Improving EAM Data Quality with LeanIX Surveys

Use Cases & Experiences

Matthias Schnell and Christian Patterer, November 26th, 2019

Agenda

1. General
   - Company information
   - Architecture drivers
   - Why LeanIX?
2. Our story
   - How we started
   - Survey use cases
   - System integration use cases
3. Q&A

EVN – Based in Lower Austria. Successful in Europe.

Lower Austria at a glance

Area:	19,186 km²
Inhabitants (2017)	1,665,753
Participation rate:	79.1% (A: 76.6%)
GDP per capita (2016):	EUR 33,200

Sources: Statistics Austria; Eurostat, Land Niederösterreich, WorldBank, Bank Austria, AMS

EVN – Energy business in six countries

	Grid	Electricity	Gas	Heat	Hydropower	Windpower	Photovoltaics	Biomass	Thermal Energy
Albania					✓*				
Bulgaria	✓	✓		✓		✓	✓		✓
Germany		✓	✓		✓**				✓***
Croatia	✓		✓						
Macedonia	✓	✓			✓				
Austria	✓	✓	✓	✓	✓	✓	✓	✓	✓

* EVN share: 50%

** EVN share: 13%

*** EVN share: 49%

EVN – Environmental services in 18 countries

	Drinking water supplies	Wastewater disposal
Bahrain		✓
Germany	✓	✓
Denmark		✓
Estonia		✓
Croatia		✓
Latvia		✓
Lithuania		✓
Montenegro	✓	✓
Austria*	✓	✓

	Drinking water supplies	Wastewater disposal
Poland		✓
Romania		✓
Russia**	✓	✓
Serbia	✓	
Slovakia		✓
Slovenia		✓
Czech Republic		✓
Turkey		✓
Cyprus		✓

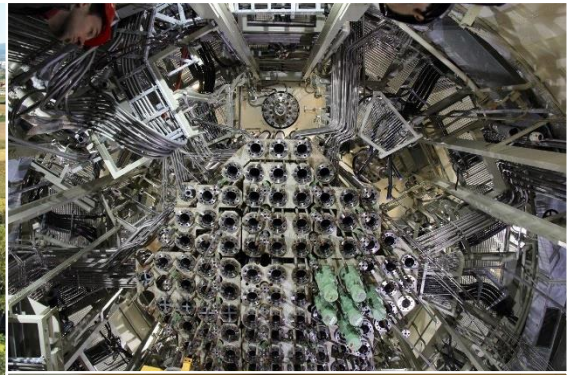
* thermal waste utilisation, drinking water supplies

** thermal waste utilisation

EVN – Some key figures

- Revenue
  - 2017/2018 ~ 2.200 Mio. EUR
- Employees
  - Worldwide ~ 6.800
  - Austria ~ 2.400
  - IT in Austria ~ 130

EVN – Zwentendorf



Main architecture drivers

Application Strategy	→Transparancy across system landscape →Central list of product owners - IT and business responsibilities →Which systems are in use and planned →Overview of Business Capabilities – User Groups
GDPR	→Overview of Applications and Data Objects →Overview of Applications with (sensitive) personal data
Risk Management	→Identify business/technical critical systems →Identify technology dependencies →NIS (Netz- und Informationssystemsicherheitsgesetz)
Security	→Overview of identity and access management →Overview of role based acccess control

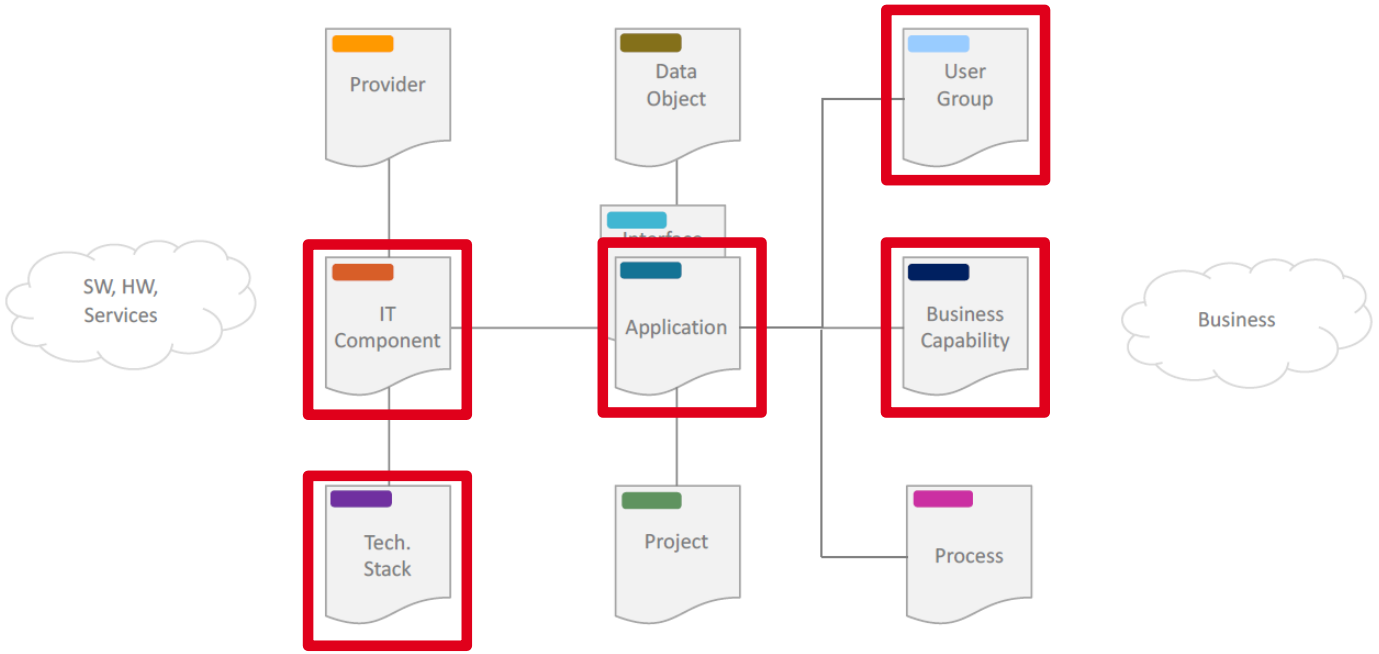
Need for EAM tool with collaboration capabilities

- → High number of applications and complexity
  - – Multiple companies/subcompanies
  - – More than 700 applications
  - – More than 1.400 servers
- → Architecture team consists of three members (≠ 3 FTE)
- → Information maintenance needs to be shared
  - – Every IT employee has read/write access
  - – Business departments will have at least view access
  - – Surveys help to request specific information

Why LeanIX?

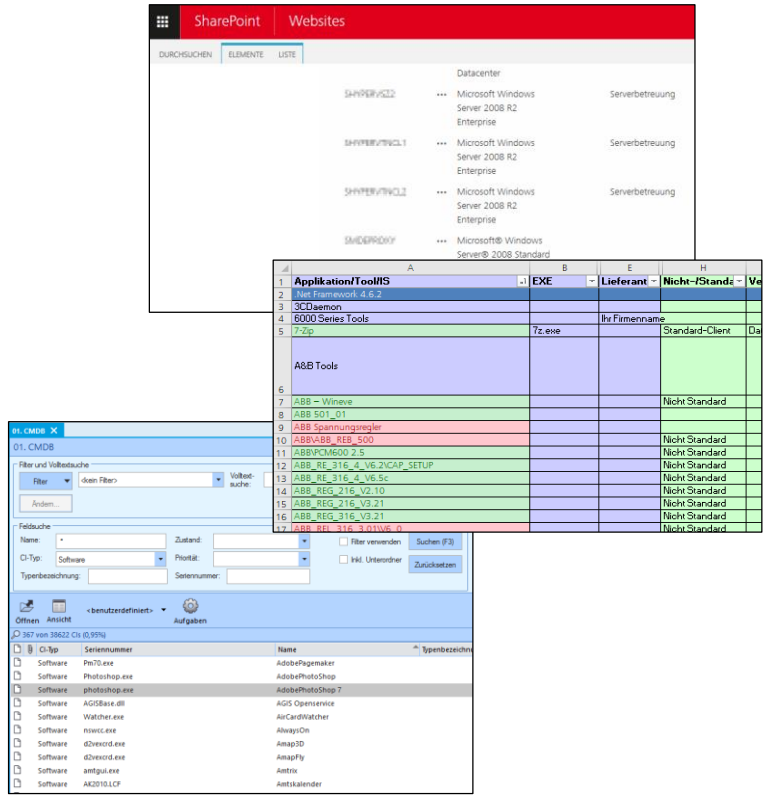
- → Intuitive user interface
  - – Essential as many people work with the solution (infrequently)
  - – Low onboarding and training effort
- → Collaboration features
  - – Surveys
  - – Comments
  - – Notifications
- → Out of the box reporting functionality
- → Efficient import-/export functionality

How we started – Main fact sheet types

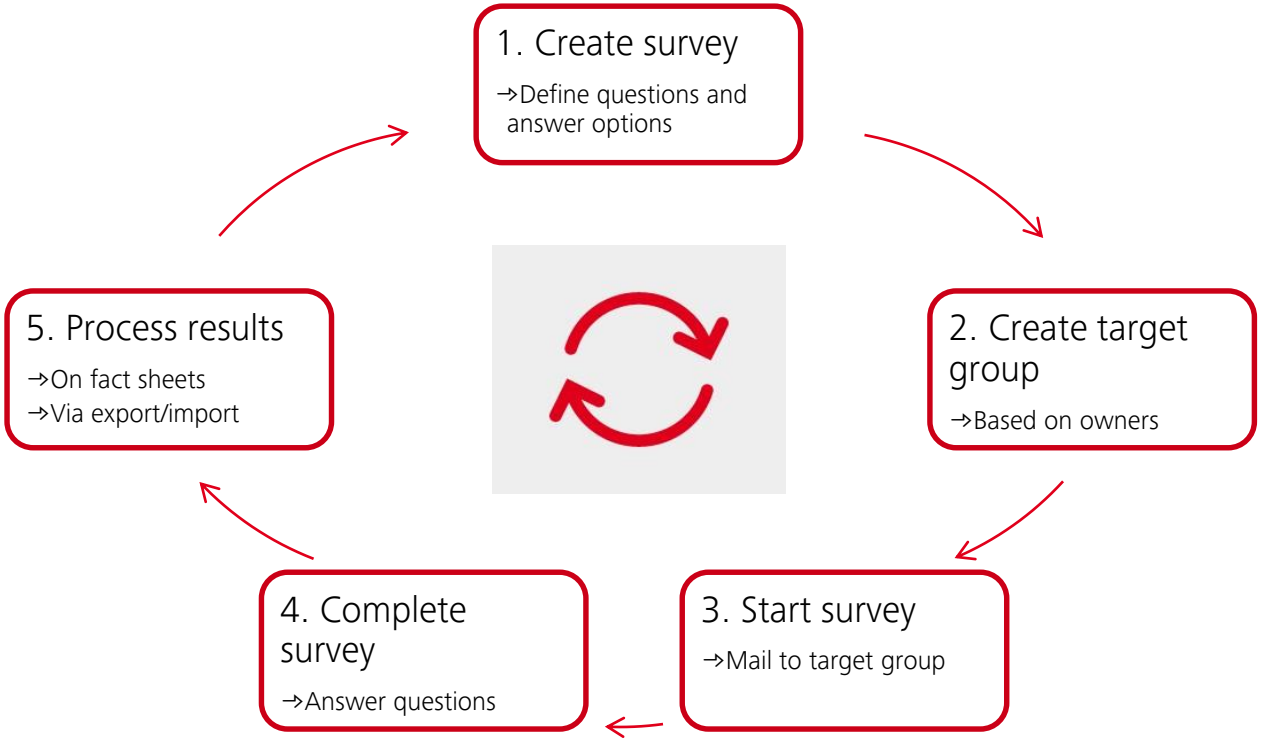


How we started – List of basic application infos

- Goals & key information
  - Central list of current applications
  - Clarified responsibilities
- Approach
  - Created initial list based on different sources
    - ITSM Tool, Excel Lists, Helpdesk Lists / SharePoint, …
  - Import in LeanIX

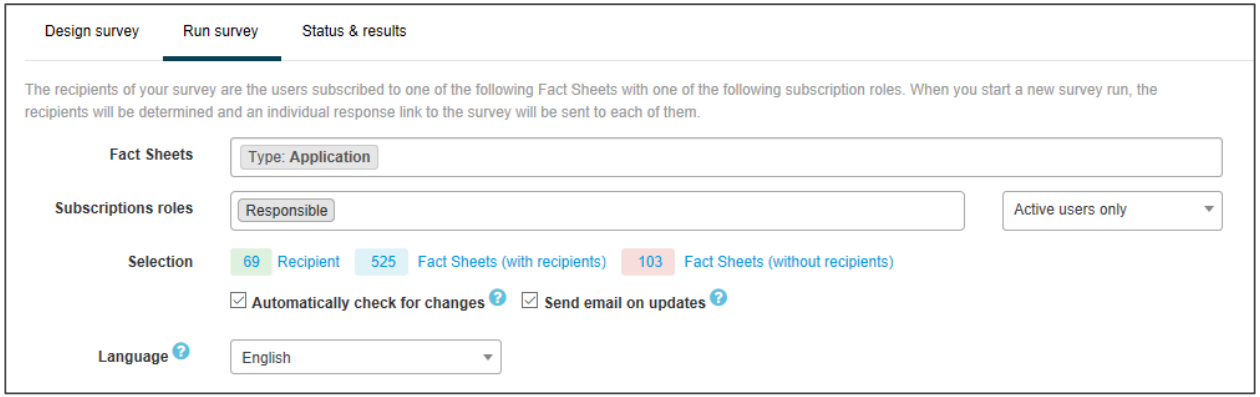


Survey process

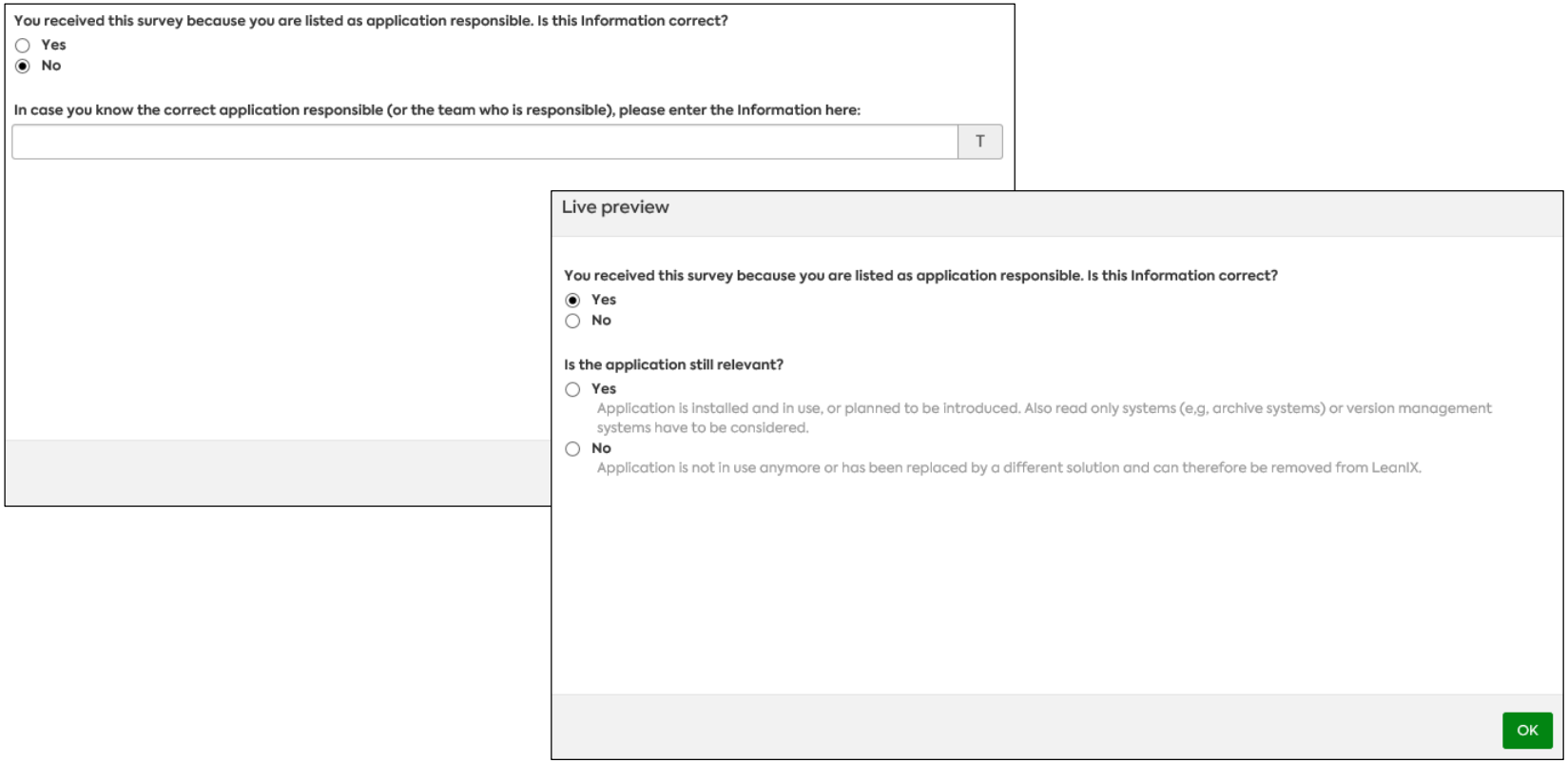


Survey – Basic application information

- → Is the application still relevant and in use?
- → Who is responsible
  - – IT responsibility
  - – Business responsibility



Survey – Basic Application Information



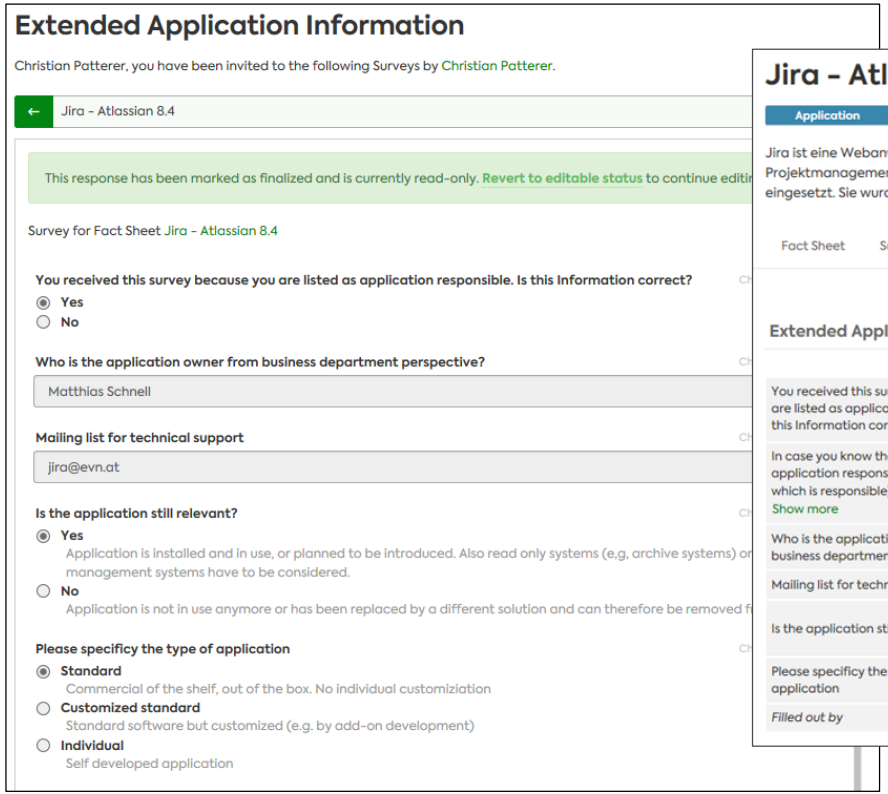
Survey – Extended application information

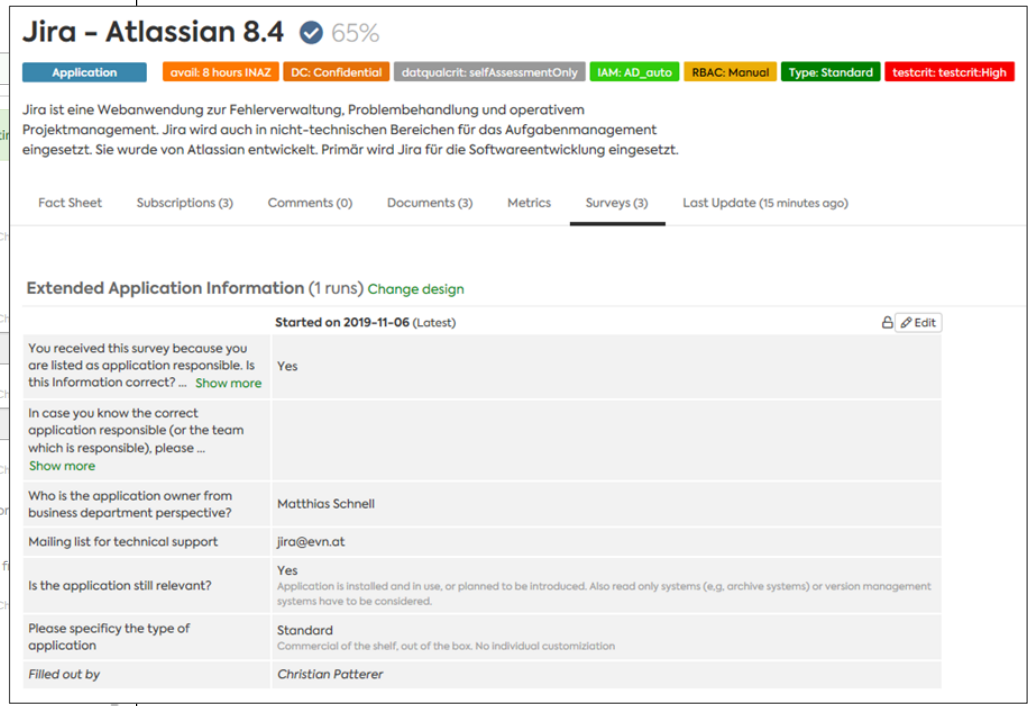
→ Inquired information

- Responsibilities incl. business departments
- Relevant (yes / no)
- Standard / Customized / Individual
- Correct application name and description
- Usage of personal data
- Usage of Java
- Identity and access management
- Need for action

→ Survey was sent to approximately 70 people

Survey – Extended application information

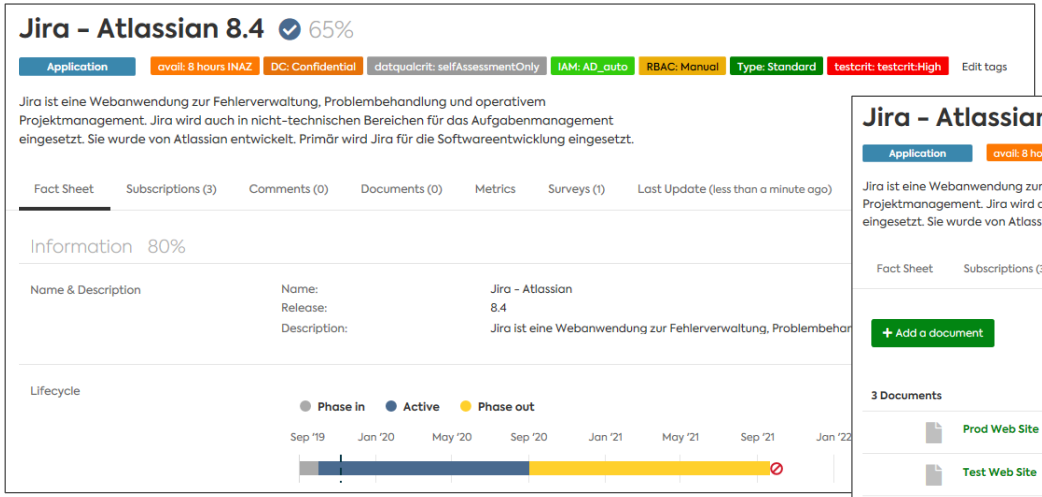


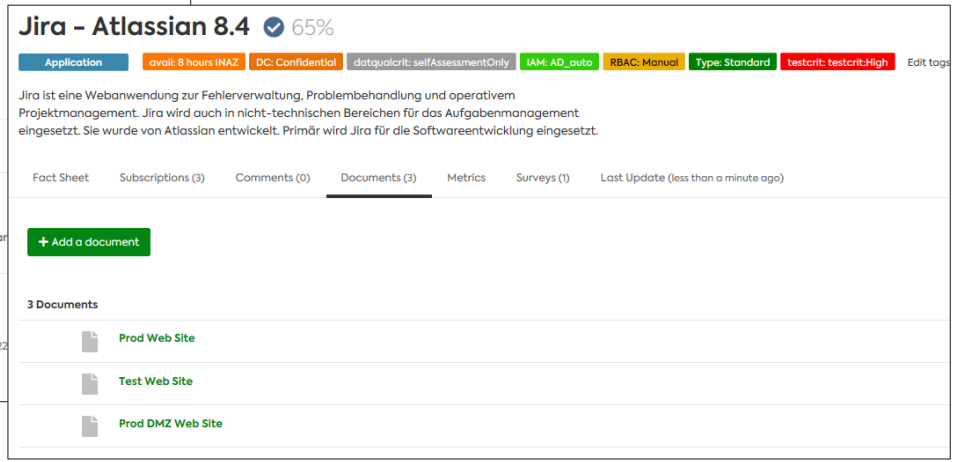


Questions we can address now

→ Detailed information in a central place

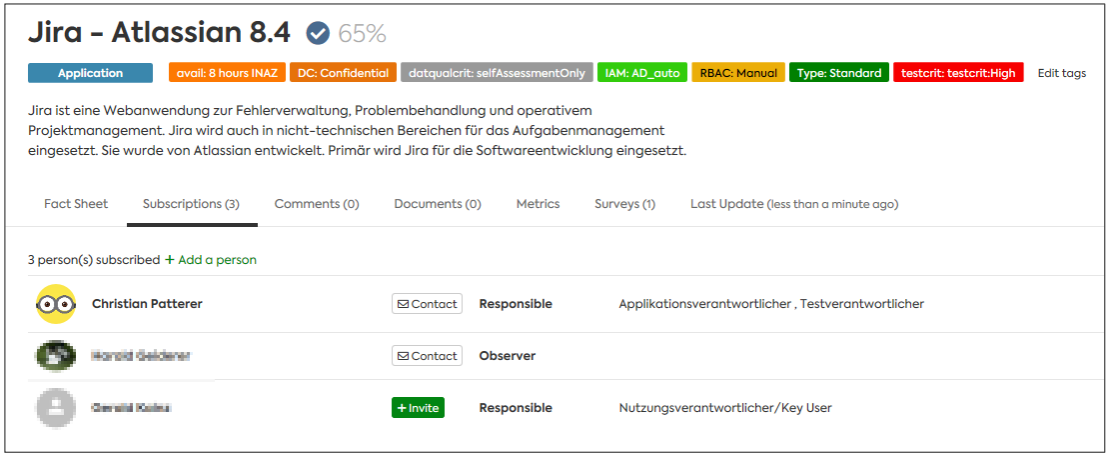
- Description of an application
- Links for further reading or to implemented systems





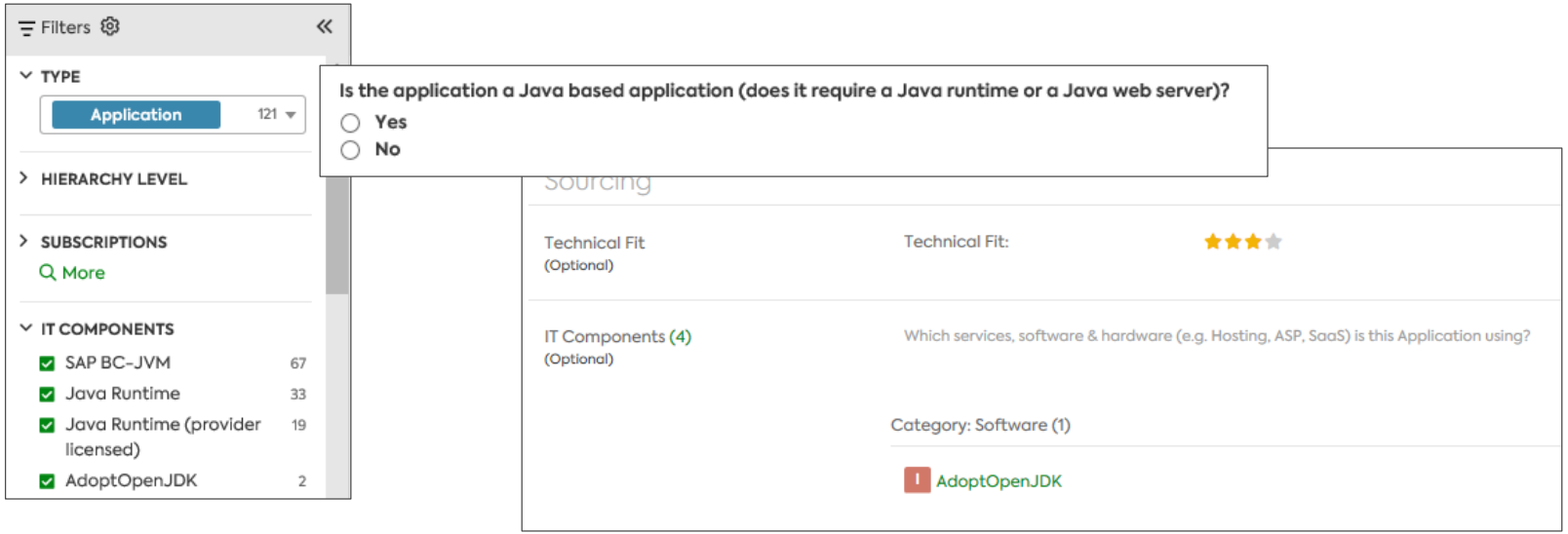
Questions we can address now

- → Central overview of responsibilities
  - – Who is responsible for an application
  - – Who is responsible for which applications
- → Overview of standard, customized and individual applications



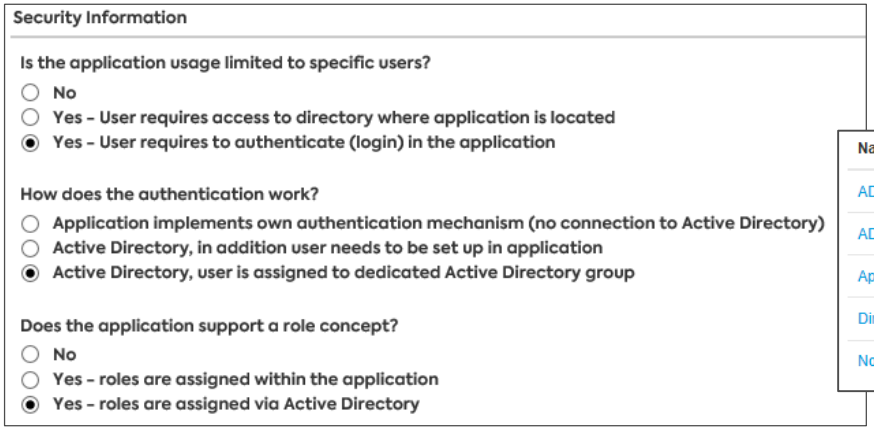
Questions we can address now

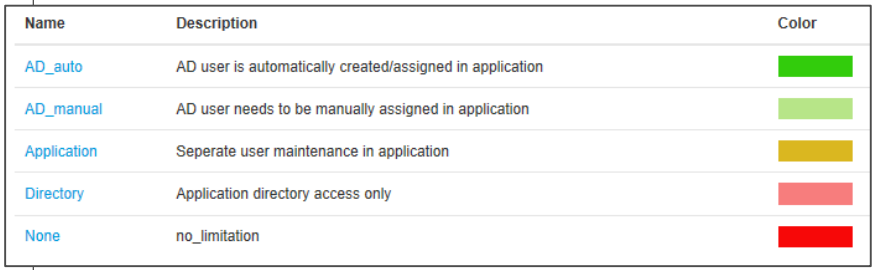
→ Address Java commercialisation



Questions we can address now

- → Overview of identity and access management as basis for addressing security challenges
- → Filter via tags
  - IAM - Identity and access Management
  - RBAC - Role based access control





Questions we can address now

→ Find applications with personal data

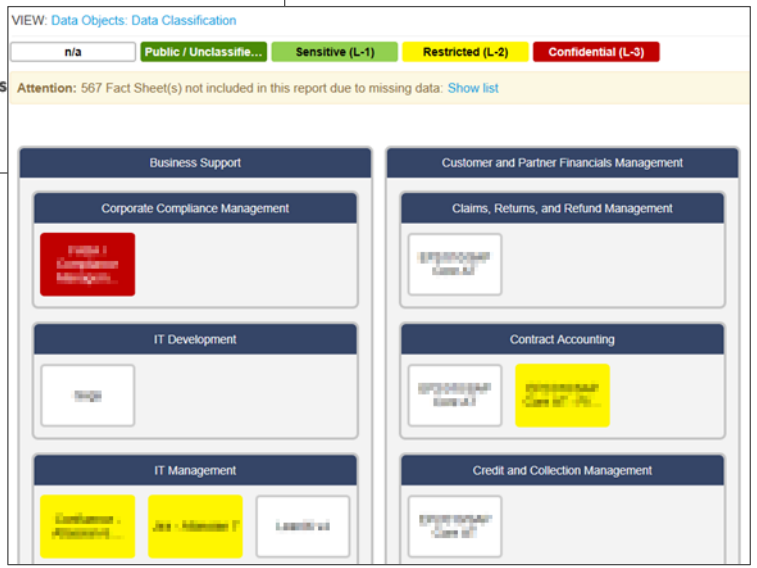
Personal Data

Is personal data processed in the application (according to GDPR)?

- (●) Yes
- ( ) No

Is sensitive data processed in the application (genetic data and biometric data such as fingerprints, iris

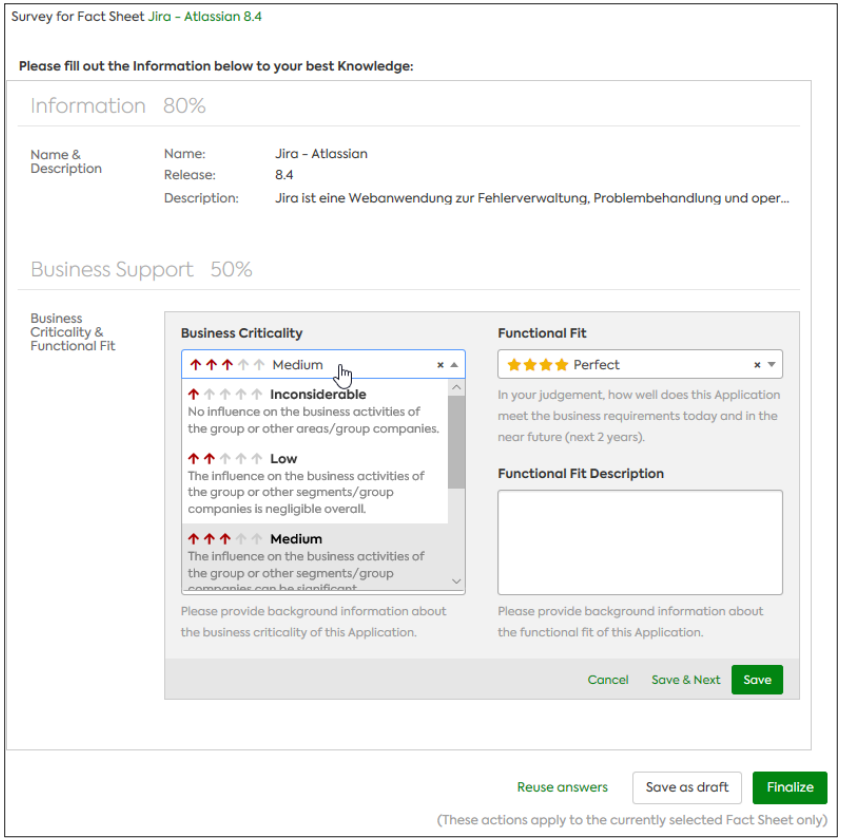
- ( ) Yes
- ( ) No



Immediate benefits

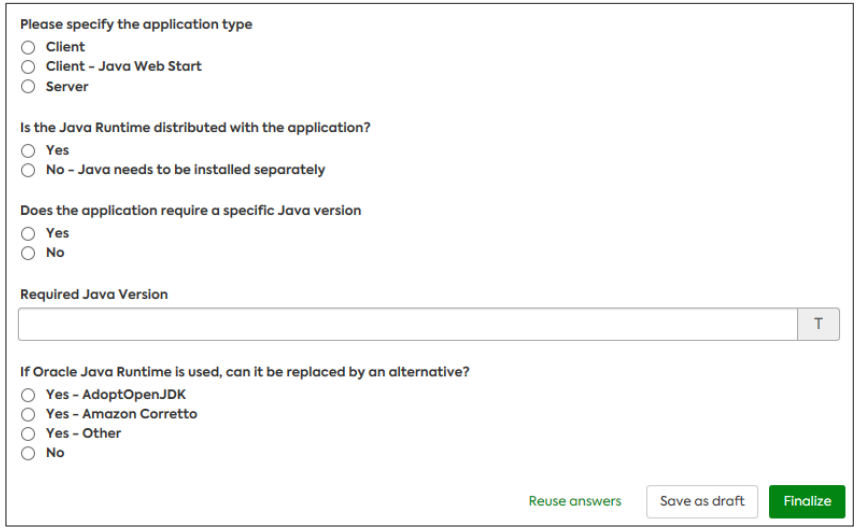
- → Deleted 100+ applications from repository
- → Common basis for further activities
  - – Input for security team for security processes
  - – Input for Java commercialization topics
  - – Input for GDPR activities
- → Reduction of Excel lists

Some smaller surveys – Business information



- What
  - Input from business side regarding criticality and functional fit
- Why
  - Overview of critical systems
  - Relevant for maintenance windows, disaster recovery etc.
  - Used in emergency manual

Some smaller surveys – Java Alternatives



- What
  - Input from IT for potential Java alternatives
- Why
  - Relevant to find non commercial Java options or clarify Java need
  - Client as well as server side alternatives

Learnings from using surveys

→ Pro's

- High return rate > 85%
- Only few questions related to answering surveys
- Conditional questions improve user experience
- Embedding fact sheet segments reduce subsequent work
- Automatic e-mail distribution
- Automatic e-mail redistribution (e.g. if responsible changes)

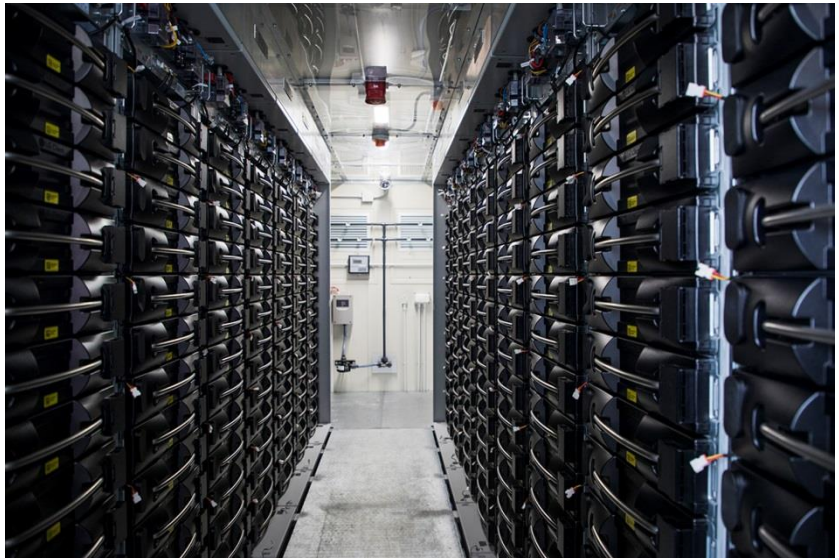
→ Con's

- Filling out fact sheet segments is not always intuitive for end users
- Processing answers from other question types (non fact sheet segments) require subsequent work
  - Direct update of tags would be helpful
- No reminder e-mail functionality
- Export/import requires rework
  - Name includes application version
  - Column titles are different

Learnings from using surveys

- Formulate meaningful questions
  - Keep in mind what you will do with the results
- Try to keep the survey short
  - In many cases people do this on top of their regular work
- Inform people of upcoming survey
  - Especially if people are new to the topic
  - Mail might look like spam to them
  - Give them context

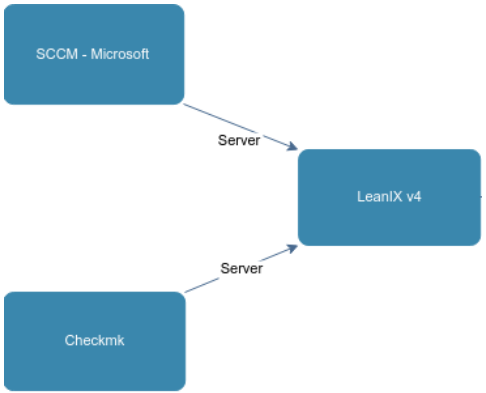
Integration of Servers



- Essential to answer questions
  - Clarified responsibilities for infrastructure components
  - Impact of server failures, OS and DB upgrades and patches etc.
  - Timely identify technical risks
- Why not maintaining manually
  - 1.400+ servers
  - Frequent changes (new servers, etc.)
  - Info already available in other systems

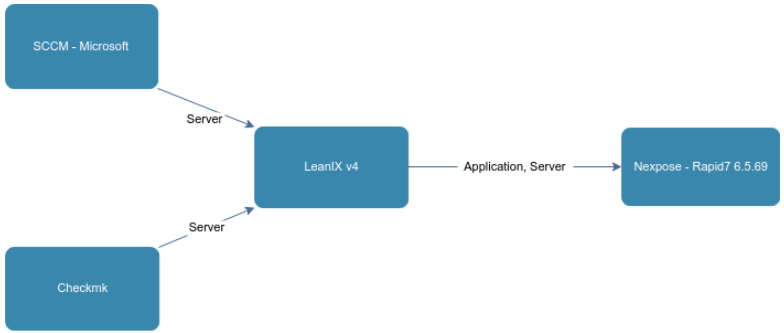
Integration of Servers - Approach

- Source for information
  - Microsoft SCCM for Windows server
  - CheckMK for Linux server
  - Available information: server name, operating system, status
- Integration via LeanIX API (GraphQL)
  - Using integration middleware
- Adressing previous questions requires server/application relation
  - Manual via survey

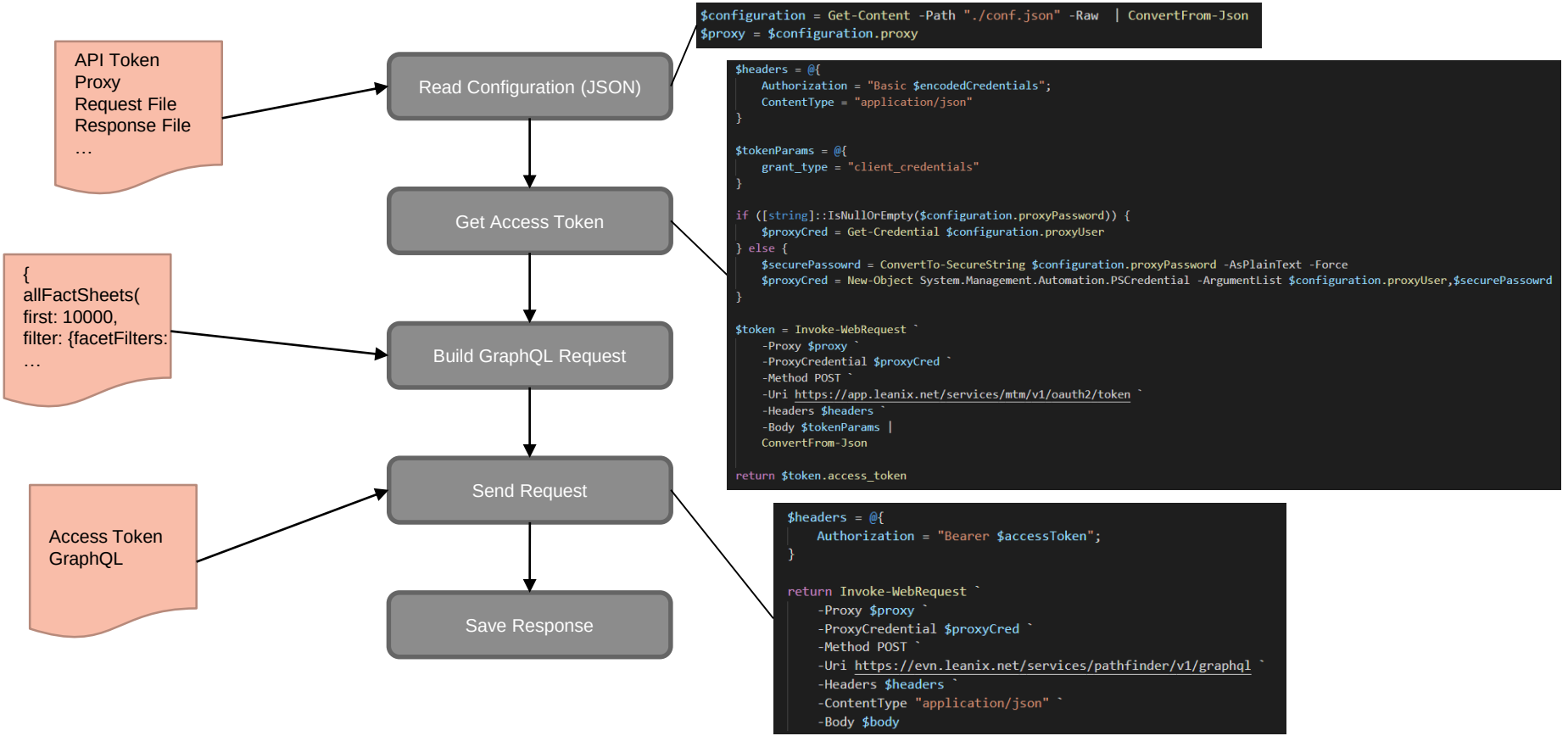


Integration of Servers – Additional use case

- Integration with vulnerability management software
  - Software scans network devices to identify potential vulnerabilities
  - LeanIX application business criticality defines criticality of servers and sequence of next steps
- Integration via LeanIX API (GraphQL)
  - Using PowerShell



Integration using PowerShell



Take Aways

- → Collaboration is the best approach
  - – Talk to each other
  - – Convince people by demonstrating benefits for their roles
- → Document only data that adds value
  - – Accept that data will never be 100% complete
- → Tool support is essential
  - – Intuitive user experience for user acceptance
  - – Collaboration features are key
  - – Trusted central repository eliminates redundant information
- → Integrations improves data quality and completeness

Vielen Dank für Ihre Aufmerksamkeit!

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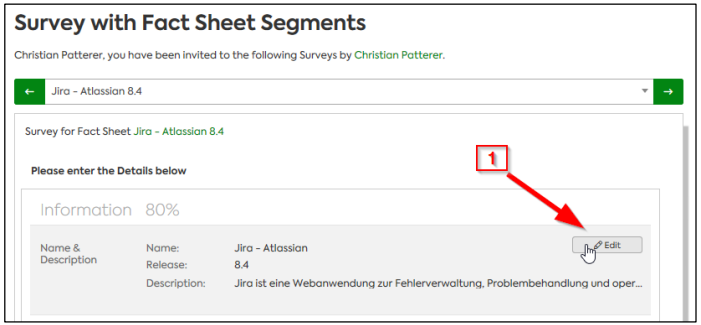
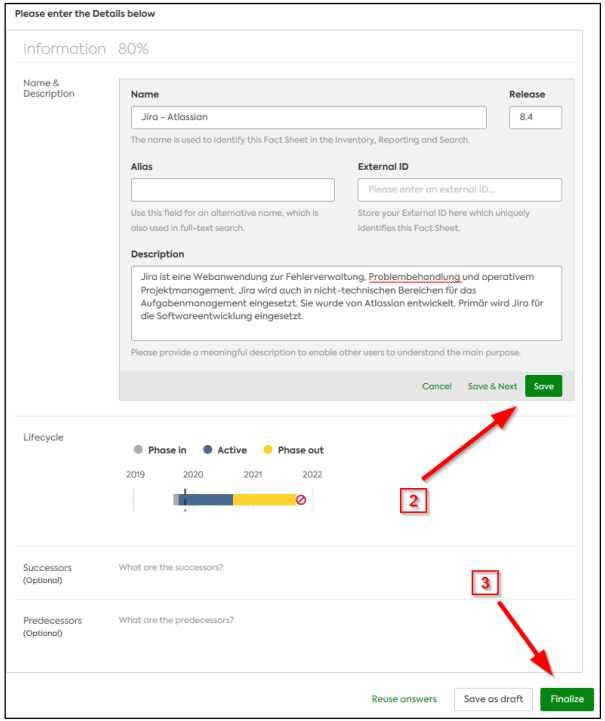
Appendix

Using surveys – Details

→ Usability of fact sheet segments





Using surveys – Details

→ Export/import format

	A	B	C	D	E	F
1	User	Fact Sheet ID	Fact Sheet Title	Status	Response Number	Last save time
2	Christian.Patterer@evn.at	0f3a1eb8-89ef-4569-adee-db5f0284eebd	Confluence - Atlassian 7	NEW	1	No answer given yet

	A	B	C	D
1	**id**	**type**	**name**	**displayName**
2	**ID**	**Type**	**Name**	**Display Name**
3	0f3a1eb8-89ef-4569-adee-db5f0284eebd	Application	Confluence - Atlassian	Confluence - Atlassian 7