

TECHNOLOGY DAY / 13.11.2023

The Tech Stack Canvas

**Create, Document,
Communicate**



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Challenges

New Team Member

How to provide an initial overview?

New Project

How do we define the main elements?

Many Independent Teams

How to get a big picture?

The Canvas

<https://techstackcanvas.io/>

Business Goals

main objectives this project tries to achieve

Frontend Technologies

languages, tools and frameworks used for developing the user interface and user experience

API & Integrations

third-party services used to extend the functionality of the product or service

Security & Compliance

tools, practices, and standards implemented to ensure the security and privacy

Sizing Numbers

that influenced decisions, such as number of users, requests per second, data volumes

Backend Technologies

technologies used for server-side processing, data management, and business logic implementation

Testing & QA

tools and methodologies used to test the application's functionality, performance, and security

Major quality attributes

that influenced decisions, such as availability, fault tolerance, learnability, adaptability

Data Storage & Management

technologies used for data storage, retrieval, and processing

Infrastructure & Deployment

platforms, tools, and services used for hosting, deploying, and managing the application

Monitoring & Analytics

tools and services used to monitor the application's performance, track user behavior, and gather insights for optimization

Development Workflow & Collaboration

tools and processes used to facilitate efficient development and collaboration among team members

Product Context

- Influencing factors for the selected stack
- As Context
- No need to be complete
 - On the contrary → Little space forces you to focus on the essentials
- E.g. 10 or 10000 requests/second?
- Essential SLAs

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Classic Layers

- Programming languages
- Frameworks
- Important libraries
- Databases

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Supporting Elements

- APIs
 - internal
 - external
 - focus on the essentials
- Auth*
- Compliance rules (e.g. GDPR)
- Testing

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Testing & QA

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Infrastruktur & Tools

- Foundation of the product
- Cloud providers and most important services
- Don't forget analytics
- Also includes IDEs, Issue Trackers, VCS and even Chat

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Creating a Canvas

Document an Existing Stack

- Simple interview of the team
- Takes usually 30-60 minutes
- Keep it simple
- Miro-Template, if online
- PDF Printout, if offline
 - Post-It notes on a wall also work

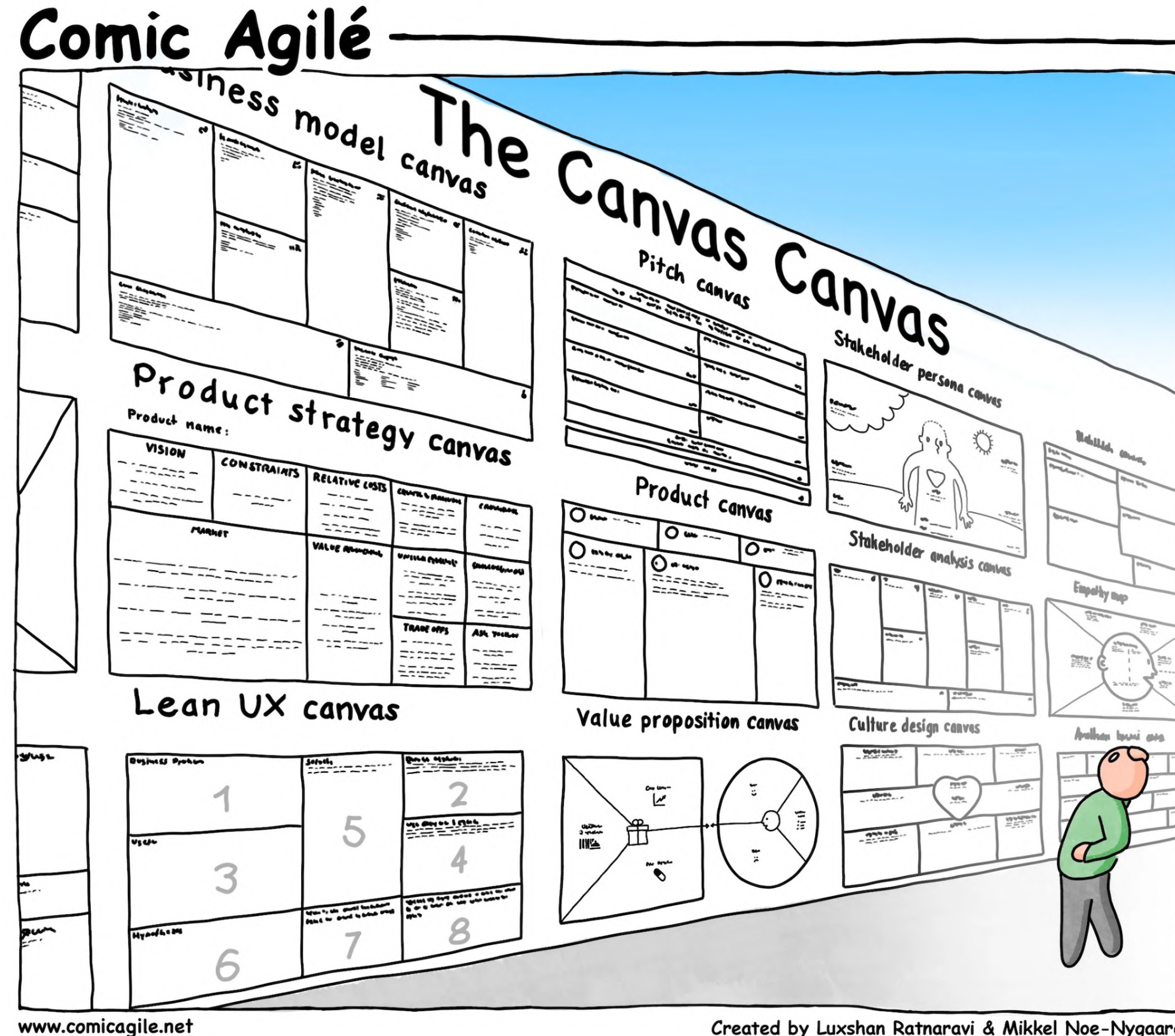
Create a New Stack

- Very useful in Scoping Workshops
 - Sometimes an hour is already enough
- If you really need to create it from ground up:
 - see: <https://techstackcanvas.io/#create>
 - Important: start with constraints

Try it!

The canvas is quickly created → then benefit

Next Level:



Questions?



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