

# SHORT INTRODUCTION



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**Magnus Engström**

CTO at Future Position X



**Henrik Mazzanti**

Process Manager at Future Position X

# QUESTIONS THAT WE WILL TRY TO ANSWER

WHAT ARE THE SUCCESS (AND NOT SO SUCCESSFUL) STORIES THAT HAVE GROWN OUT OF THE GÄVLE INNOVATION ARENA?

HOW DID YOU GET STARTED WITH THE DATA LAKE? WHO TOOK THE LEAD IN THE PROCESS?

WHAT ARE THE MAIN CHALLENGES FOR CREATING SUCH AN INFRASTRUCTURE?

# A SHORT BACKSTORY



# AGENDA

## **1. A WASTE OF RESOURCES**

Some insights regarding data centric innovation projects in the public domain.

## **2. FINDING THE END USER**

True innovation requires a user story

## **3. SOLVING A PROBLEM**

The UX driven approach on how to make a difference

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## 1. A WASTE OF RESOURCES - DATA INFRASTRUCTURE

# DATA LAKES



# DATA LAKES

## WHAT IS IT?

A **data lake** is a storage repository that holds a vast amount of raw data in its native format until it is needed.

## WHY IT CAN BE A WASTE OF RESOURCES

- Hard to keep track of data being stored / indexing.
- Requires maintenance of datasets with no apparent value.
- No intuitive way of using the data.



# DIGITAL TWINS



# DIGITAL TWINS

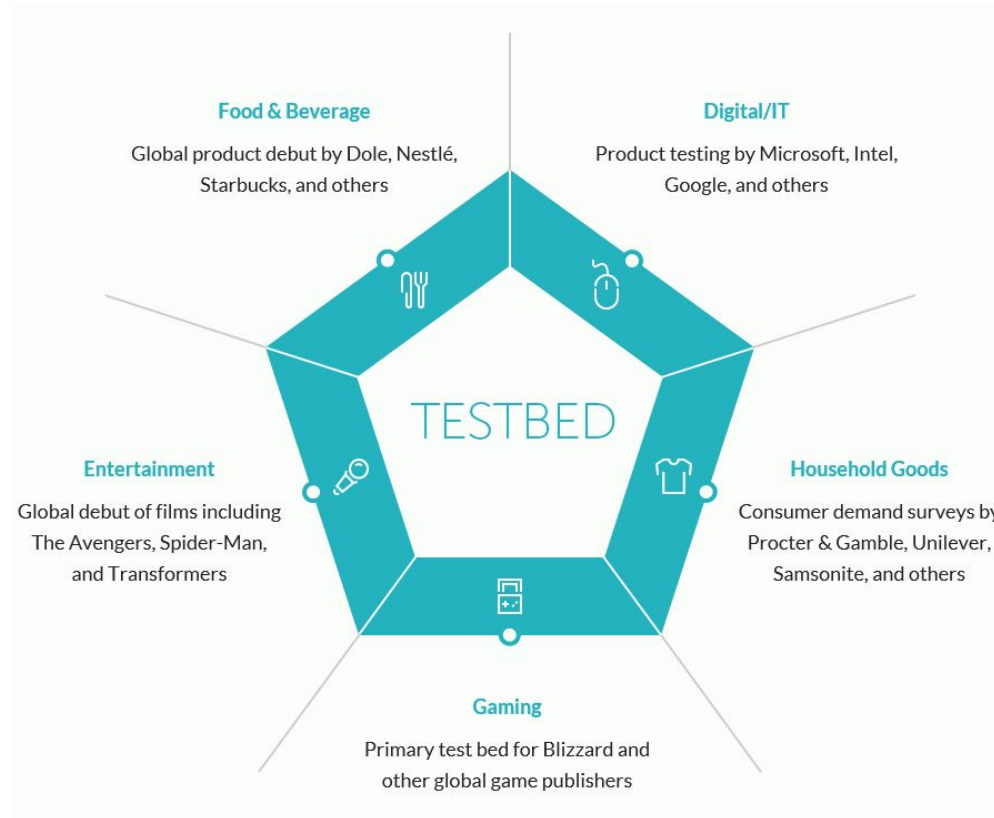
## WHAT IS IT?

A **digital twin** is a virtual representation that serves as the real-time digital counterpart of a physical object or process. Though the concept originated earlier the first practical definition of digital twin originated from NASA in an attempt to improve physical model simulation of spacecraft in 2010. Digital twins are the outcome of continuous improvement in the creation of product design and engineering activities.

## WHY IT CAN BE A WASTE OF RESOURCES

- There are no true digital twins
- “Do all sorts of simulations” is a constantly moving goal post.
- Can not be trusted.

# TEST BEDS



# TEST BEDS

## WHAT IS IT?

A **testbed** is a platform for conducting rigorous, transparent, and replicable testing of scientific theories, computational tools, and new technologies.

## WHY IT CAN BE A WASTE OF RESOURCES

- Needs to follow rigorous standards to be of value.
- Must add benefits (such as raw hardware performance) not available elsewhere.
- Complexity

# INNOVATION HUBS



# INNOVATION HUBS

## WHAT IS IT?

**Innovation hubs** are initiatives aimed at generating business between SME, public sector och science and research. In addition, they are conducive to meeting people who interact, create, undertake, work and innovate together, in a network.

## WHY IT CAN BE A WASTE OF RESOURCES

- The constant quest for funding creates a downward spiral.
- Projects are not allowed to fail fast and hard.
- Not top of mind

# INNOVATION DEPARTMENTS



# INNOVATION DEPARTMENTS

## WHAT IS IT?

Competitors, customers, employees, and the market are providing multiple cues about where an organization needs to grow and improve. **Innovation departments** should be scanning the horizon for this information and using it to guide overall innovation strategy that aligns with a company's overarching business strategy.

## WHY IT CAN BE A WASTE OF RESOURCES

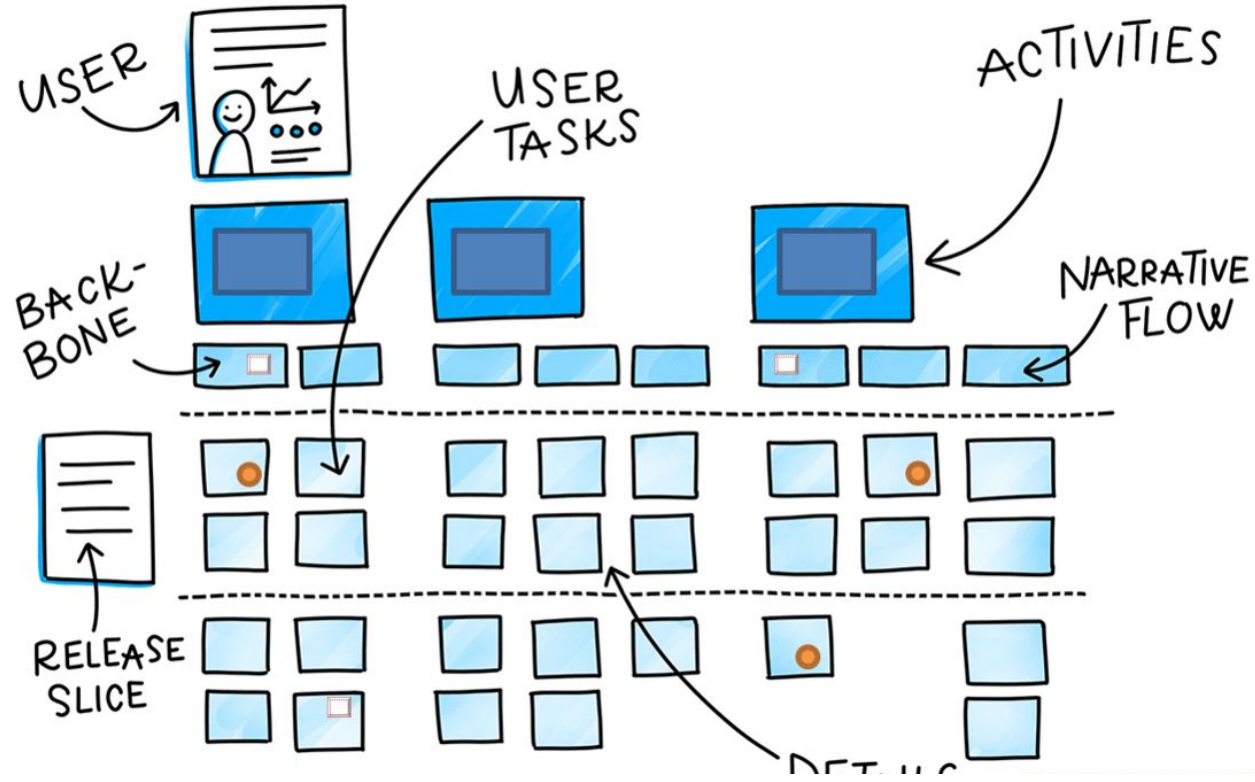
- Not connected to the rest of the organisation (no throughput).
- Indicates low strategic understanding of day to day innovations.
- Not optimally staffed.



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## 2. FINDING THE END USER

# USER STORY MAPPING



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## WHAT IS IT?

**User story mapping** is a simple, collaborative exercise that helps you define your user's journey with your product, where any gaps exist, and what it could be. In other words, it's a way to move out of feature prioritization purgatory and instead keep your user's needs and actual use cases front and center.

## WHY IT'S IMPORTANT

- Highlighting real world problems
- Making sure that a potential project is in line with the purpose of the organisation.
- Increases the chance of "eureka moments".

# DECLARING BEFORE & AFTER



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## WHAT IS IT?

Just a simple question that needs to be answered before diving into an innovation project: What difference does this initiative really make and how will it be noticed?

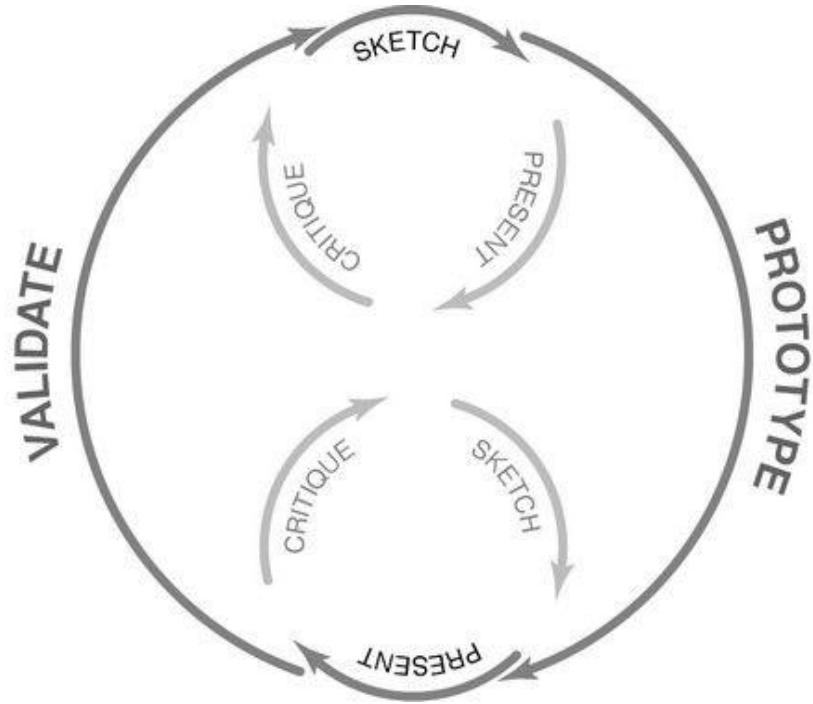
## WHY IT'S IMPORTANT

- Creates an understanding for the importance of the project.
- Gives insights into how large the user base is expected to be.
- Makes communication easier.



### 3. SOLVING A PROBLEM

# LEAN UX



# LEAN UX

## WHAT IS IT?

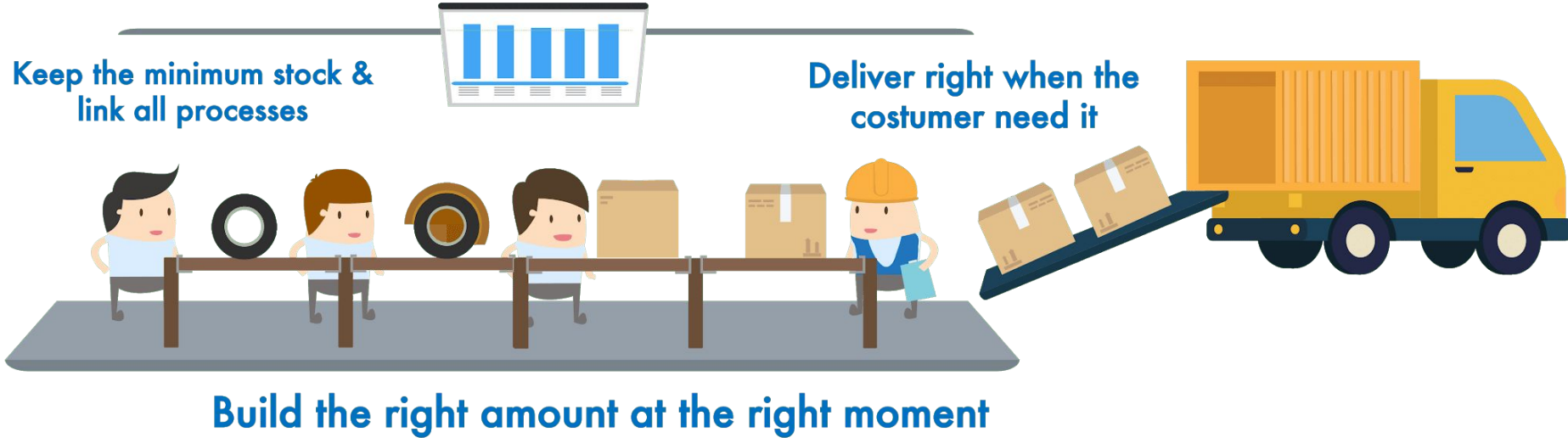
**Lean UX** is focused on the experience under design and is less focused on deliverables than traditional UX. It requires a greater level of collaboration with the entire team. The core objective is to focus on obtaining feedback as early as possible so that it can be used to make quick decisions. The nature of Agile development is to work in rapid, iterative cycles and Lean UX mimics these cycles to ensure that data generated can be used in each iteration.

## HOW IT SOLVES A PROBLEM

- Creates a sense of urgency
- Makes it easier to build the right team for the task.
- Faster time to market/failure.



# DATA PROJECTS - THE JUST IN TIME APPROACH



# DATA - THE JUST IN TIME APPROACH

## WHAT IS IT?

Data needs to serve a clear purpose. No project should ever start with expectations like that AI will be used or that block chain technology will be a part of the solution. Data projects only become data projects when it's needed.

## HOW IT SOLVES A PROBLEM

- Focusing on creating data within the project rather than building on top of old data.
- The cornerstone of a data driven approach.
- Scalable.



# POSSIBLE QUESTIONS (STOLEN FROM BIRMINGHAM) TO DISCUSS IN GROUPS

**WHAT HAVE YOU LEARNT?**

**HOW COULD YOU APPLY TO YOUR LOCAL CONTEXT?**

**WHEN WOULD YOU SEEK TO APPLY THIS LEARNING?**

**WHO WOULD BE INVOLVED IN YOUR CITY TO DEVELOP YOUR PLANS?**

**WHAT ARE THE ENCOUNTERS YOU MAY ENCOUNTER?**



# HOW TO KEEP IN TOUCH

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Future Position X

<https://fpx.se/>

Magnus Engström

<https://www.linkedin.com/in/magnus-engström-7558205b>

Henrik Mazzanti

<https://www.linkedin.com/in/henrik-mazzanti-108b5916/>