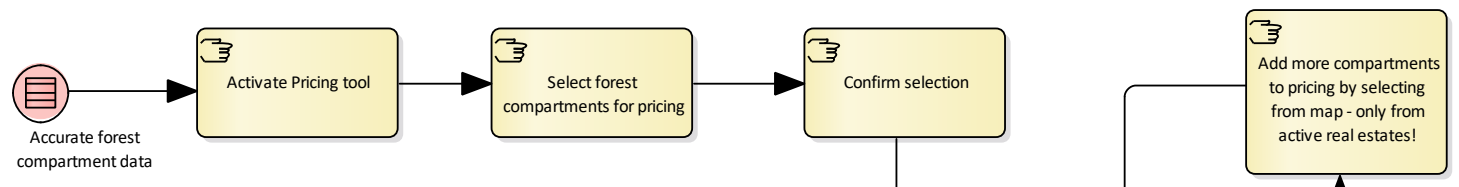
slouží pro grafické znázorňování podnikových procesů





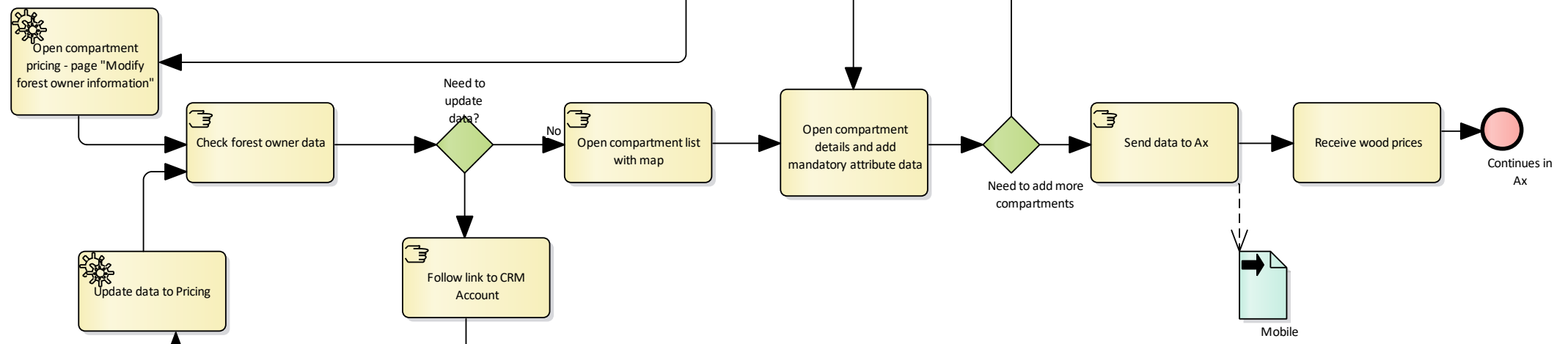
BPMN – Mobile purchasing

MAP

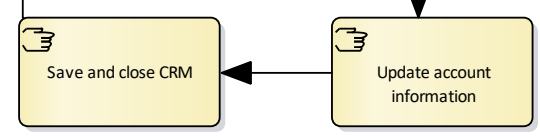


Mobile Desk

Pricing app service



Mobile CRM



BPMN – základní symboly



BPMN 2.0 - Business Process Model and Notation

<http://bpmb.de/poster>

Activities

Task
A Task is a unit of work, the job to be performed. When marked with a [] symbol it indicates a Sub-Process, an activity that can be refined.

Transaction
A Transaction is a set of activities that logically belong together; it might follow a specified transaction protocol.

Event Sub-Process
An Event Sub-Process is placed into a Process or Sub-Process. It is activated when its start event gets triggered and can interrupt the higher level process context or run in parallel (non-interrupting) depending on the start event.

Call Activity
A Call Activity is a wrapper for a globally defined Task or Process reused in the current Process. A call to a Process is marked with a [] symbol.

Activity Markers
Markers indicate execution behavior of activities:

- Sub-Process Marker
- Loop Marker
- Parallel MI Marker
- Sequential MI Marker
- Ad Hoc Marker
- Compensation Marker

Task Types
Types specify the nature of the action to be performed:

- Send Task
- Receive Task
- User Task
- Manual Task
- Business Rule Task
- Service Task
- Script Task

Sequence Flow
defines the execution order of activities.

Default Flow
is the default branch to be chosen if all other conditions evaluate to false.

Conditional Flow
has a condition assigned that defines whether or not the flow is used.

Conversations

A Conversation defines a set of logically related message exchanges. When marked with a [] symbol it indicates a Sub-Conversation, a compound conversation element.

A Call Conversation is a wrapper for a globally defined Conversation or Sub-Conversation. A call to a Sub-conversation is marked with a [] symbol.

A Conversation Link connects Conversations and Participants.

Conversation Diagram

Choreographies

A Choreography Task represents an Interaction (Message Exchange) between two Participants.

A Sub-Choreography contains a refined choreography with several interactions.

A Call Choreography is a wrapper for a globally defined Choreography Task or Sub-Choreography. A call to a Sub-Choreography is marked with a [] symbol.

Choreography Diagram

Events

	Start	Intermediate	End
None: Untyped events, indicate start point, state changes or final states.	Standard	Standard	Standard
Message: Receiving and sending messages.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Timer: Cyclic timer events, points in time, time spans or timeouts.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Escalation: Escalating to an higher level of responsibility.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Conditional: Reacting to changed business conditions or integrating business rules.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Link: Off-page connectors. Two corresponding link events equal a sequence flow.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Error: Catching or throwing named errors.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Cancel: Reacting to cancelled transactions or triggering cancellation.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Compensation: Handling or triggering compensation.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Signal: Signalling across different processes. A signal thrown can be caught multiple times.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Multiple: Catching one out of a set of events. Throwing all events defined.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Parallel Multiple: Catching all out of a set of parallel events.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting
Terminate: Triggering the immediate termination of a process.	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Event Sub-Process Non-Interrupting

Collaboration Diagram

Pool (Black Box)

Gateways

Exclusive Gateway
When splitting, it routes the sequence flow to exactly one of the outgoing branches. When merging, it waits one incoming branch to complete before triggering the outgoing flow.

Event-based Gateway
Is always followed by catching events or receive task. Sequence flow is routed to the subsequent event/task which happens first.

Parallel Gateway
When used to split the sequence flow, all outgoing branches are activated simultaneously. When merging parallel branches it waits for all incoming branches to complete before triggering the outgoing flow.

Inclusive Gateway
When splitting, one or more branches are activated. All active incoming branches must complete before merging.

Complex Gateway
Complex merging and branching behavior that is not captured by other gateways.

Exclusive Event-based Gateway
Each occurrence of a subsequent event starts a new process instance.

Parallel Event-based Gateway
The occurrence of all subsequent events starts a new process instance.

Data

A Data Object represents information flowing through the process, such as business documents, e-mails, or letters.

A Collection Data Object represents a collection of information, e.g., a list of order items.

A Data Input is an external input for the entire process. A kind of input parameter.

A Data Output is data result of the entire process. A kind of output parameter.

A Data Association is used to associate data elements to Activities, Processes and Global Tasks.

A Data Store is a place where the process can read or write data, e.g., a database or a filing cabinet. It persists beyond the lifetime of the process instance.

Swimlanes

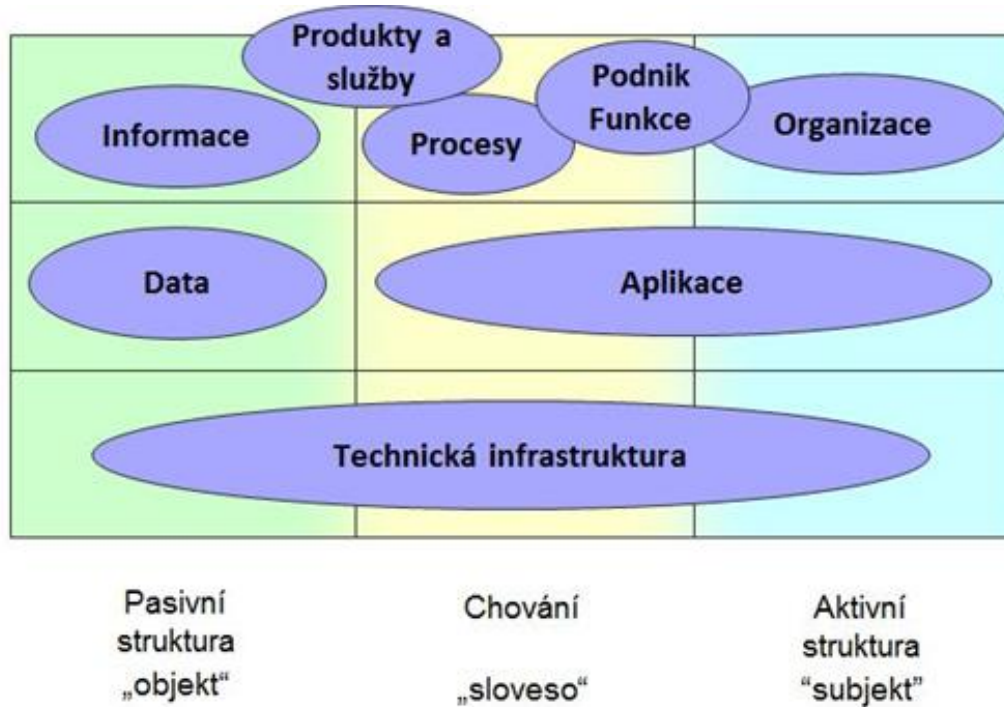
Message Flow symbolizes information flow across organizational boundaries. Message flow can be attached to pools, activities, or message events. The Message Flow can be decorated with an envelope depicting the content of the message.

Pools (Participants) and Lanes represent responsibilities for activities in a process. A pool or a lane can be an organization, a role, or a system. Lanes subdivide pools or other lanes hierarchically.

The order of message exchanges can be specified by combining message flow and sequence flow.

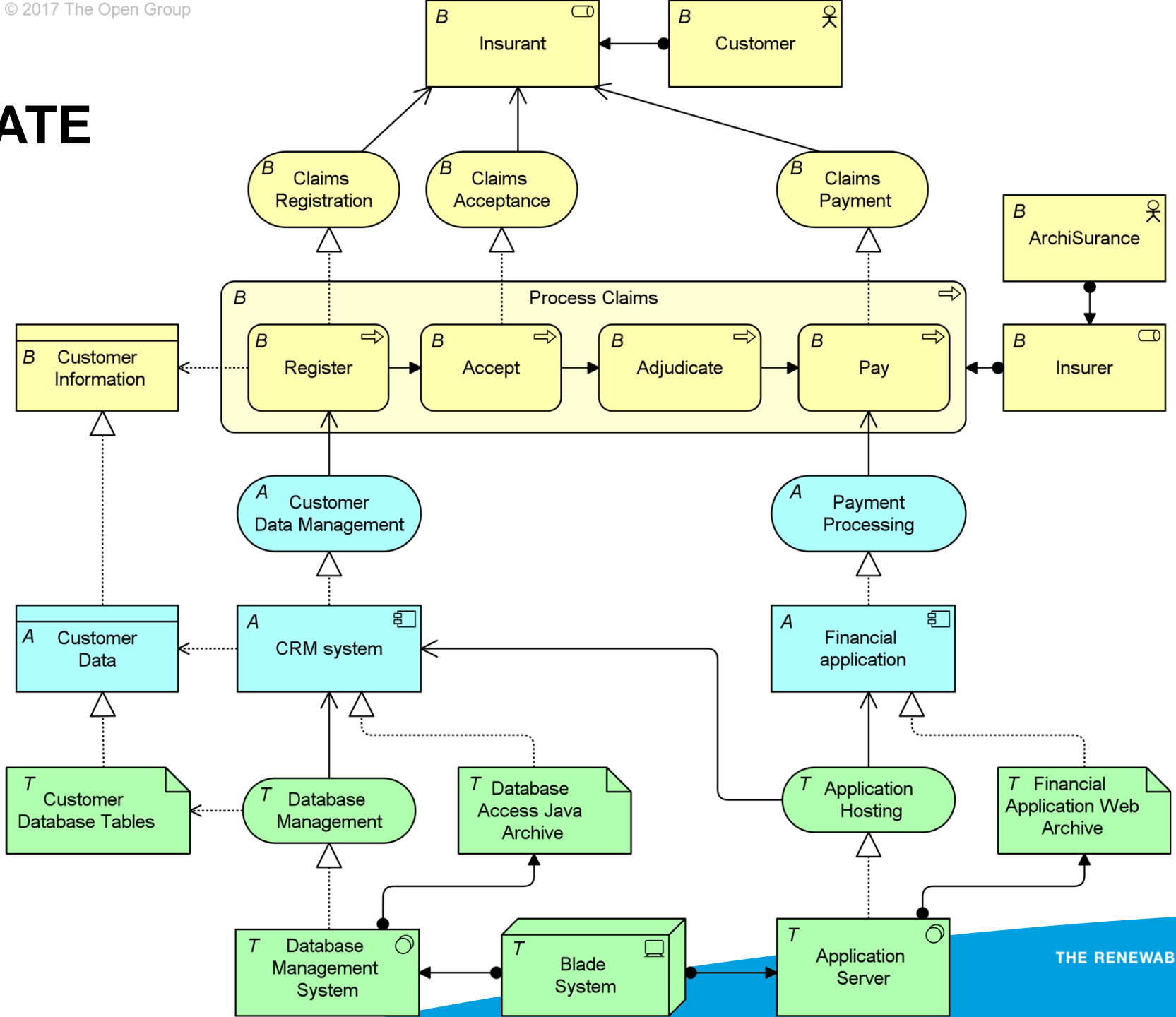
© 2011

ARCHIMATE

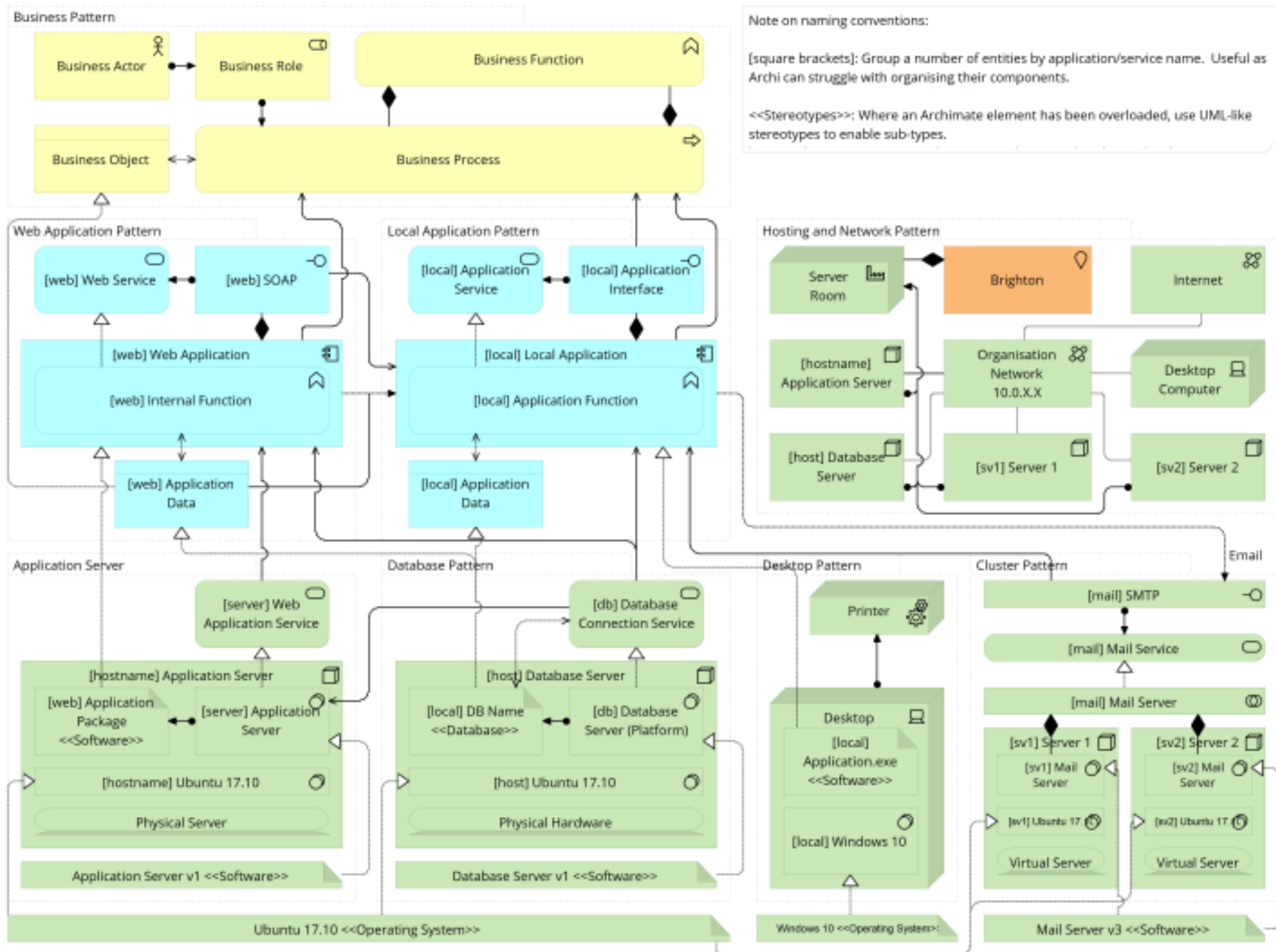


Modelovací jazyk spojující byznys a IT navzájem

ARCHIMATE

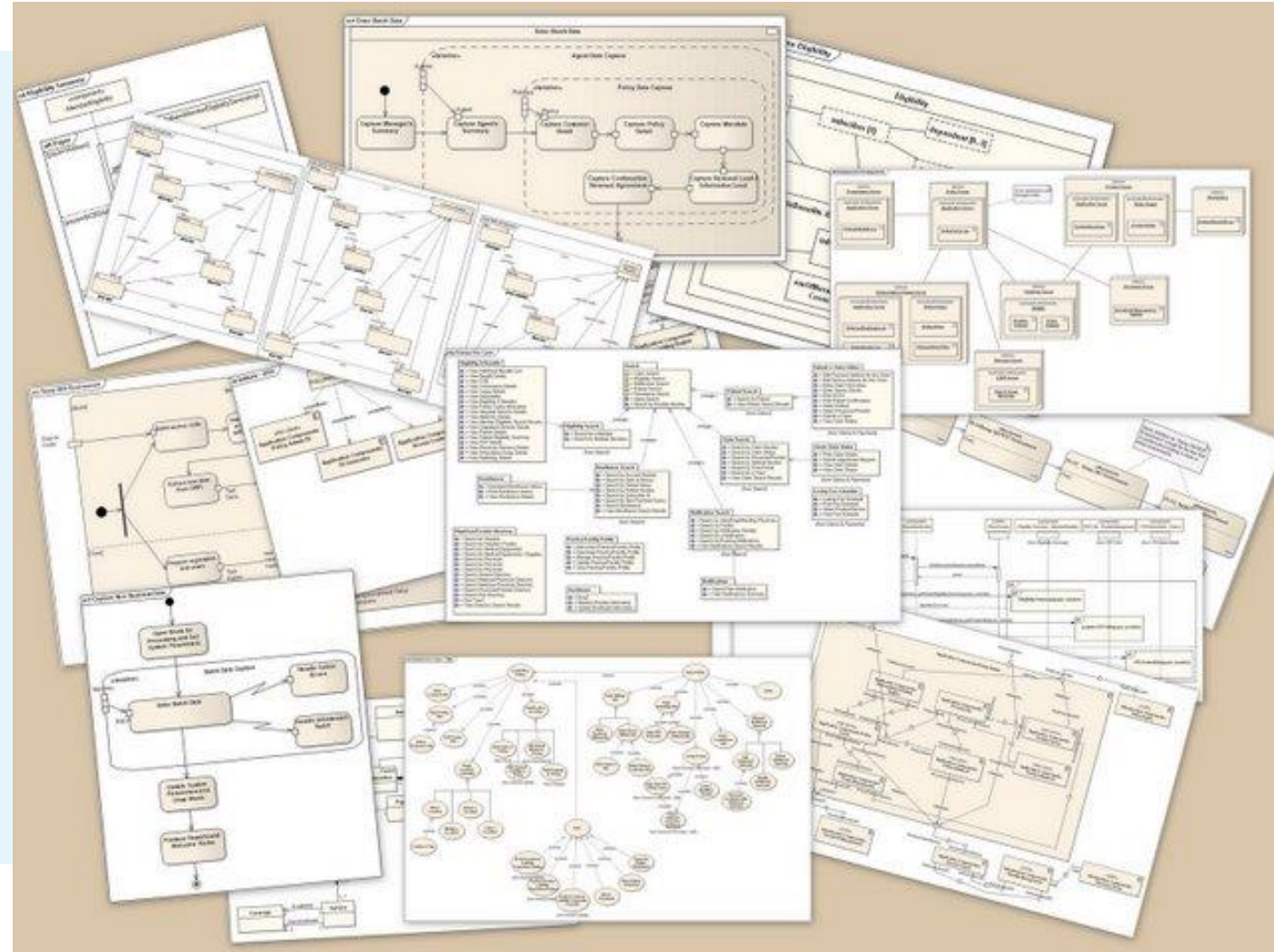


METAMODEL



UML

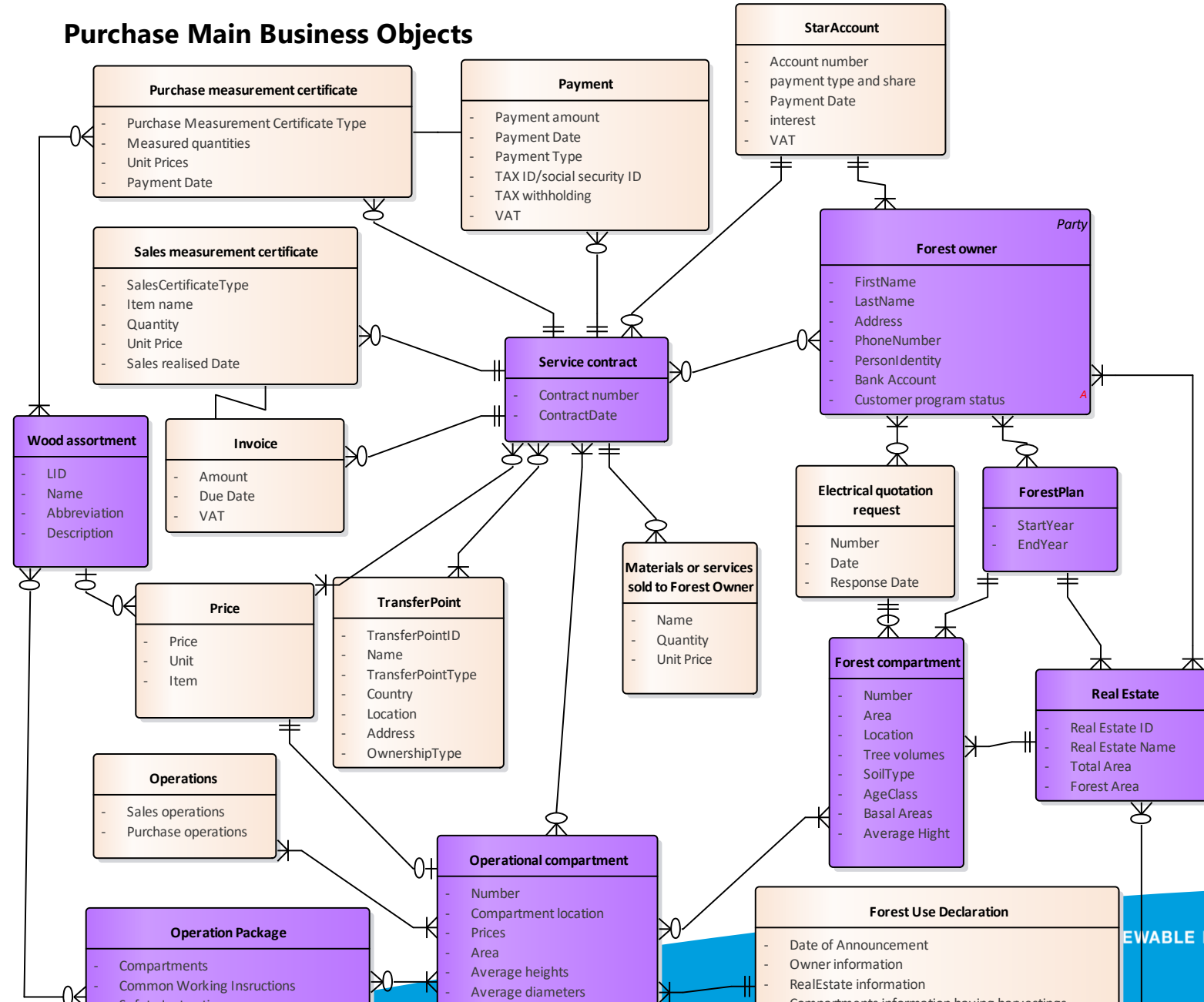
Unified Modeling Language je grafický jazyk pro vizualizaci a navrhování IT systémů.



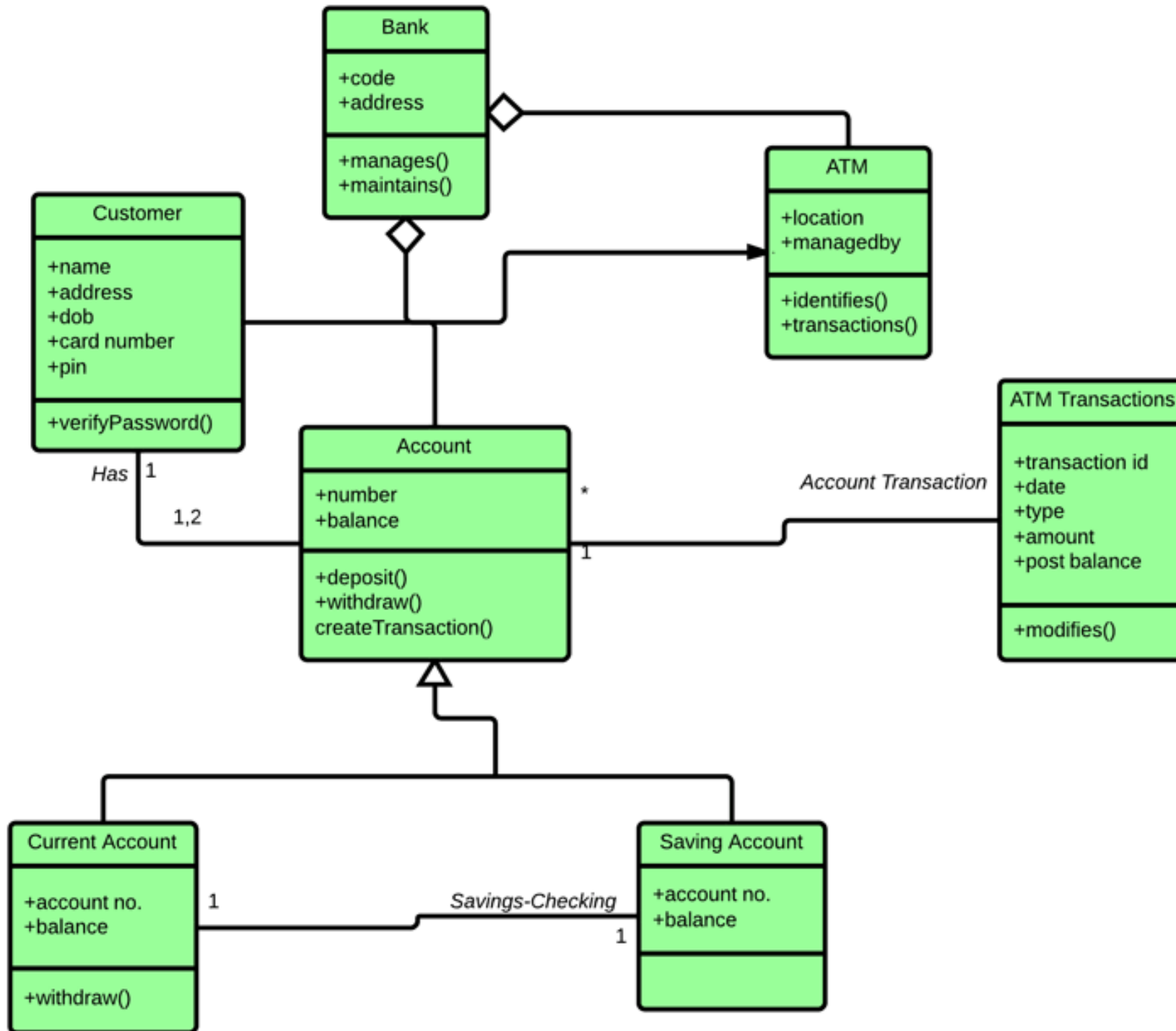
UML

class Purchase Main Business Objects

Purchase Main Business Objects



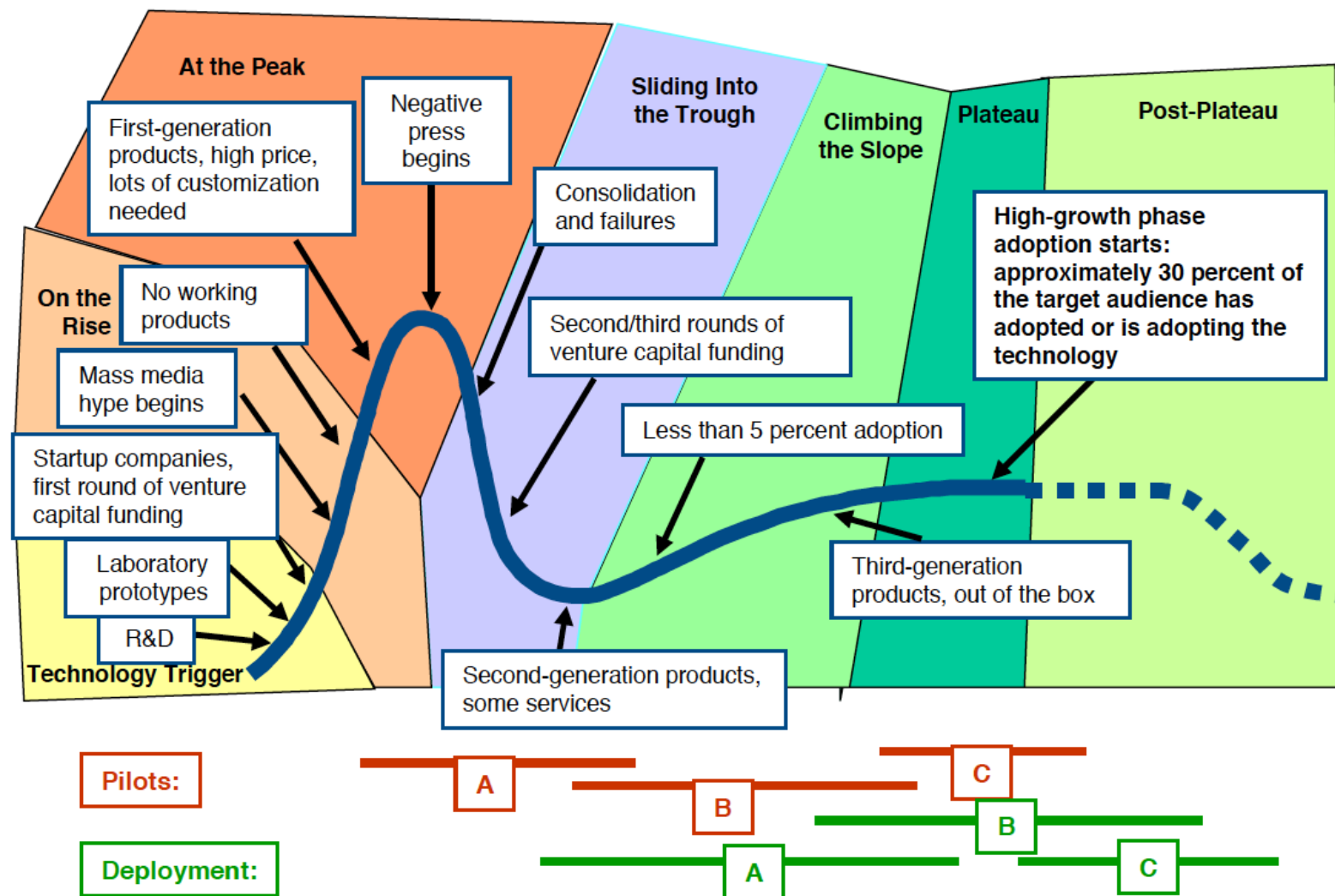
UML



ŽIVOTNÍ CYKLUS TECHNOLOGIÍ



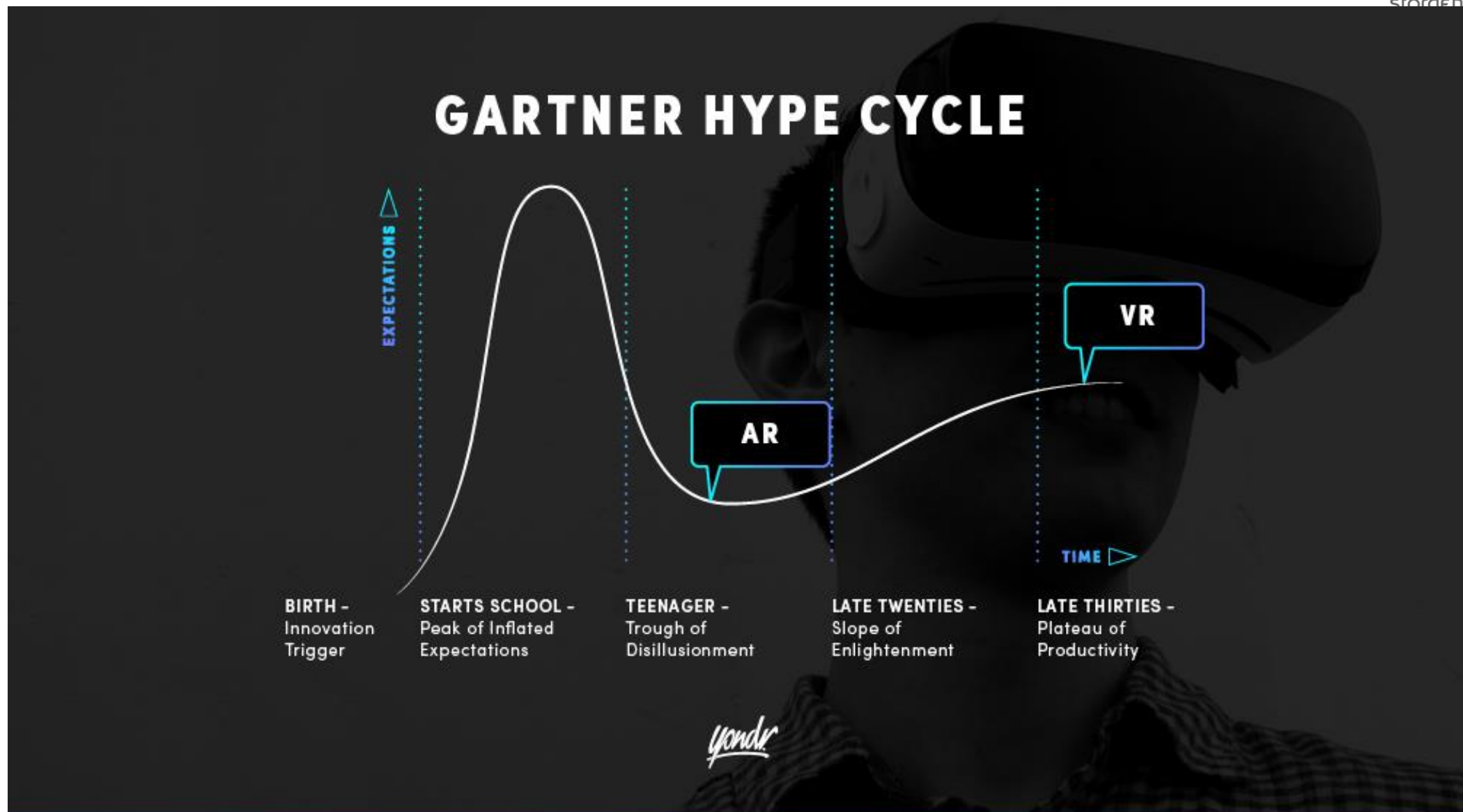
**HYPE CYCLE -
grafické vyjádření
očekávání a užití
technologií -
GARTNER**



ŽIVOTNÍ CYKLUS TECHNOLOGIÍ



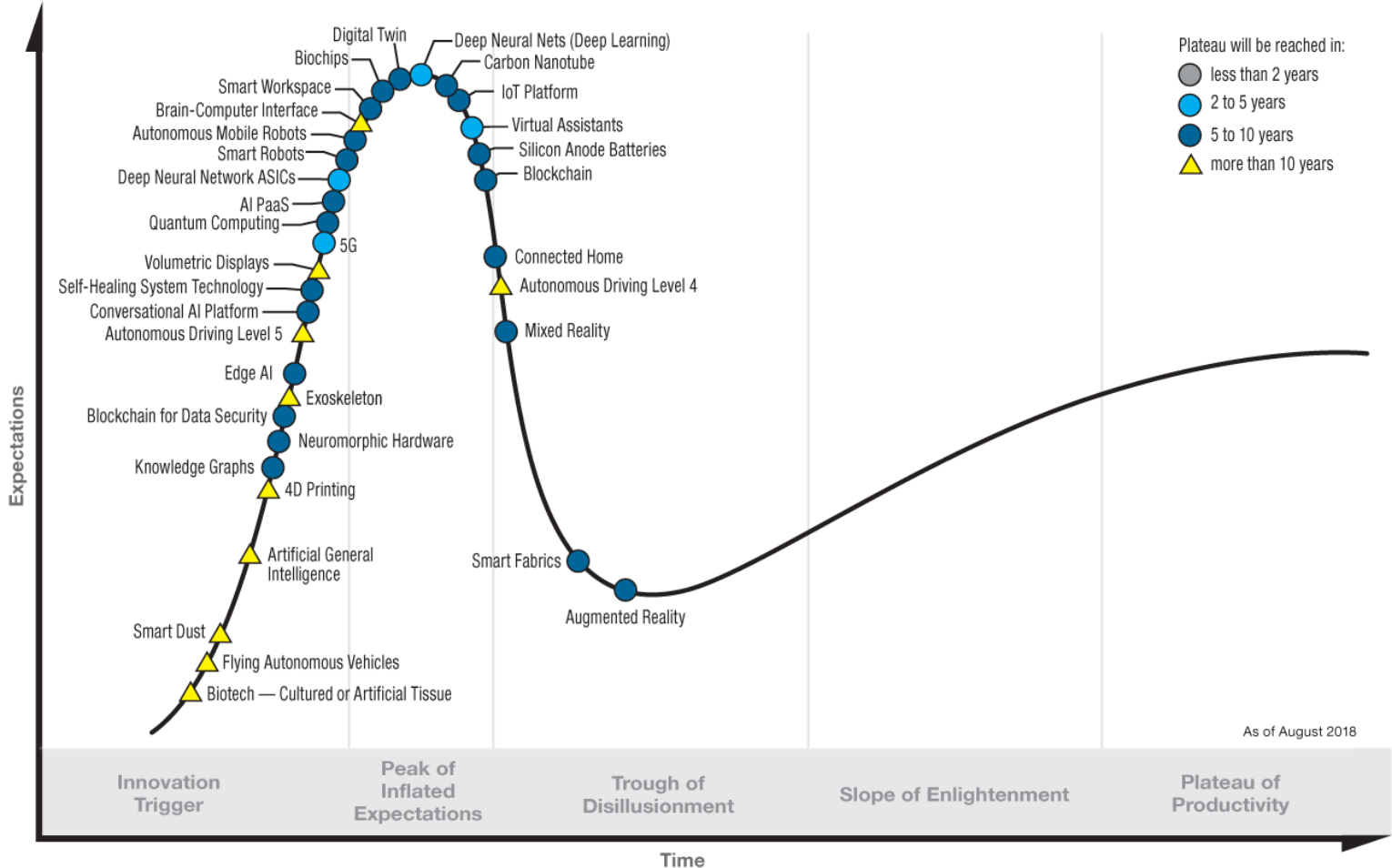
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HYPE CYCLE 2018



Hype Cycle for Emerging Technologies, 2018



POZICE NA TRHU

MAGIC QUADRANT
grafické vyjádření
pozice technologie,
výrobce na trhu -
GARTNER



Magic Quadrant



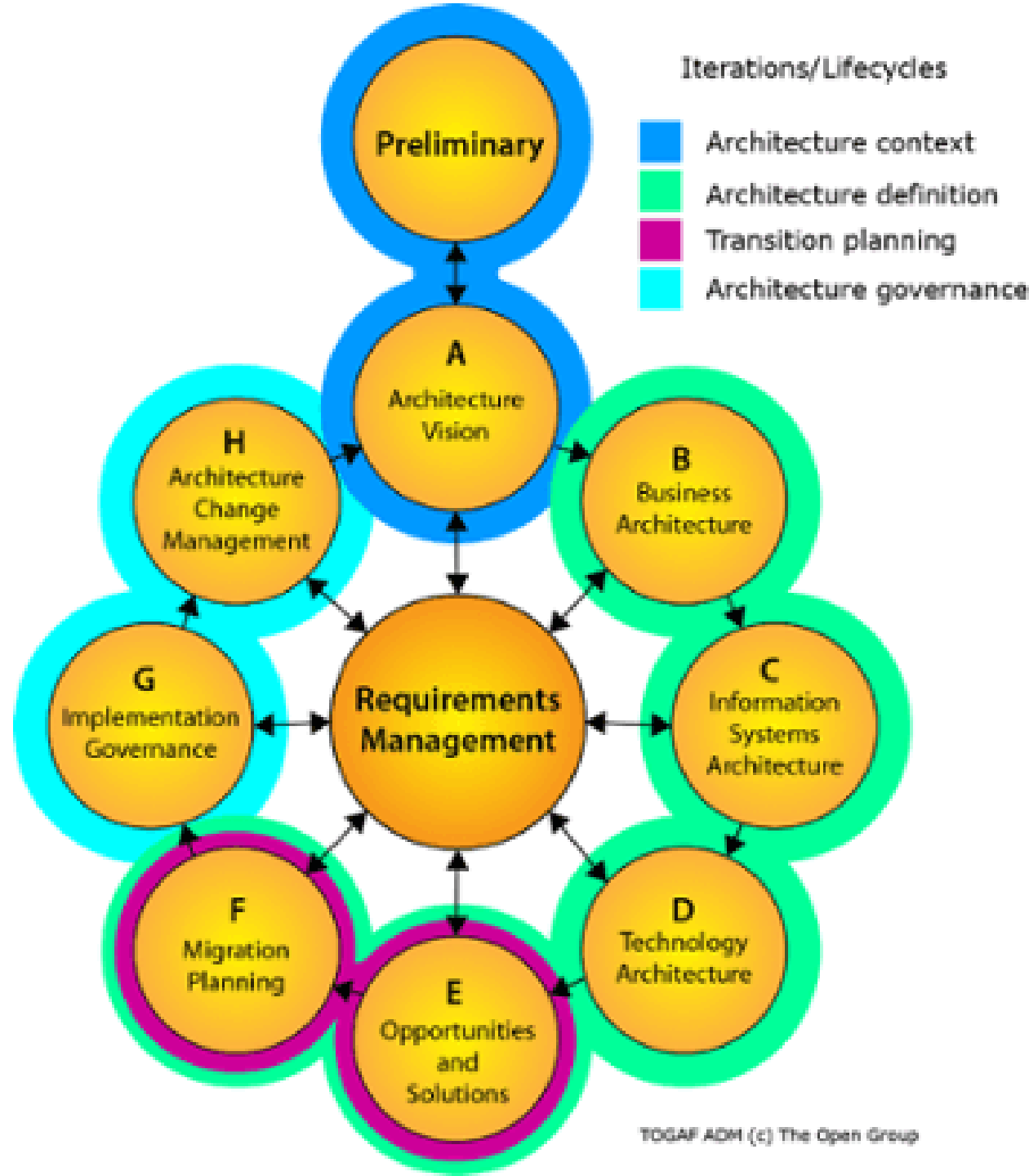
Figure 1. Magic Quadrant for Horizontal Portals



TOGAF

TOGAF je v současné době nejrozšířenějším "standardem" určujícím, co by mělo být součástí popisu organizace a jak by se tento popis měl provádět

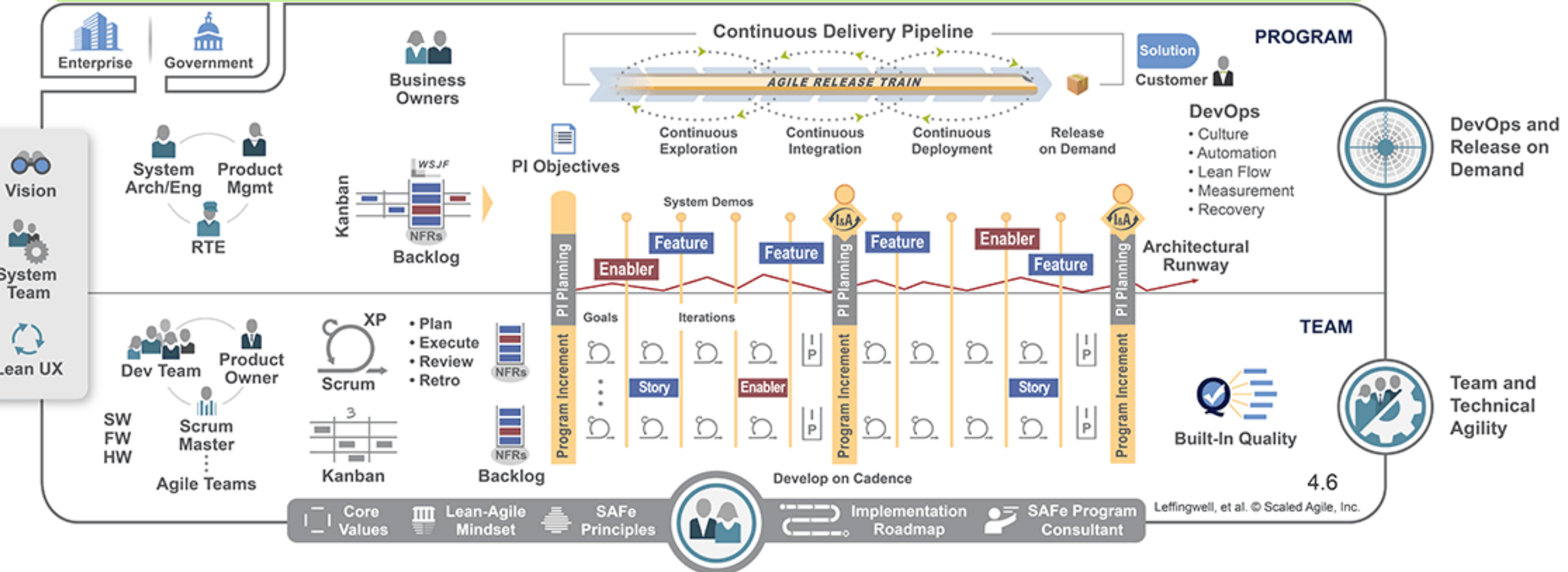
Wikipedie



SAFE



SCALED AGILE FRAMEWORK



Lean-Agile Leadership

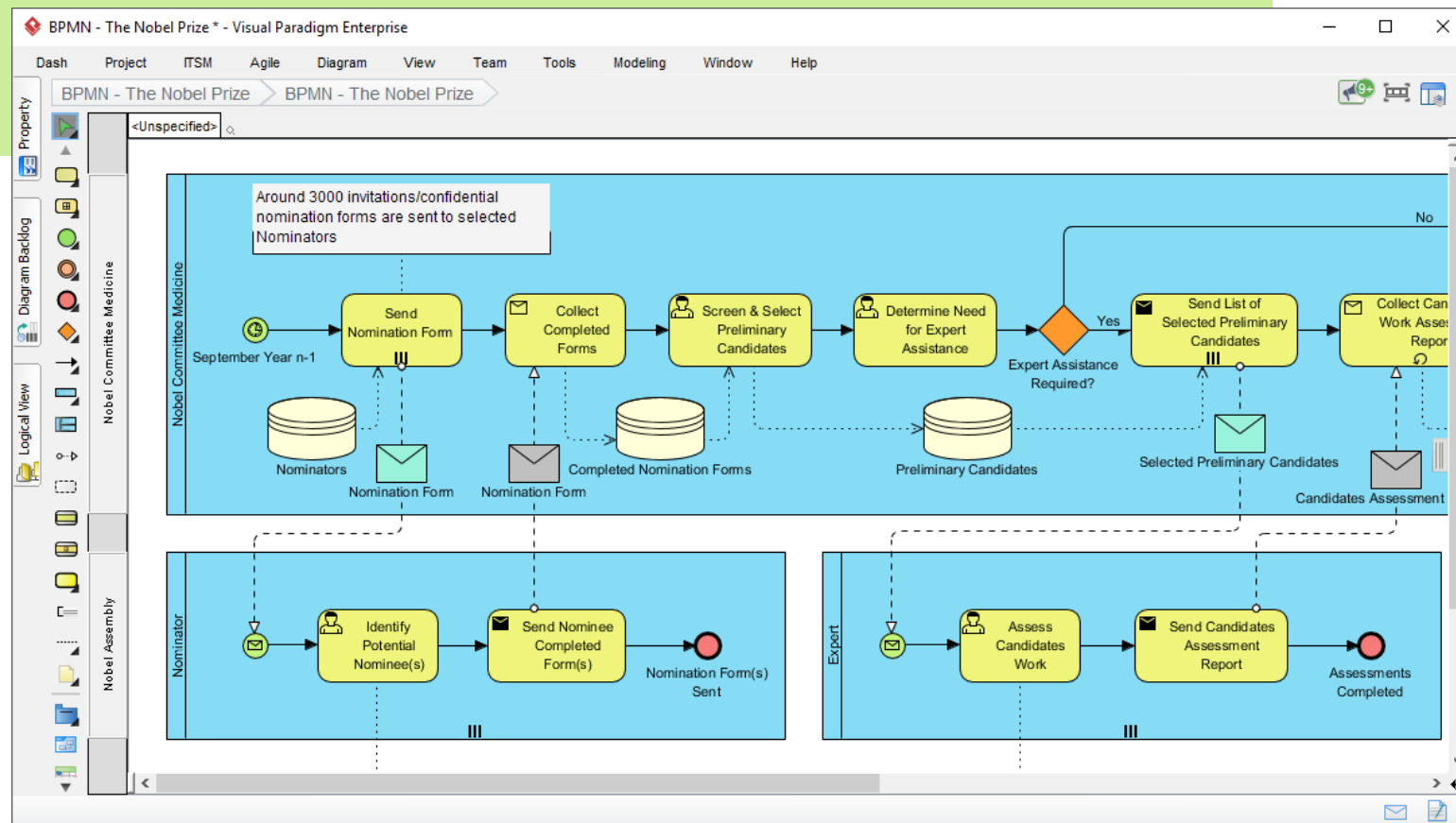
Leffingwell, et al. © Scaled Agile, Inc.

NÁSTROJE



ARENZO

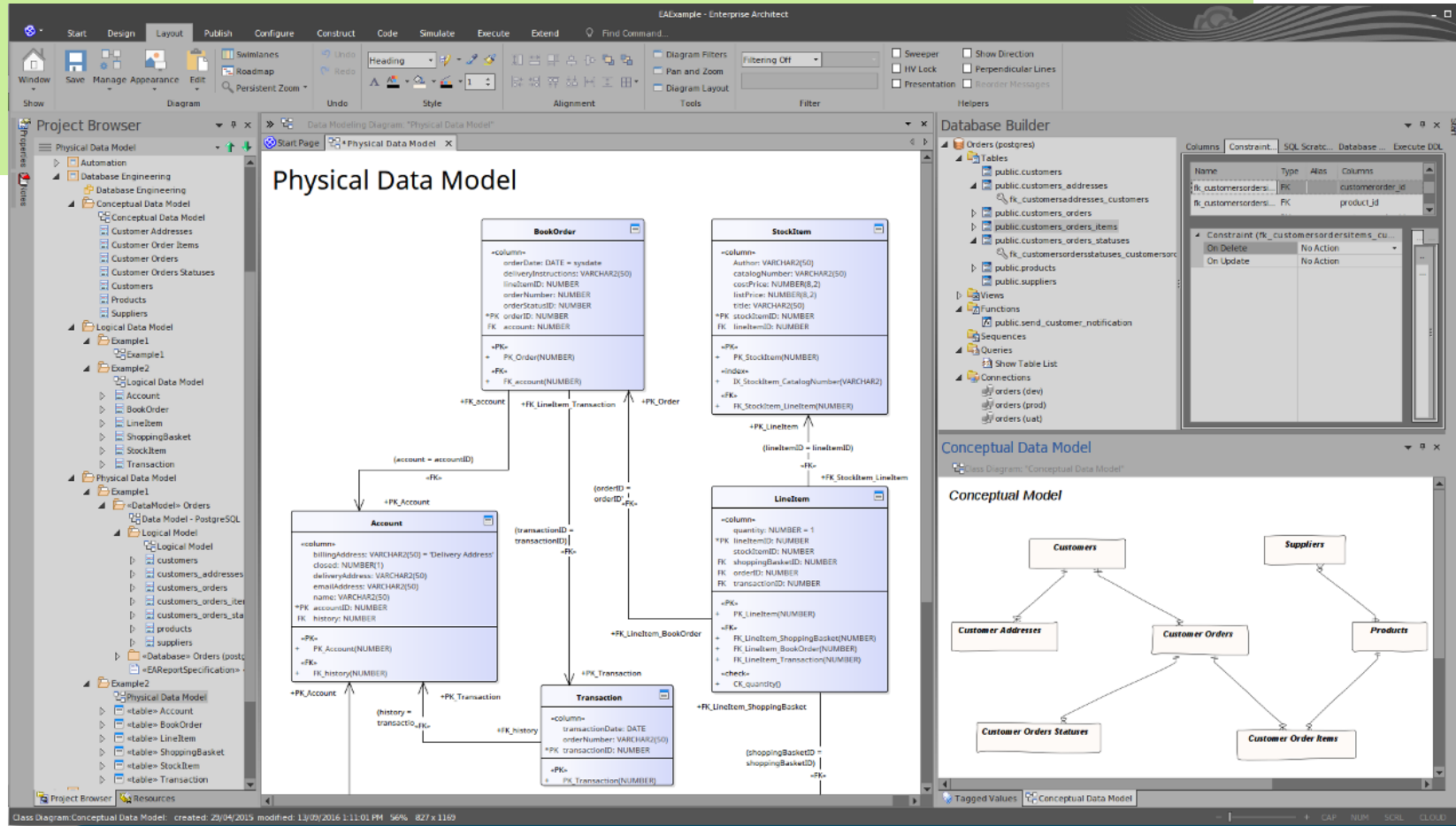
Visual Paradigm www.visual-paradigm.com
Měsíc zdarma



NÁSTROJE



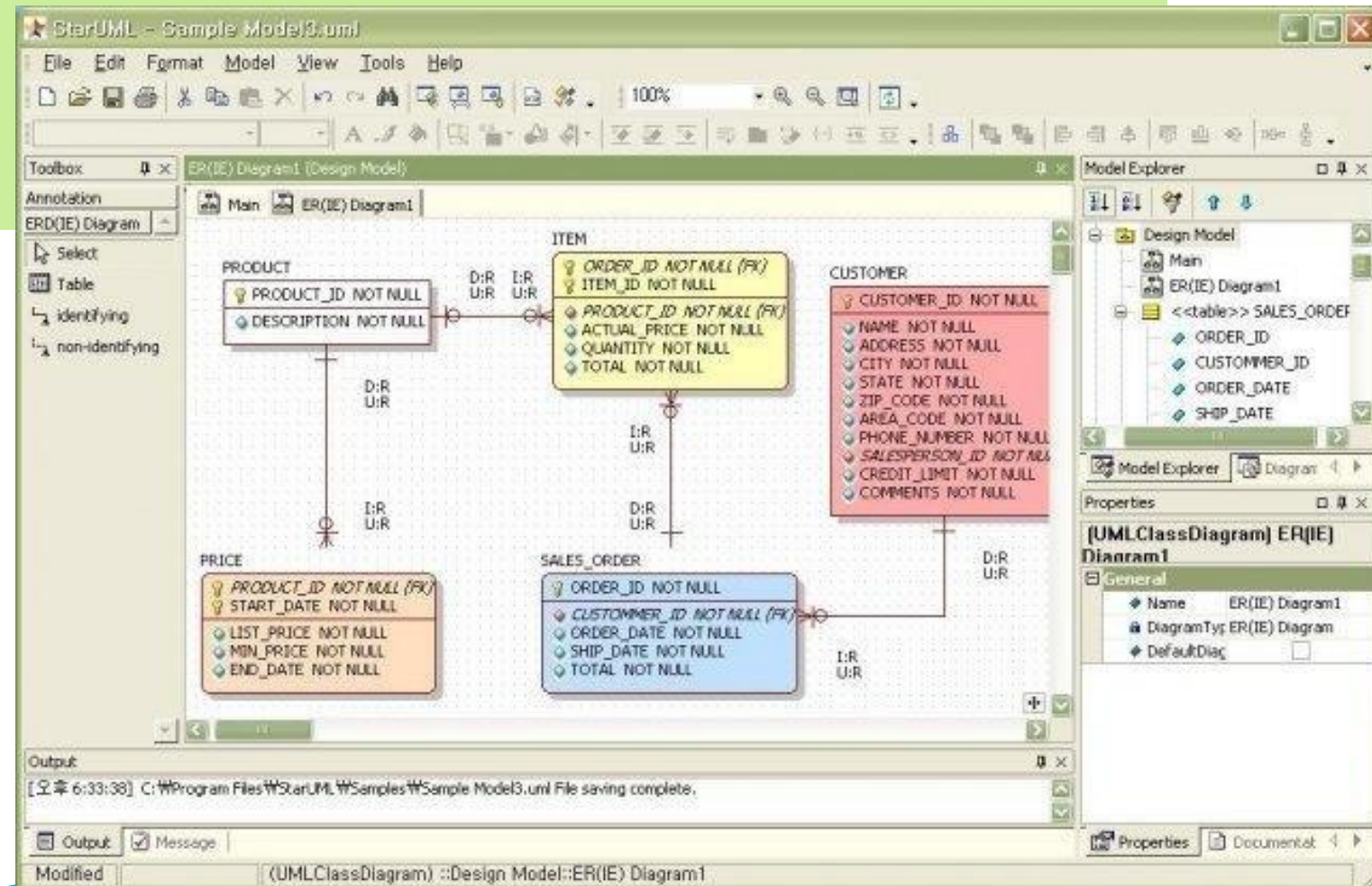
Enterprise architect www.sparxsystems.com
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Archi www.archimatetool.com/
StarUML www.staruml.io
Zdarma



Archi
archimate modelling

Governance



Architektura jako nástroj

Pro komunikaci

Pro řízení

Pro inovaci

Enterprise Architecture at Adidas

Governance by collaboration

<https://youtu.be/v2njZWsNM0s>



Díky

Business Model Generation.pdf
Mastering ArchiMate Edition.pdf