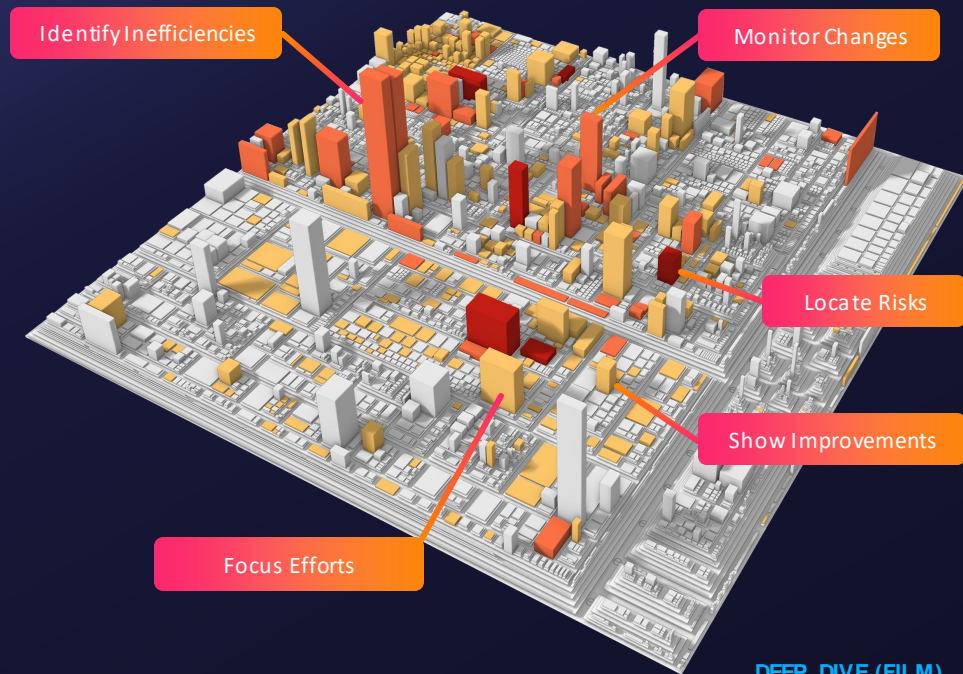


# Unlocking Efficiency Potentials of Software Development Organizations

Dr. Johannes Bohnet  
Co-CEO & Founder of Seerene

See. Understand. Improve.  
The way software development  
organizations run.



# "Every Company is now a Software Company" (Satya Nadella, CEO Microsoft)

Every Company Relies on Efficient Software Production to Survive

*"Every company is a software company. You have to start thinking and operating like a digital company."*

Satya Nadella CEO Microsoft

*"In 2017 software failures led to losses of \$1.7 trillion in revenue. 3.6 billion people were affected."*

Source: Tricentis, 2018



Wirtschaftswoche  
5.2.2021

# The Age of Software 'Factories'



*"Software is eating the world"*

Marc Andreessen

*"Deutsche Post loses €345 million, Lidl €500 million on failed SAP upgrades."*

Source: Wirtschaftswoche, 2018



10 Page Story featuring Seerene in CIO as well as in Computerwoche. 11/2020  
<https://www.cio.de/a/die-aera-der-software-factory.3260885>

# Why many Software Projects are not delivered in Time and Budget

Software production happens in contexts of uncertainty



Upfront assumptions on user requirements are oftentimes wrong

Competitor businesses can suddenly appear and force adaptations of requirements

Technology changes fast



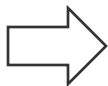
# Agile Development is an answer to Uncertainty

But agile has a blind spot and makes controlling financial aspects even harder

## Waterfall Projects



plan → define costs → sail



## Agile Projects



pay-as-you-sail towards a vision  
(time and material approach)

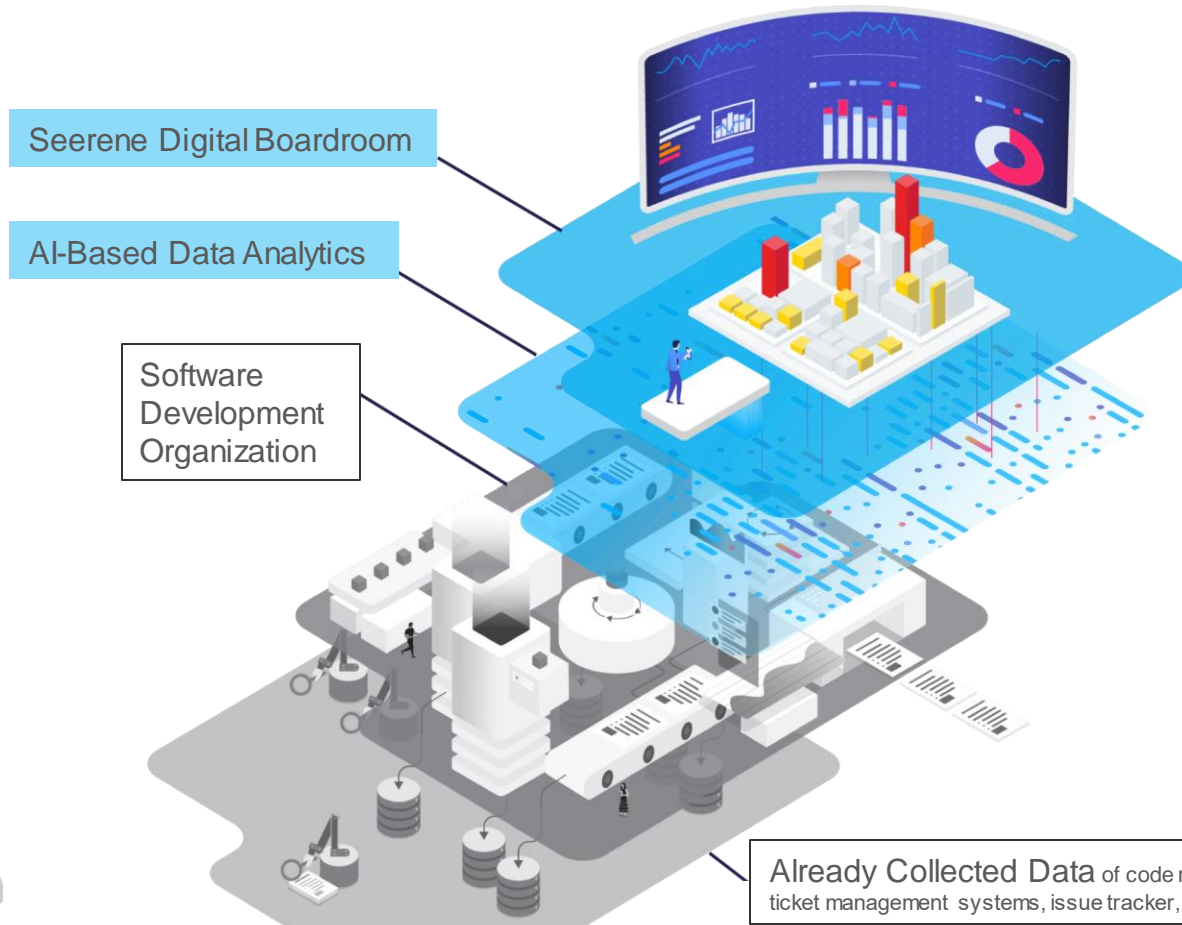


The disadvantage of agile methodology:

- No upfront planning.  
Just steering towards a vision.
- No time tracking.  
Just rough on-demand effort estimations with an artificial, team-specific, non-comparable time currency called “story points”

→ No information of how much developer time is spent for what.  
→ Are the coding investments aligned with business priority?

# Financial Transparency in Software Development Organizations

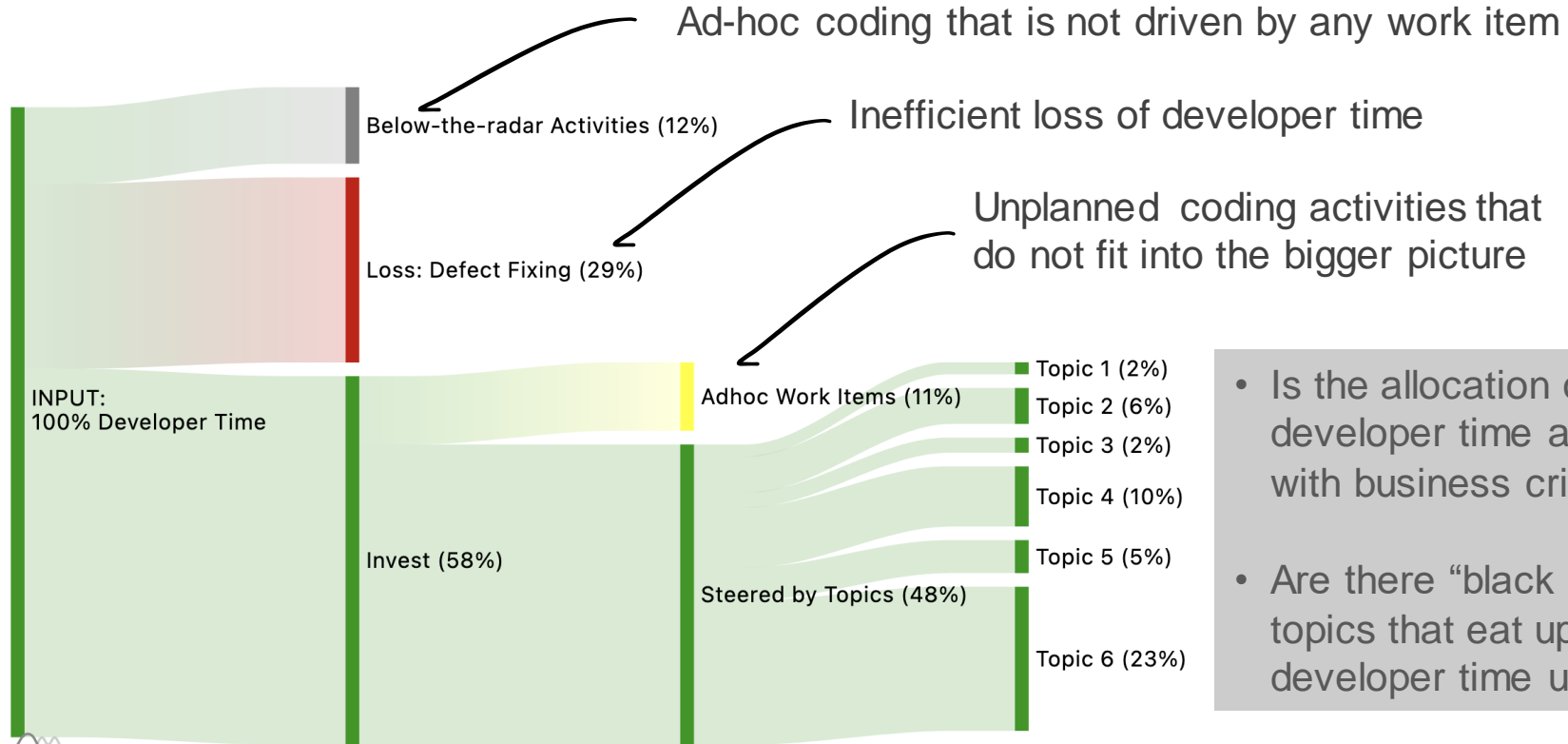


- Data-driven analysis of actual software development activities
- No interference to methodologies, developer tools & processes
- Disruptive use of existing software development data such as commits and tickets
- Boardroom for both technical and non-technical stakeholders
- Reports on trends, risks, state, business criticality, and spent budgets
- Activating self-reflection across all stakeholders, creating awareness



# Data-Driven Analysis How Developer Time is Used

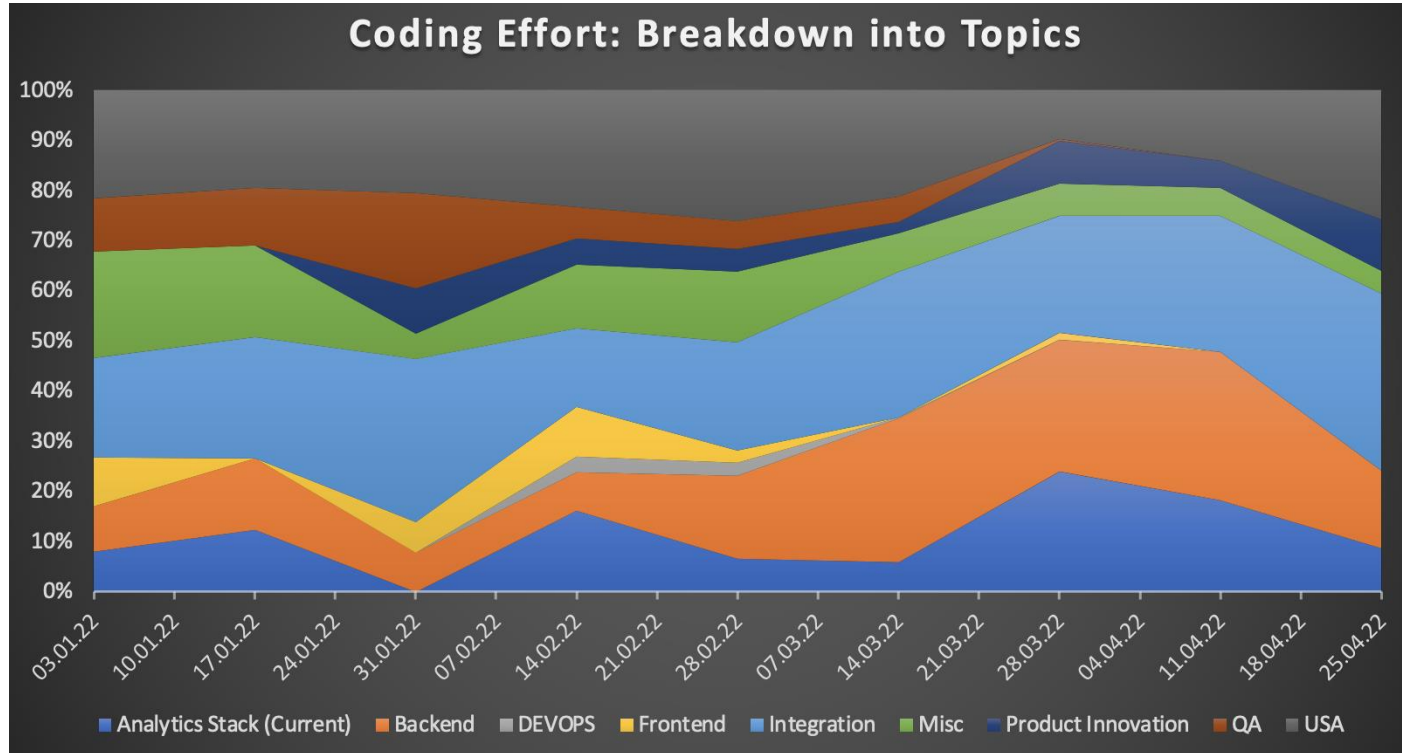
Are developer resources in terms of time and money spent according to business criticality?



- Is the allocation of developer time aligned with business criticality?
- Are there “black hole” topics that eat up developer time unnoticed?

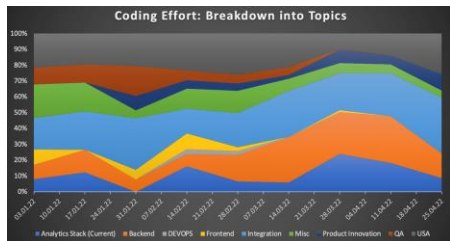
# Data-Driven Analysis How Much is Invested into Business Topics?

Quantifying and analyzing the overall development efforts over time.



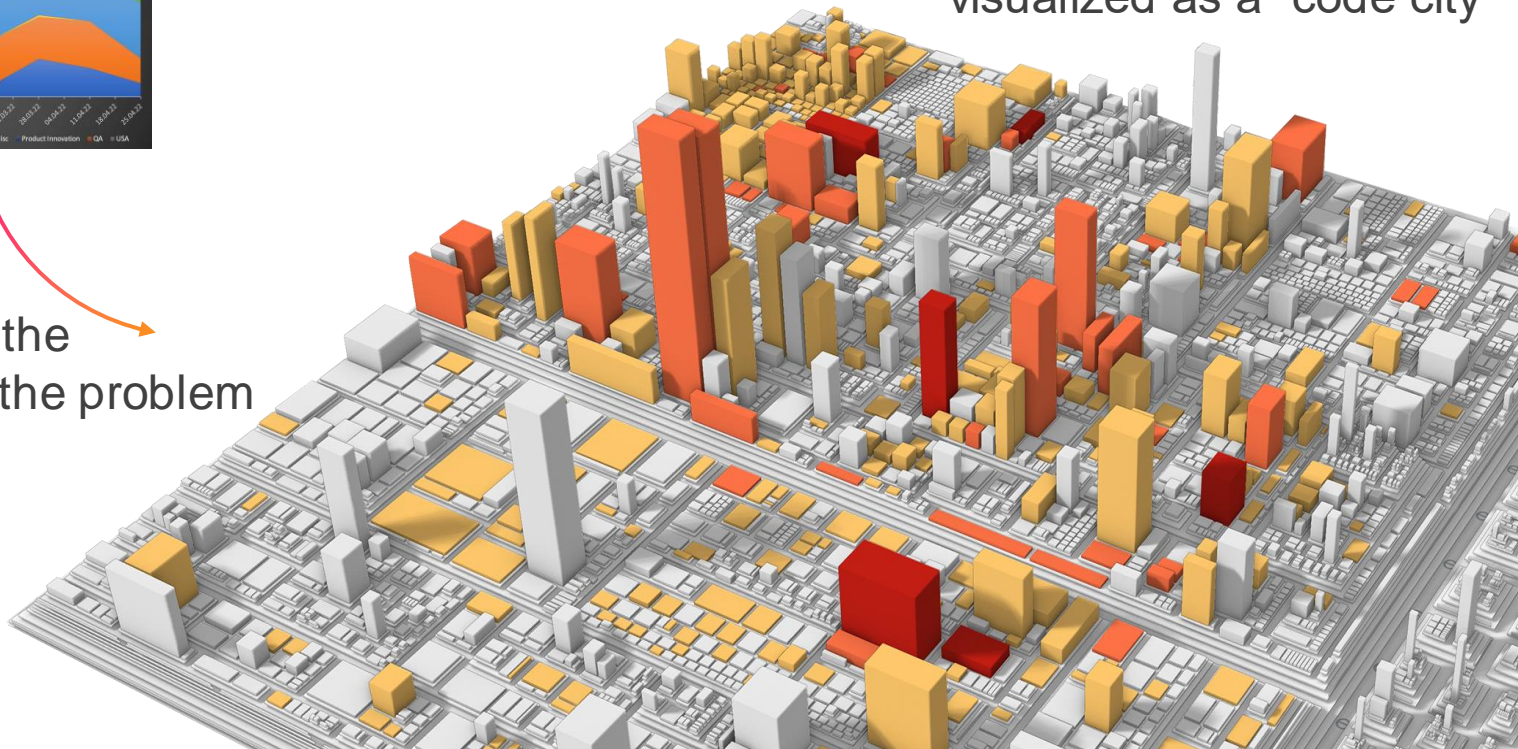
# Inefficiency Eats Up Budgets

Finding and fixing code that unnecessarily consumes developer time

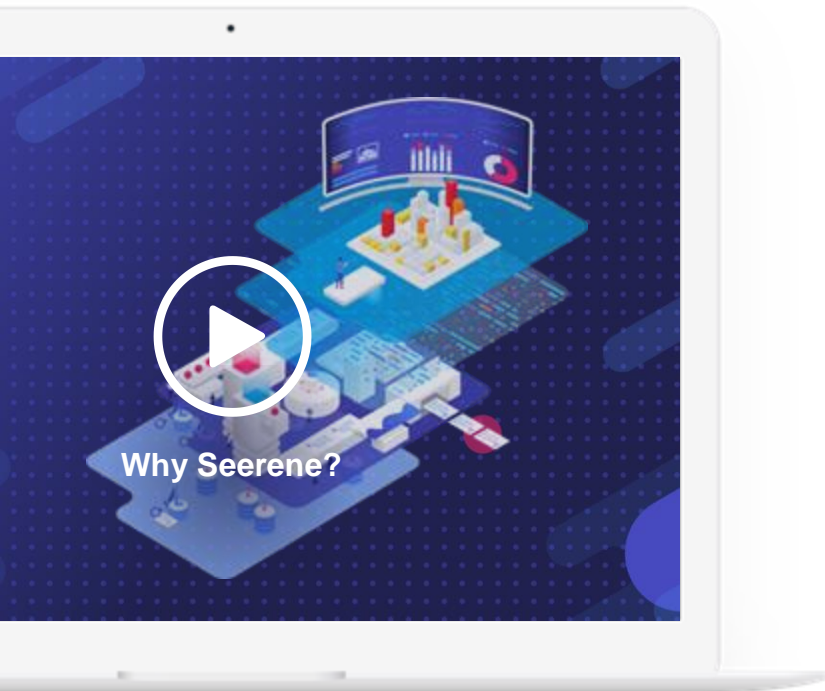


Code Landscape  
visualized as a “code city”

Navigating to the  
root cause of the problem







# Thank You!



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✉ [hello@seerene.com](mailto:hello@seerene.com)

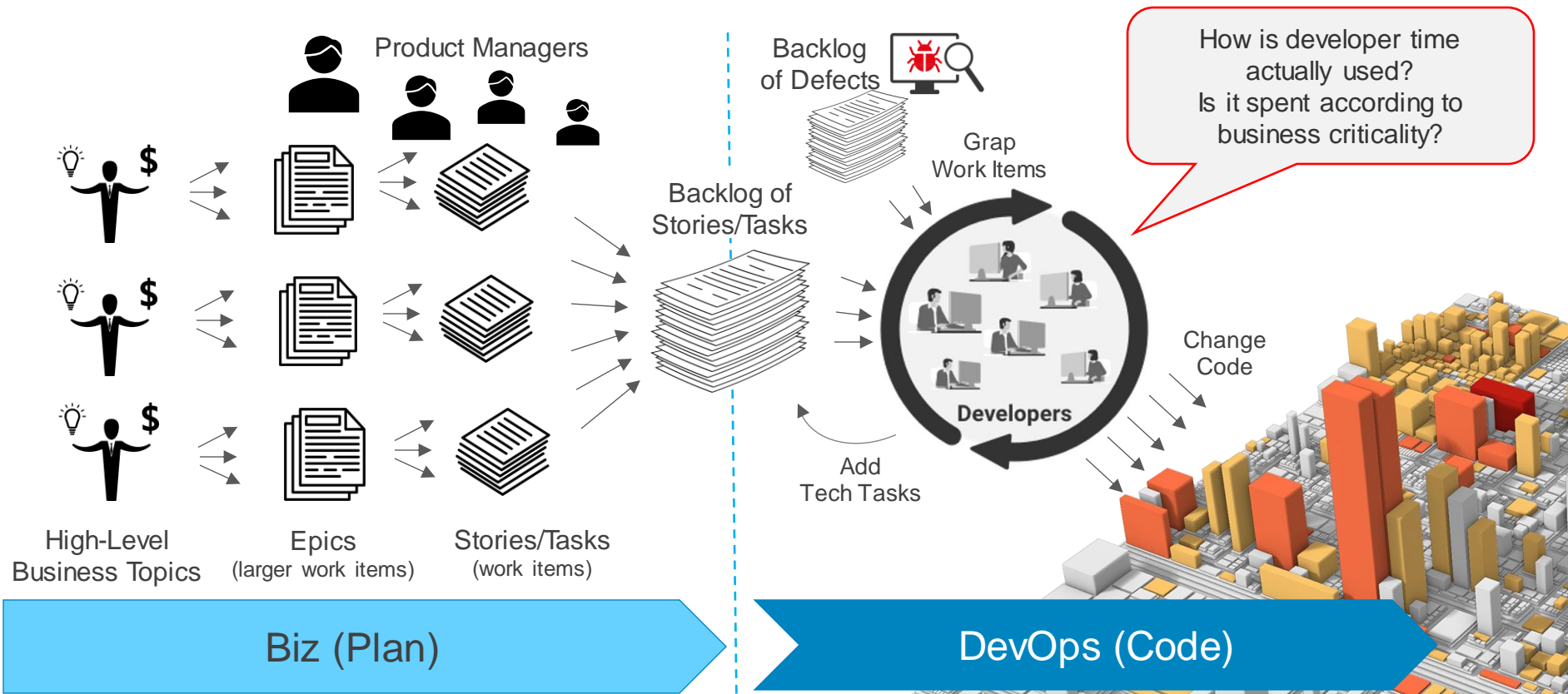


# Backup Slides



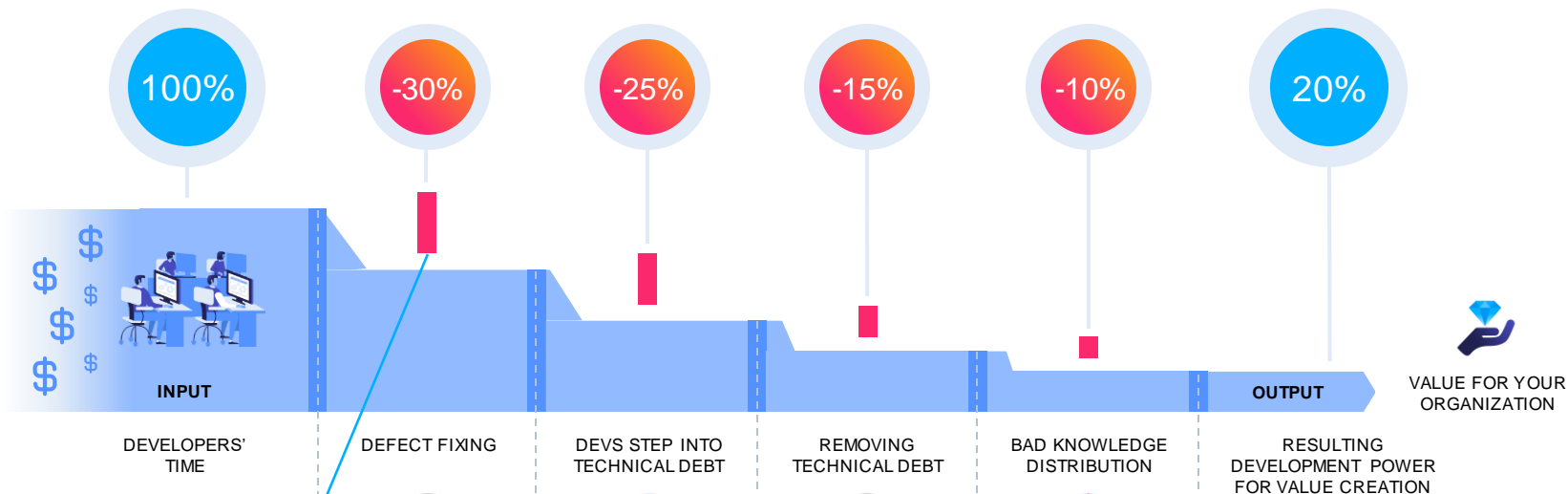
# Agile Methodology has a critical Blind Spot

The process from requirements to code is a one-way street without back-flow information



# Inefficiency Eats Up Budgets

How to Get Extra Power Out of This.



## Seerene KPIs

"Effort for Defect Fixing"



Management Level: **Monitoring & Steering**

- **Seerene KPIs** enable you to quantify and manage that

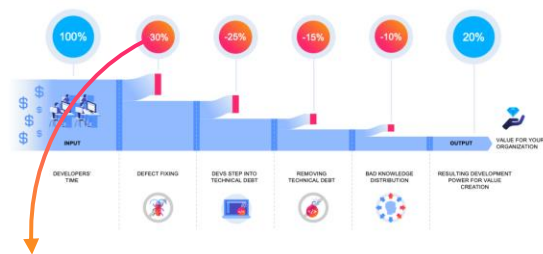
Expert Level: **Actionable Insights**

- **Seerene drill-downs (e.g., Code Map Visualization)** enable you to precisely locate the root causes for the problem and fix it with minimal investment



# Inefficiency Eats Up Budgets

## Finding and Fixing Commonly Broken Code



Coding effort spent for defect-fixing



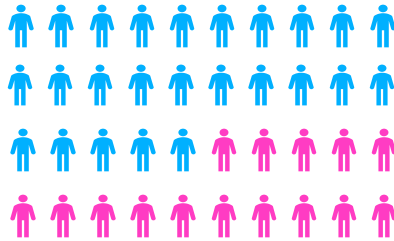
- Reveal how much effort is spent for defect-fixing
  - Locate code units that constantly need to be fixed
- Be able to effectively eliminate the problem



# Inefficiency Eats Up Budgets

Efficiency Loss: Small Scope Case, Proof-of-Value (40 FTEs – 2 Software Systems)

## Efficiency Loss in FTEs



Efficiency Loss Approx.

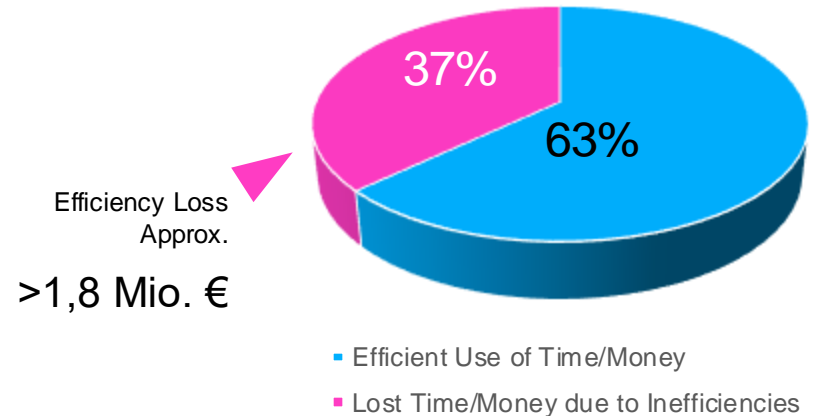
15 FTEs\*

2.250 Coding Days / Year\*\*

\*40 Total FTEs (2 Applications)

\*\*150 Coding Days/Year x 40 FTEs = 6.000 Coding Days in Total

## Efficiency Loss in Budget



Cost per FTE (All-in): 850,- € / Day (Central Europe)  
Budget p.a. approx.: > 5 Mio €



# Convert Efficiency Losses into Extra Power

## Next step after Proof-of-Value (Example Customer Scenario)

Three options for harvesting benefits with Seerene Analytics:

1. Small Scope:  
The 2 systems from PoV
2. Mid-Scale Rollout:  
Three departments with 8 systems
3. Full Rollout:  
Twenty major systems in the enterprise

