# How Dev(Sec)Ops are you?

## DevOps Conference Berlin
## 30.05.2018

**Dr. Martin Luckow**
**Senior Solution Manager**

# Trivadis with over 650 Specialists and IT Experts


- 14 Trivadis branches and more than 650 employees, growing
- Near- and offshore partners with a dedicated, scalable Trivadis team
- 200 Service Level Agreements
- Over 4‘000 training participants per year
- Research and development budget: CHF 5.0 million per year
- Financially self-supporting and sustainably profitable
- Experience from more than 1‘900 projects…

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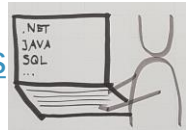
# Trivadis Portfolio (Weblinks)

**Analytics, BI & Big Data**

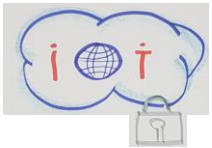
- Advanced Analytics & Reporting
- Analytical Data Management
- Big Data & Data Science

**Application Development**




- Application Modernization
- Individual Software Solutions
- Mobile

**Cloud**




- Cloud Solutions
- IoT

**Digitalization & Integration**

- Digital Integration
- Digital Transformation
- Digital Performance Management

**Infrastructure**

- Infrastructure Architecture
- Infrastructure Engineering

**Innovation**

- Trivadis Innovation Partnership Program
- Trivadis TechEvent
- Drone Deer
- IoT Windpark
- Smart Building and Co-Working Space
- Innovation Space: The digital Eco-System

**Services for all Areas**




- Requirements Engineering
- Project Management
- Managed Services
- Products
- Training

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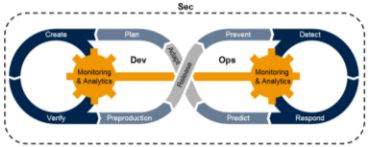
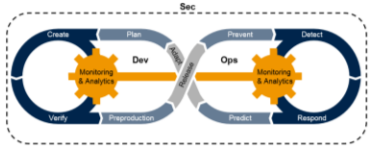
# A path to DevSecOps

- Looks like waterfall, but it is not ☺
- When you reach 8, the game starts again. However, you have more experience
- Is an iterative self-improvement process. It can be measured and steered.




1. Identify the Business Justification
2. Define DevOps for You
3. Select the First Mover
4. Identify the Initial Team
5. Establish Objectives and Metrics
6. Focus on Constraints
7. Develop the Toolchain
8. Scale When Ready

# A path to DevSecOps

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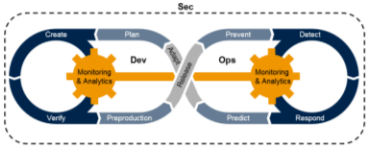
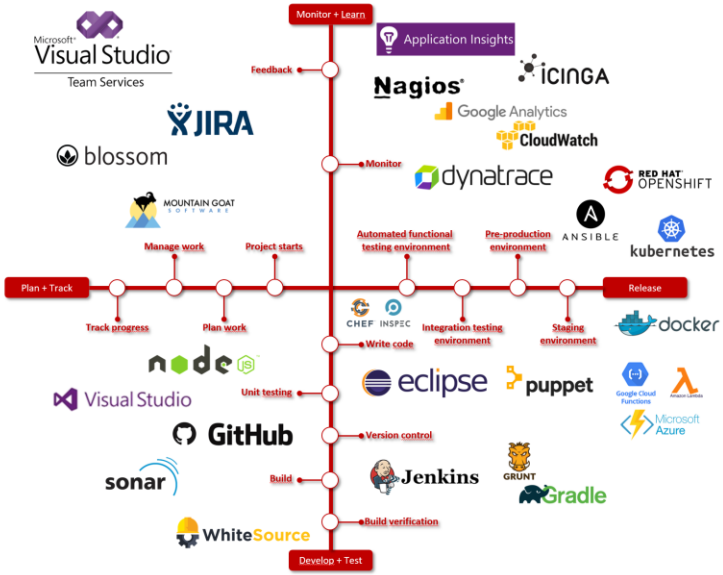
# A path to DevSecOps




- Toolchain development is late in this process
- Has to be redone in 8

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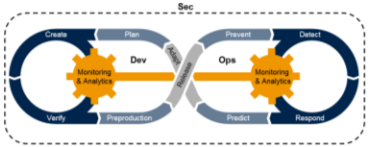
# A path to DevSecOps




- Looks like waterfall, but it is not ☺
- When you reach 8, the game starts again. However, you have more experience
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Application for a benchmark

1. Identify the Business Justification
2. Define DevOps for You
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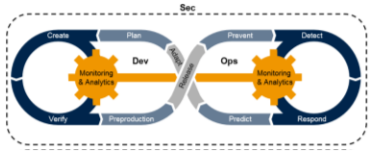
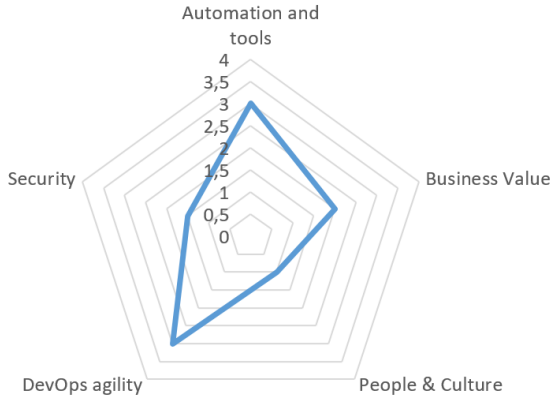
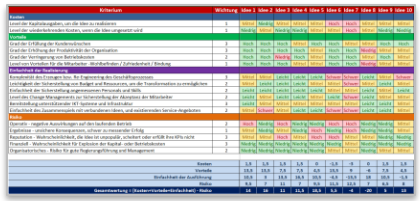
# Benefit of a benchmark

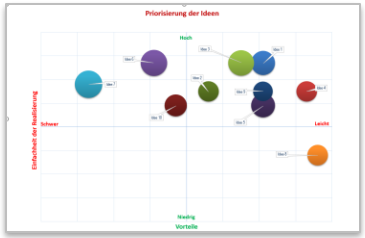



- Understand what DevSecOps is about (Focus on what…)
- Recognize that you are in a organizational and technical transformation process
- Assess where you are in this process
- Develop ideas about what to do next and what not
- Regular progress control

… there will be more



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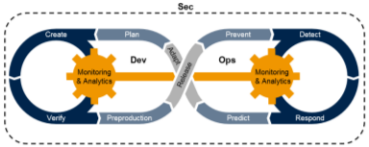
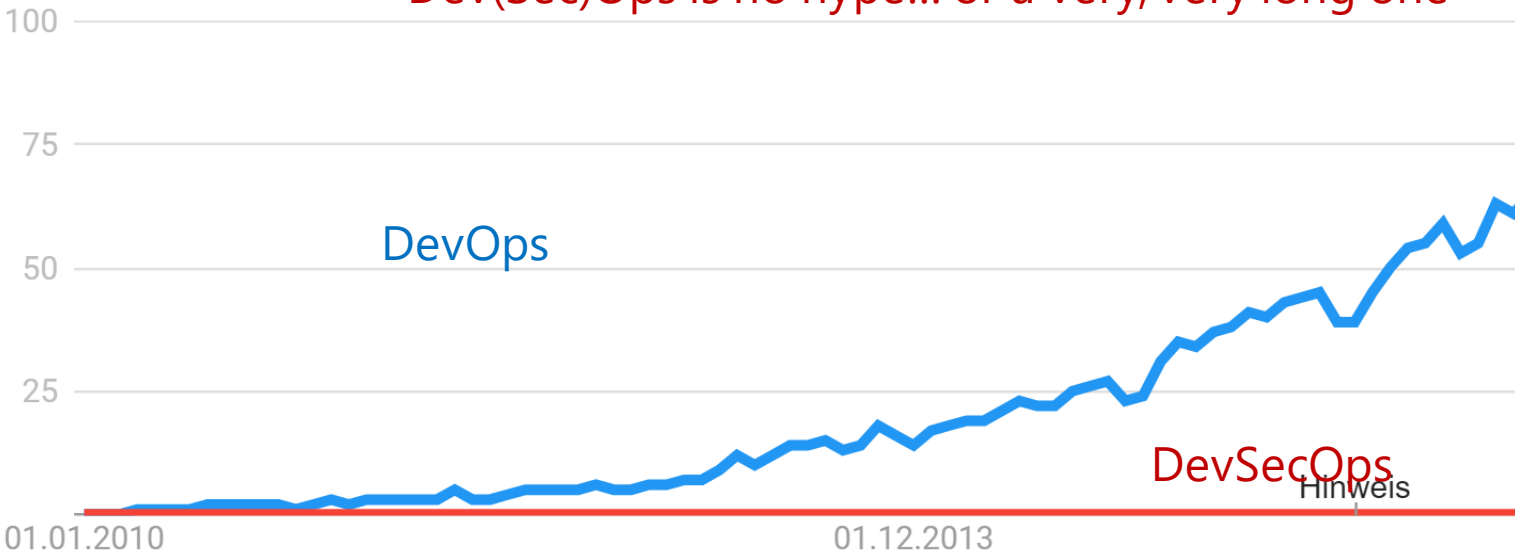
# Some remarks to the „Sec“…

# Why „Sec“?




= Rel. Max of Queries

Dev(Sec)Ops is no hype… or a very, very long one



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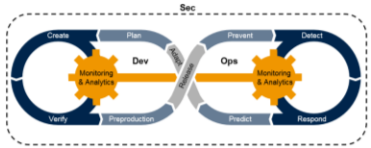


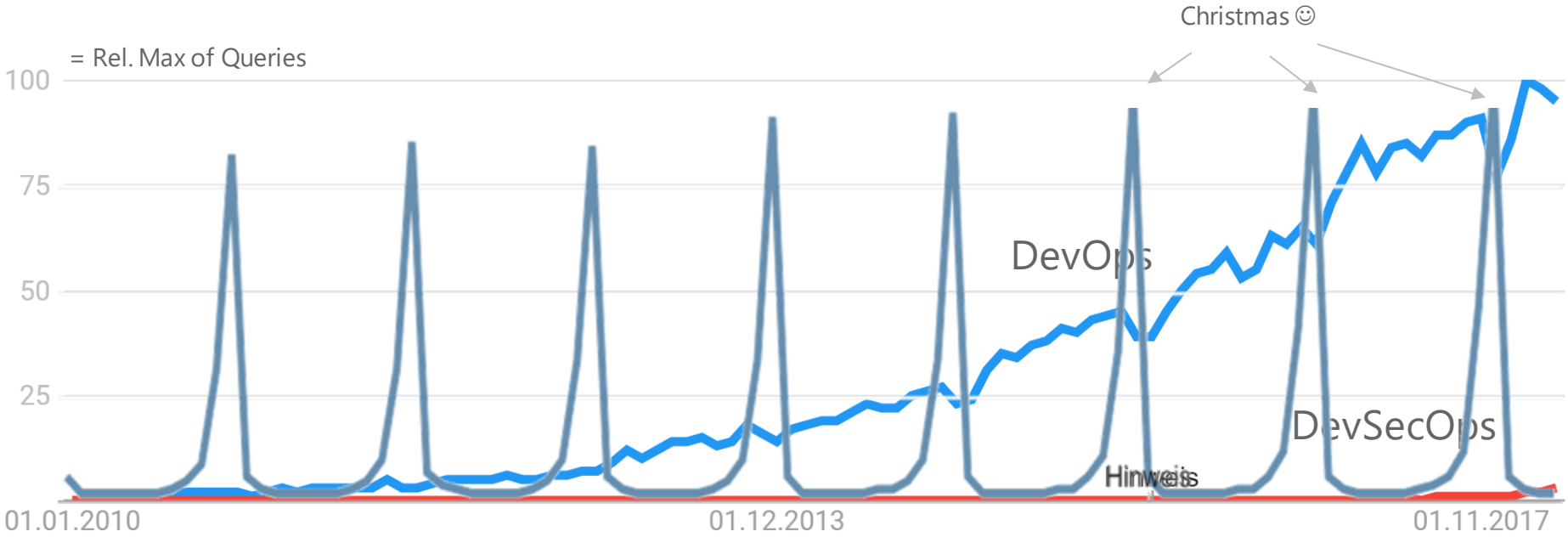




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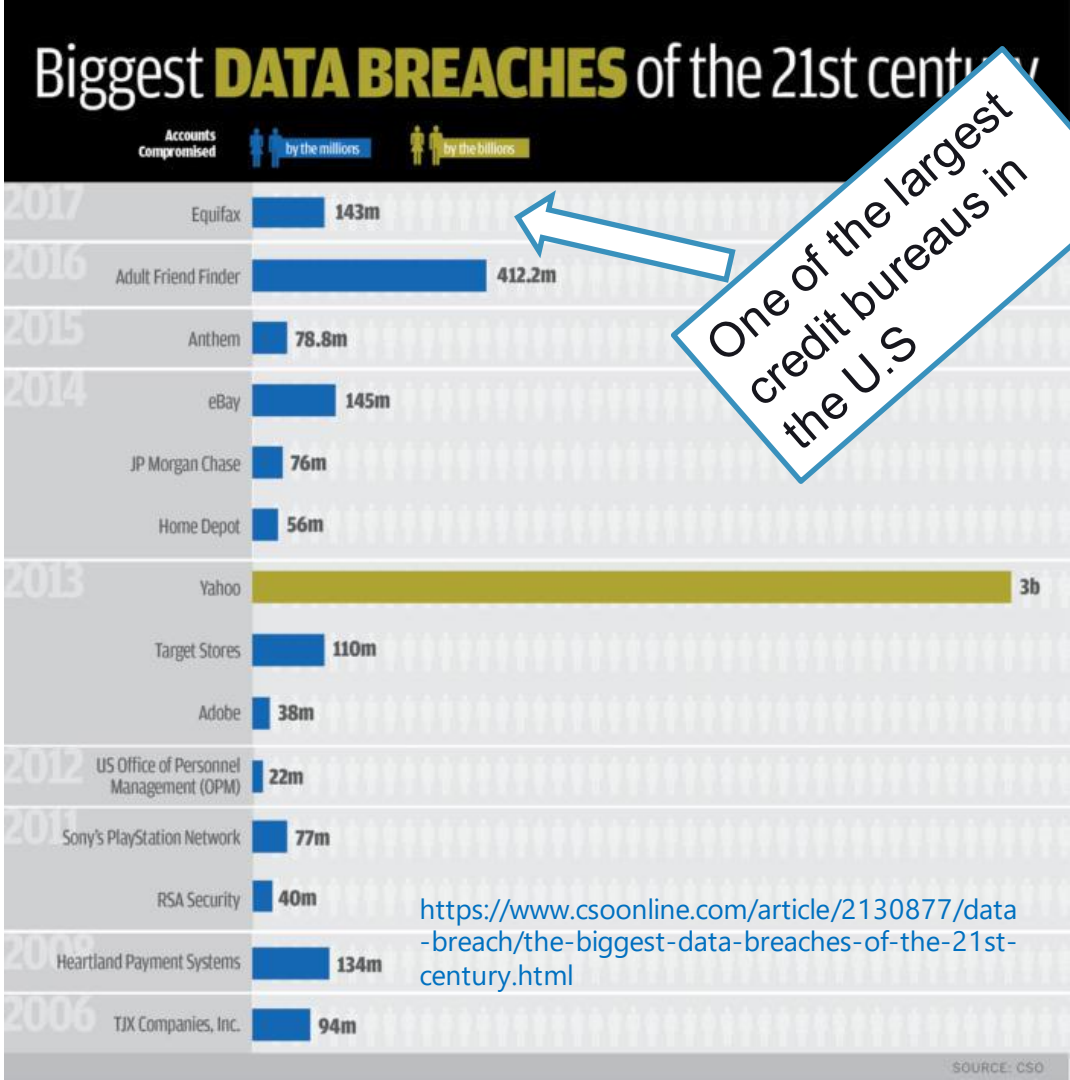
# Why „Sec“?

Nobody wants to be on such a list…

Equifax, July 29 2017

- Personal information (including Social Security Numbers, birth dates, addresses, and in some cases drivers' license numbers) of 143 million consumers
- 209,000 consumers also had their credit card data exposed



# Why „Sec“?

https://staysafeonline.org/

And the smaller companies?

- Almost 50 percent of small businesses have experienced a cyber attack
- More than 70 percent of attacks target small businesses
- As much as 60 percent of hacked small and medium-sized businesses go out of business after six months

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# Why „Sec“?

https://staysafeonline.org/

- How do the costs of a security issue add up across 6 categories?

NATIONAL CYBERSECURITY ALLIANCE


https://thenextwed.com/security



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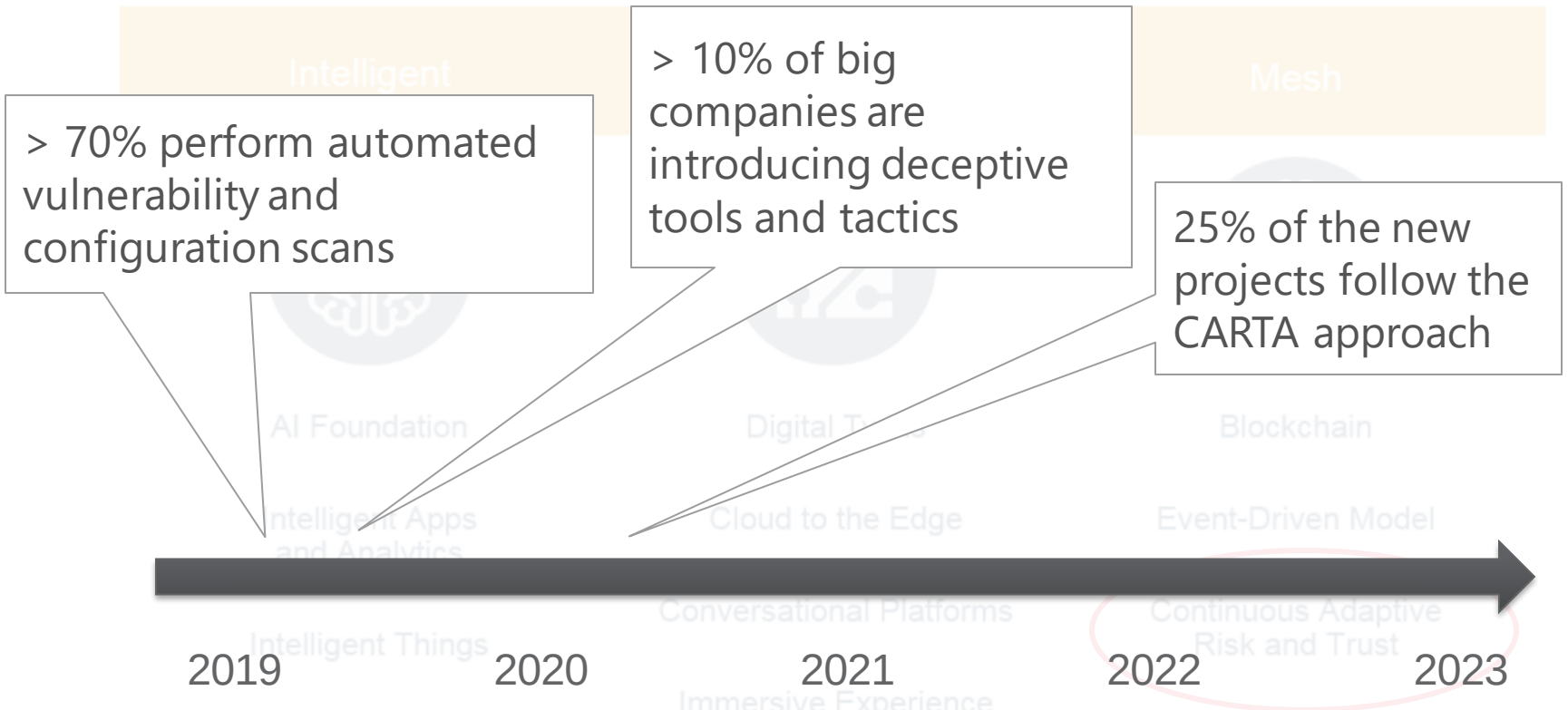
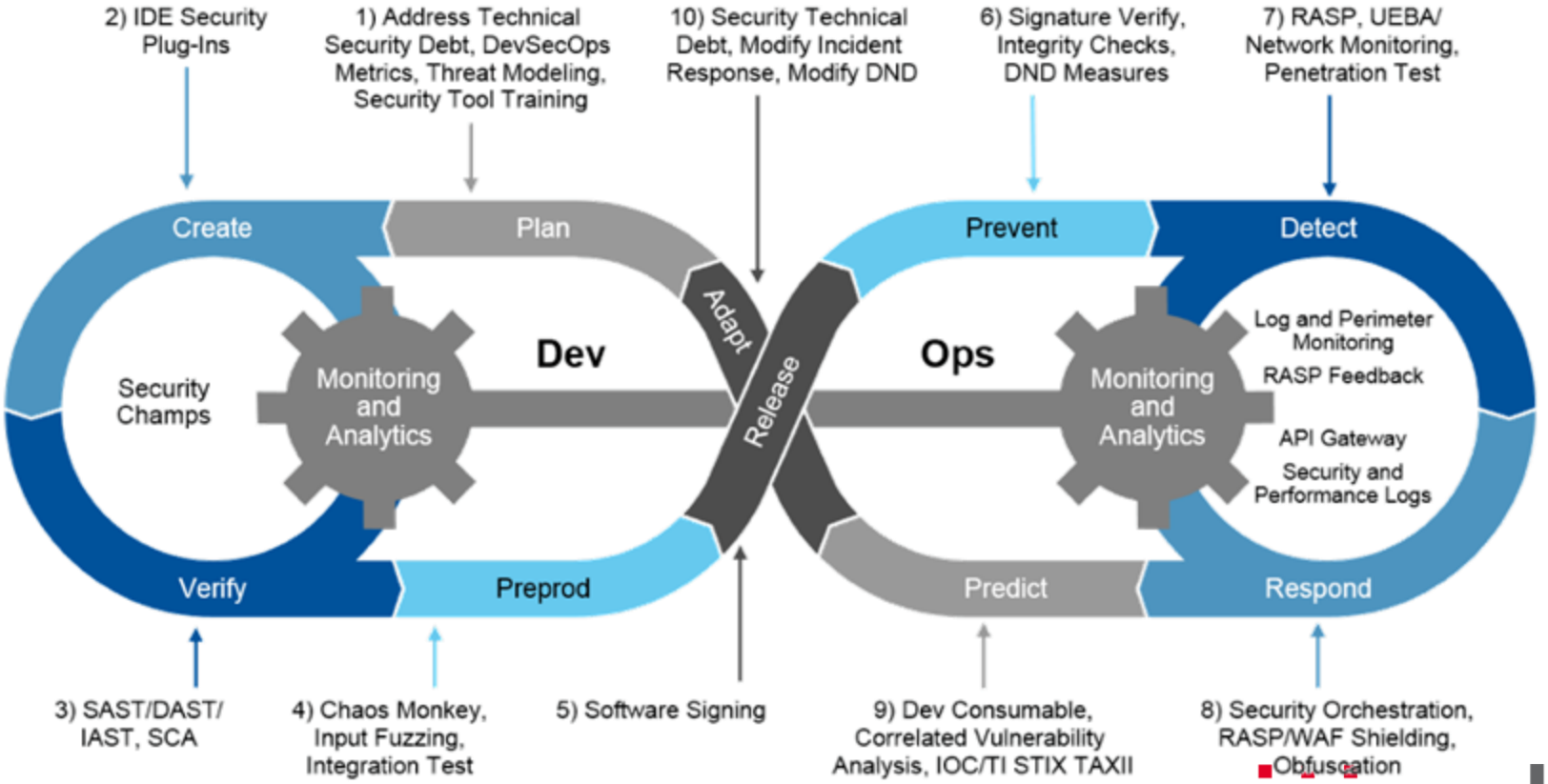
# Why „Sec“? Gartner Strategic Trends 2018

| Intelligent | Digital | Mesh |
|---|---|---|
|  |  |  |
| AI Foundation | Digital Twins | Blockchain |
| Intelligent Apps and Analytics | Cloud to the Edge | Event-Driven Model |
| Intelligent Things | Conversational Platforms | Continuous Adaptive Risk and Trust |
| | Immersive Experience | |

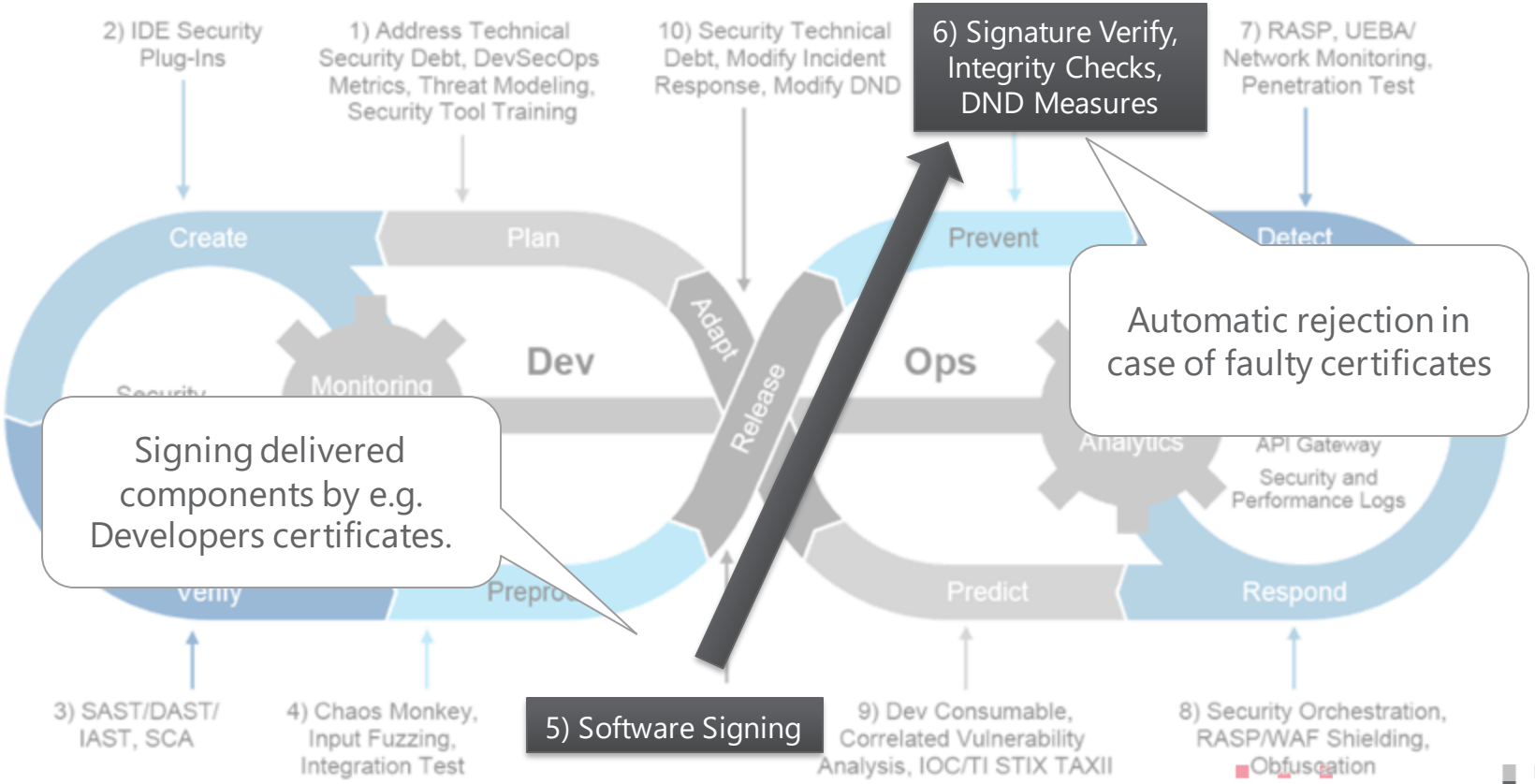
# Why „Sec“? Continuous Adaptive Risk and Trust



# Continuous Adaptive Risk and Trust: build-in security



# Continuous Adaptive Risk and Trust: build-in security



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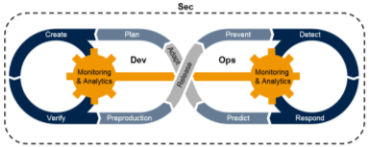
# Back to the benchmark … how to create?

# 1. Define the „why“ of the benchmark




- Understand what DevSecOps is about (What… not how)
- Recognize that it is a transformation process
- Assess where you are in this process right now. Find some easy-to-understand KPIs to describe this
- Create discussions between as many stakeholders as possible
- Develop ideas about what to do next and what not
- Regular progress control

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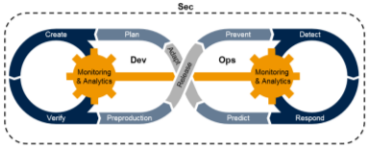
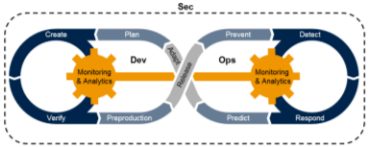
# 2. Define a kind of metrics




- A rating for the organizations state
- Typically a value between 1 and a maximum

| Minimal (1) | Basic (2) | Transitional (3) | Transformed (4) |
|---|---|---|---|
| The organization has taken virtually no steps towards DevOps and is not prepared for transformation. | There are first bottom-up approaches and isolated DevOps groups. There is a lack of a comprehensive concept and an organization-wide approach. | The basis for comprehensive DevOps of all systems has been laid. Not all restrictions have been eliminated. | Self-improving DevOps at its finest ☺ |

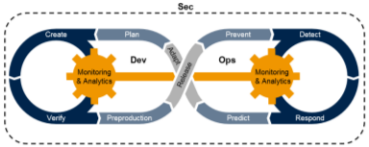
# 3. Define themes and categories




- Look at DevOps from different angles (themes)
- Later define categories for each theme to create even more structure

| People and Culture | DevOps agility | Business Value | Automation and tools | Security |
|---|---|---|---|---|
| Characteristics of organizational culture. The theme includes statements on customer focus, innovation, risk management and change management. | Organizational agility characteristics: maturity of e.g. Scrum, Kanban, use of agile practices, lean management. | Organizational characteristics that affect business value creation. | Statements about the use of automation testing, continuous integration and continuous deployment practices and tools. | Statements about the degree of integrated and lived security. Information security, privacy, technical security, governance and compliance. |

# 4. Define and assign statements




Each statement

- describes a fact. This is either true or false for an organization
- is assigned to exactly one topic and
- is assigned to exactly one maturity level

- Statements are categorized within a theme to steer the discussion, e.g. "Change management", "Testing", "Monitoring", ...
- Statements of varying degrees of maturity build successively on each other.

Some of us do not care about the result. They do minimal business.

Everyone in our team is willing to share & learn

There are no coding guidelines or they are not always respected.

We proactively participate to improve company policies

Sometimes our stakeholders are surprised by changes in the product.

Our Stakeholders are updated on roadmap progress each month

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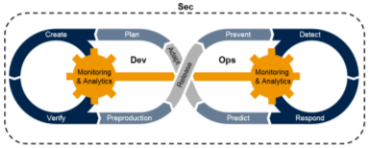
# 4. Define and assign statements




| | Level 1 Minimal | Level 2 Basis | Level 3 Intermediate | Level 4 Transformed | Category |
|---|---|---|---|---|---|
| Business Value | Sometimes our stakeholders are surprised by changes in the product. | We inform our Stakeholders about the changes in the product | Our Stakeholders review the changes in the product and provide us feedback on that | Our Stakeholders actively participate in the definition and outcome of the product | Feedback loops |
| | Larger changes are not always thought through in their effects. | The Product Owner or our Stakeholders create a business case for each accepted epic | Our Product Owner and Stakeholders jointly create a business case for any new epic | Our Stakeholders discuss business cases with the PO and other stakeholders, to come to clear prioritization | Business value |
| | Only a few decide how to prioritize the implementation of new features. | We collect input from relevant stakeholders when defining priorities. | We collect feedback from Customers and prospects when defining new features. | We make sure analysis of the market needs and prospected ROI are done, when creating a new feature | Value steering |
| | Our roadmap is not one. It is sometimes not traceable | We have an agile roadmap | Our Stakeholders are updated on | We plan based on the velocity rt and realize these plans | Roadmap planning |
| | | | | v a process when g changes to the ap | |
| | We do not know, or only vaguely, how new functions are accepted by the user. | We measure the usage of new features | We analyze the business cases to verify if they have been realized | The usage result of the new features is verified with all internal stakeholders, customers and Market | Validate value |
| | Not every one of our stakeholders knows why we realize what and when. | Our Stakeholders understand the backlog we proactively explain it. We measure this on a monthly basis. | Our Stakeholders feel they have an important role in the Backlog prioritization. We measure this on a monthly basis. | Our Stakeholder are satisfied with the features delivered by our team. We measure this on a monthly basis. | Stakeholder Happiness |
| | | | | We have a Stakeholder radar in place, and published. | |

Increasing requirements

# 4. Define and assign statements

- Done ☺
- The current assessment consists of 264 statements
- Each statement can lead to (heated) discussions during the assessment. Then you need a mediator ☺
- At least one should know exactly what is behind the statements - a moderator is beneficial

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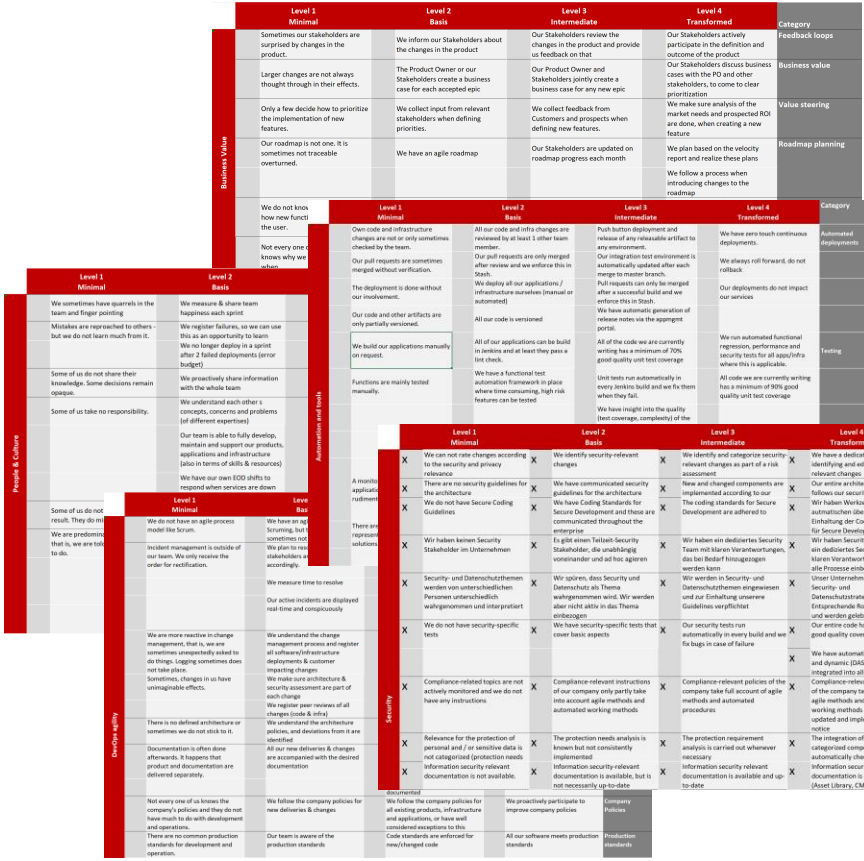
# Next: Perform an assessment

# 1. Get the right people

- Everyone from the (planned) DevOps team
- Every direct stakeholder, especially product managers and IT managers
- If possible the senior management

… plan to block them for at least one day





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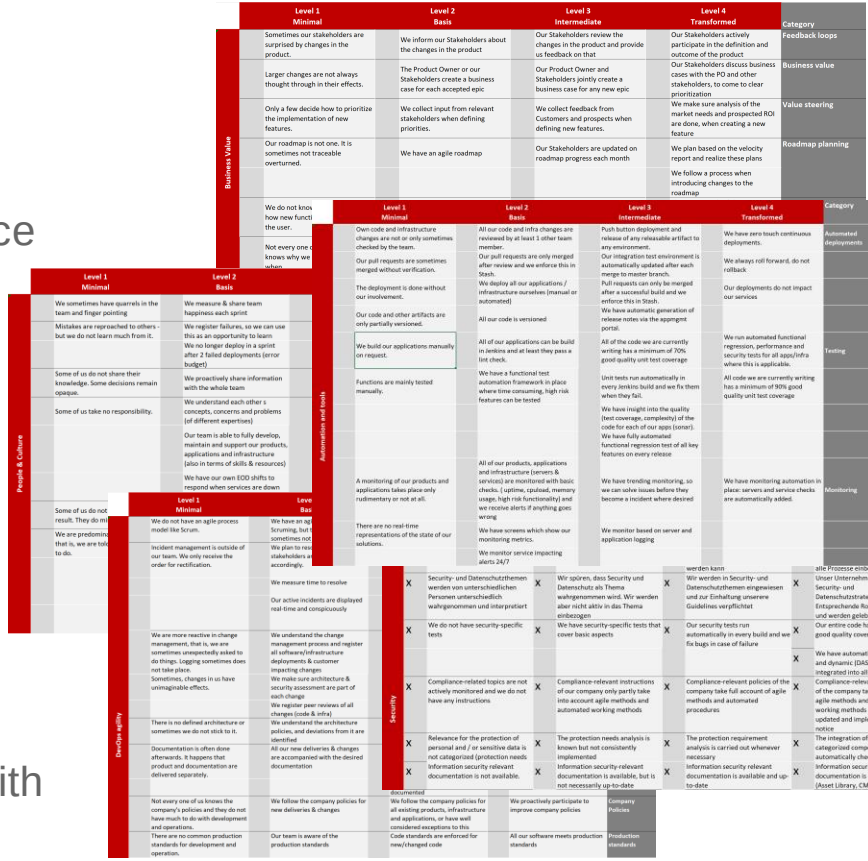
# 2. Perform the workshop

- Get people physically together. No conference calls! Care for the right environment
- Explain the procedure
- Ensure good logging of discussions
- Work through the themes and estimate the maturity level for each theme
- Then consolidate the results

For several DevOps teams:

- Collect the results and do the assessment with emissaries from the teams
- Create a consolidated view



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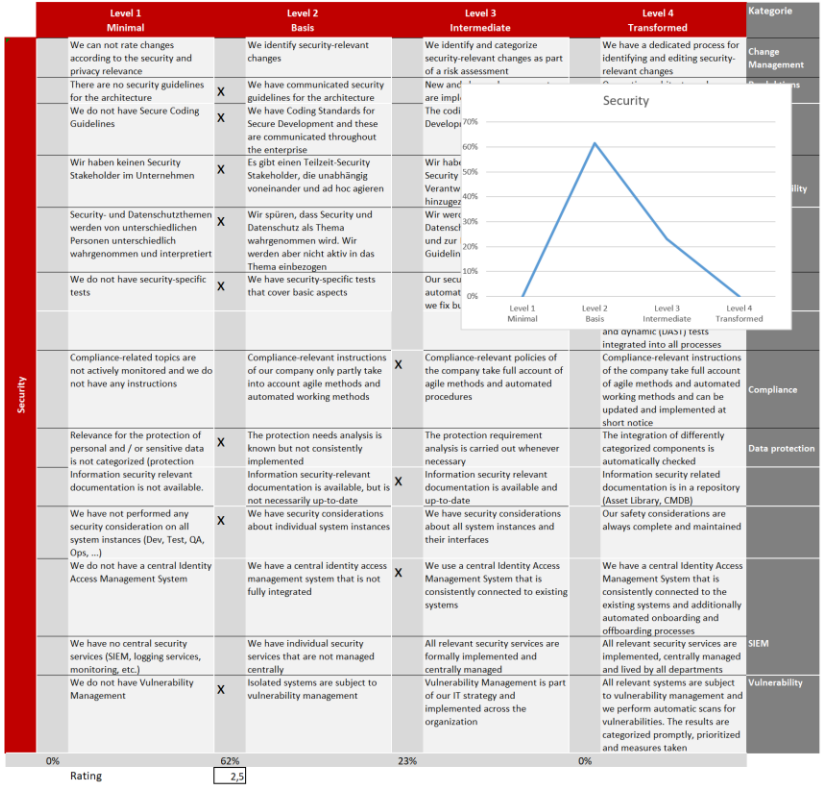
# 2.1 For each theme…

- Work line by line from left to right through the theme
- Discuss each statement and check the correct statement with the highest degree of maturity
- Also look at the statements of the higher levels that you can not check. What has to happen to get there?
- What has to happen so that you do not suddenly lose a set checkmark next time?
- Then estimate the maturity level for the topic based on the checkmarks
- Log everything!
- And take a break after each theme ☺




… expect discussions per statement between 1 – 60 minutes



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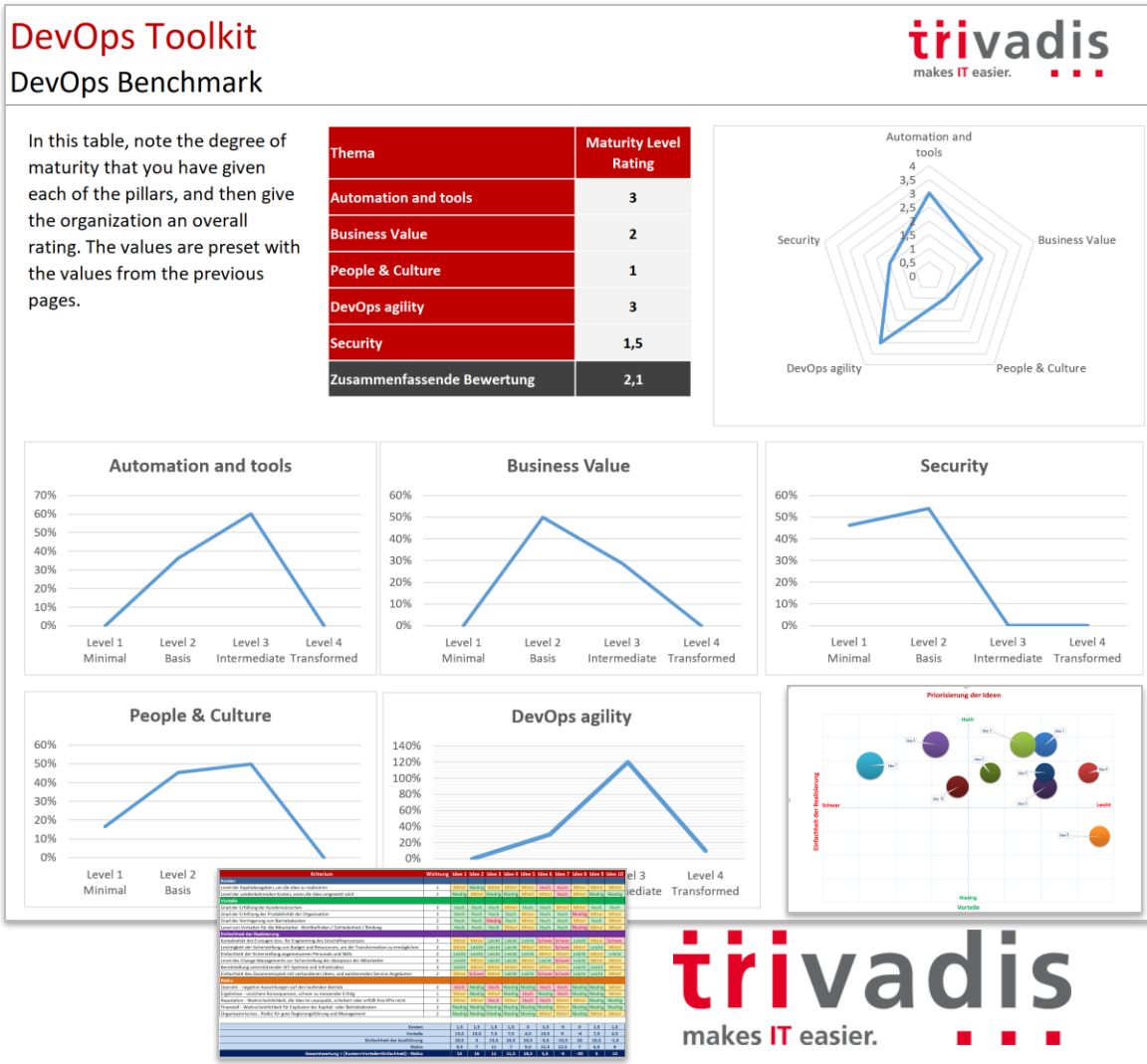
# 2.2 Consolidate

- You can determine a total degree of maturity by averaging

In subsequent workshops:

- Refine the logged statements and ideas
- Ensure prioritization
- Care for the implementation

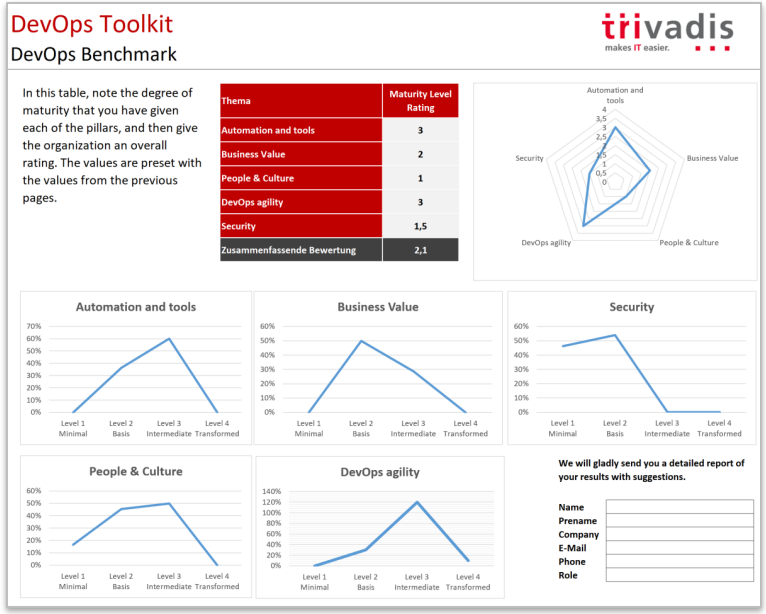
And schedule the repetition of the assessment at regular intervals



# Outcome

- A common understanding of what DevOps means to the organization
- An estimate of where you are in the transformation process. Simple KPIs that even a manager understands ☺
- Discussions between stakeholders and thus the basis for transparency
- Ideas as input for the improvement process

… and a regular progress check



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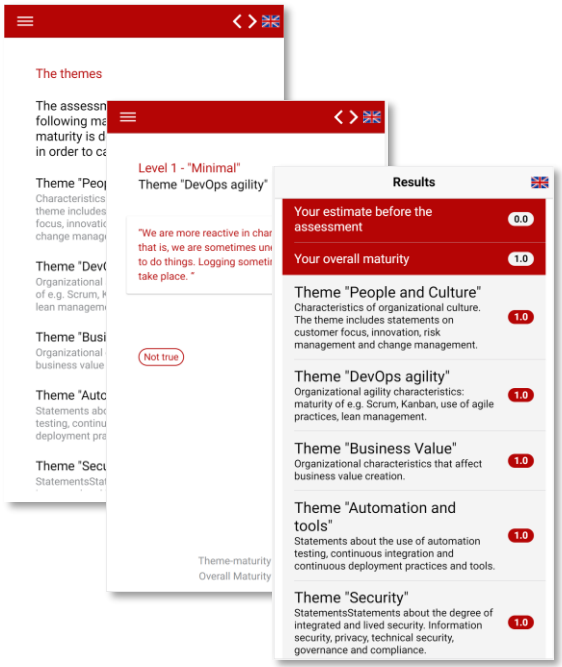
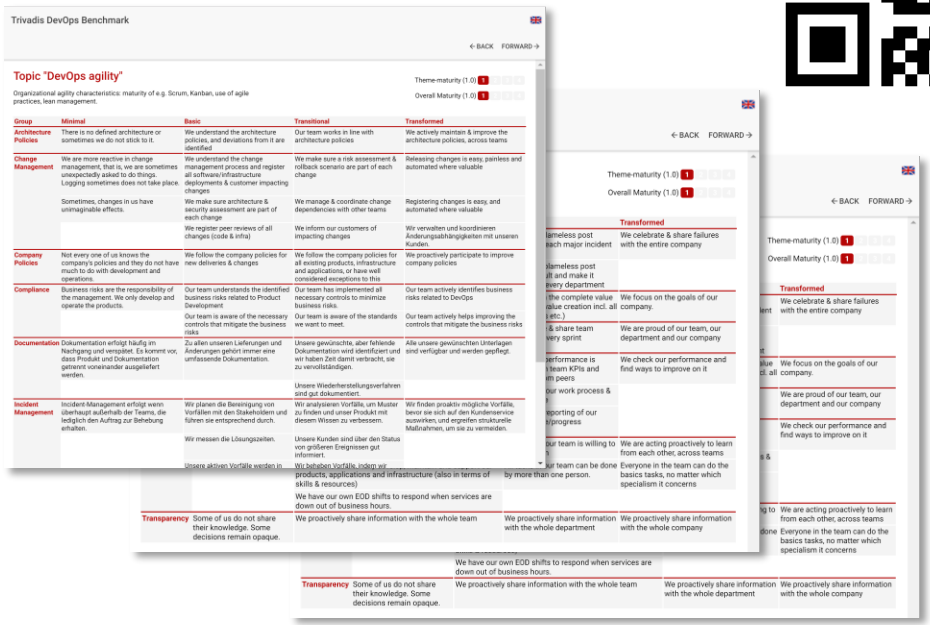
# DevSecOps Online Benchmark (experimental)

https://assessments.trivadis.com/devops



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# DevSecOps Online Benchmark (experimental)

- Gives an impression of how the benchmark works.
- Has (currently) the full scope of 5 themes, 4 levels and 264 statements/facts.
- Gives first ideas, where to stand and what to do
- Can NOT replace a moderated assessment
- Updated regularly

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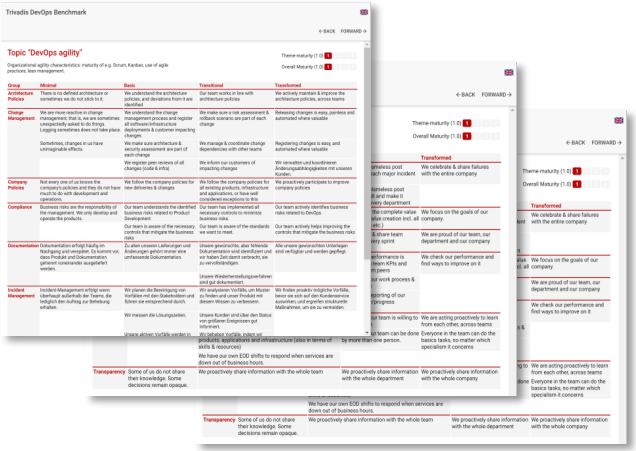


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# Thank you




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