The Power of Data in Modern Product & Service Management

Pavel Minarik

VP Technology, Progress Software

Alumni FI MUNI

Short Bio & Disclaimer

- 2005, Master degree in theoretical informatics, FI MUNI

- 2012, Doctoral degree in informatics, FI MUNI

- 2016, Master of Business Administration, University of Applied Management

- In IT industry for 25+ years

- Part of the team that established SSME curriculum at FI MUNI (led by Zdenko Stanicek)

- Start-up proven track as CTO at Flowmon Networks & Kemp Technologies

- Current responsibilities as Vice President of Technology in Progress:
  - Product management for Flowmon product family
  - Experimental development & horizon 2-3 roadmap
  - Member of the M&A team, product & engineering due diligence expert

- Disclaimer: My experience relevant for B2B, enterprise IT, product company. All the numbers and figures in the presentation are pure examples and have nothing to do with Progress products.

Change of the software distribution paradigm

- ROM (read only memory)
- Floppy discs and CDs
- Electronic distribution
- Software as a Service
- Add true services on top
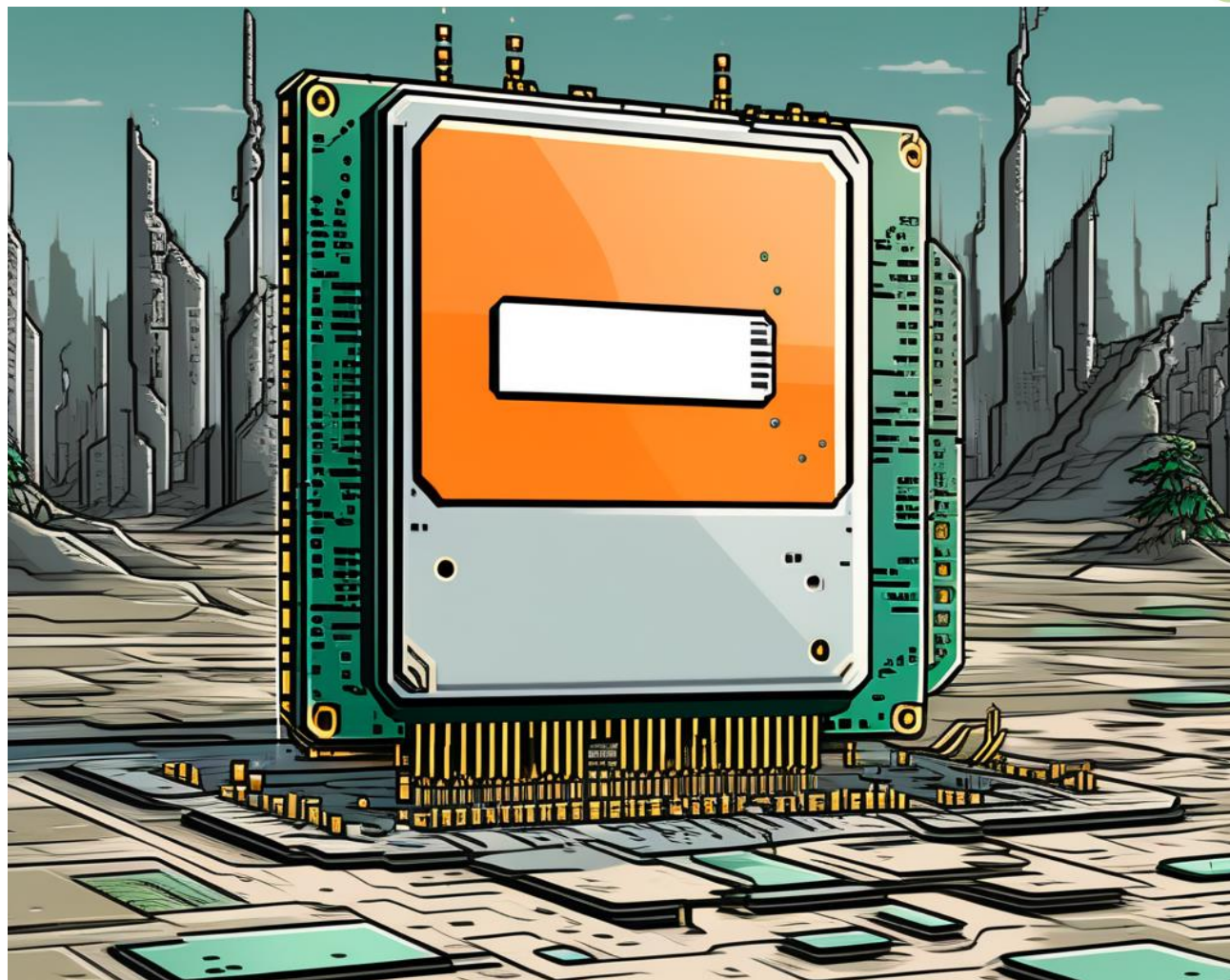
Evolution of the software licensing paradigm

- Perpetual licenses

- Subscription model

- Hosted software (fake SaaS)

- True pay as you go & grow

Change of the software development paradigm

- Waterfall

- Agile

- Fit for purpose

Enablers of agile transformation

- Shortening of the delivery cycle

- Agile transformation

- Role of a product manager

- Product vision

Data driven approach

- Lack of full scope specification

- Decision driven by data

- MVP (Minimal Viable Product)

- Continuous experimentation and validation

- Avoid "product managers dreaming in Ivory towers"!

- Understand your product or service usage patterns

Qualitative vs. quantitative approach

- Can we remove a feature?

- Let's ask the sales team

- Let's ask the customer

- Asking the right question the right way

- Measured vs. observed

Example: your software does not fit on my phone!

- How may users is using the software on a smartphone?

- Track device types and collect that information in your call home data

- Support your arguments with the data


Device

Smartphone: 0.5 %

Desktop: 99.5 %
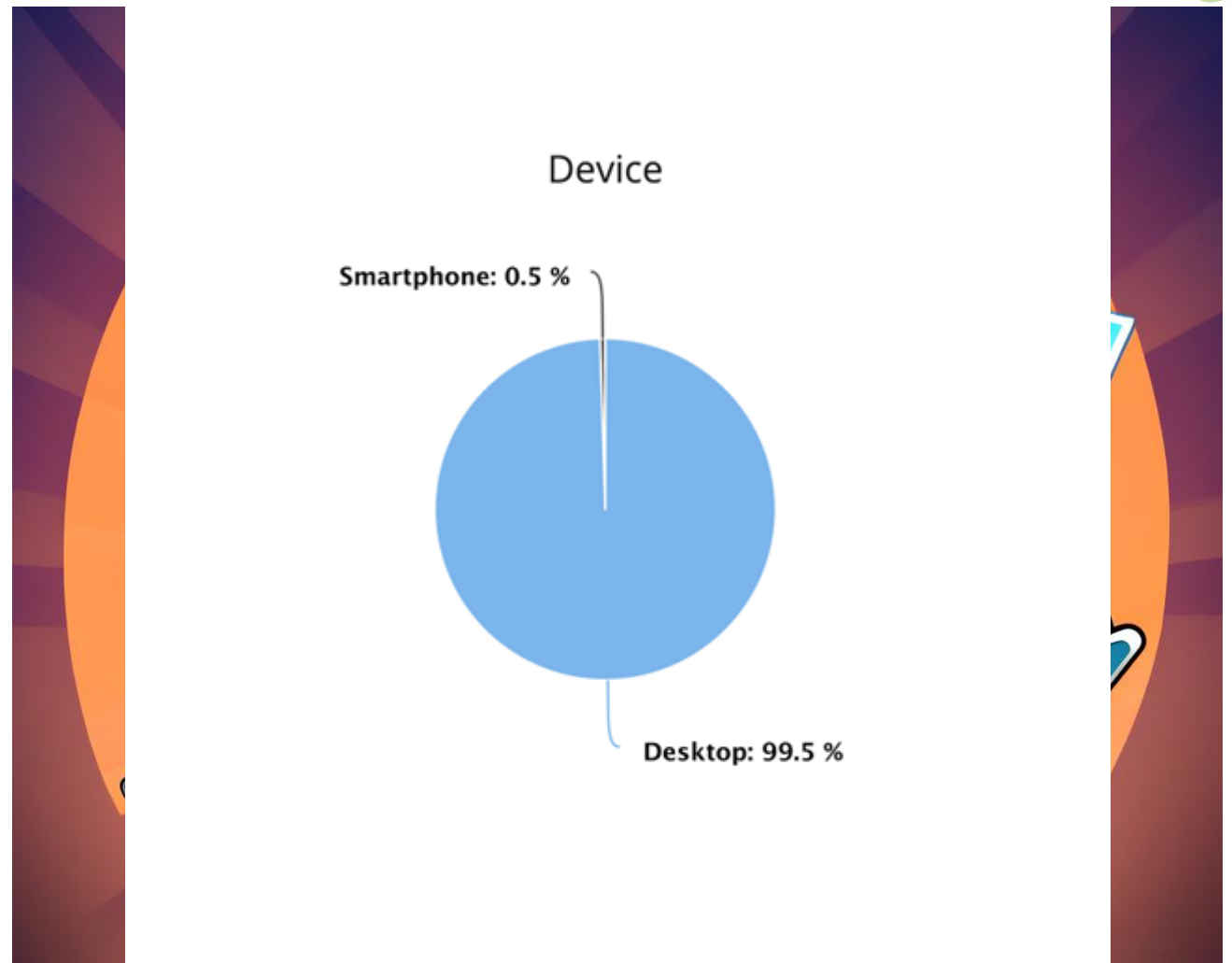
Example: you need to localize your user interface!

- How may users are using the existing software localizations and how much does it cost to maintain those?

- What is the required one time investment as well as cost of continuous maintenance of a new localization?

- Bring the hard data on the table for a business decision

GUI language

Spanish: 0.2 %
French: 0.6 %
German: 1.3 %
Japanese: 8.5 %
Czech: 38.0 %
English: 51.4 %
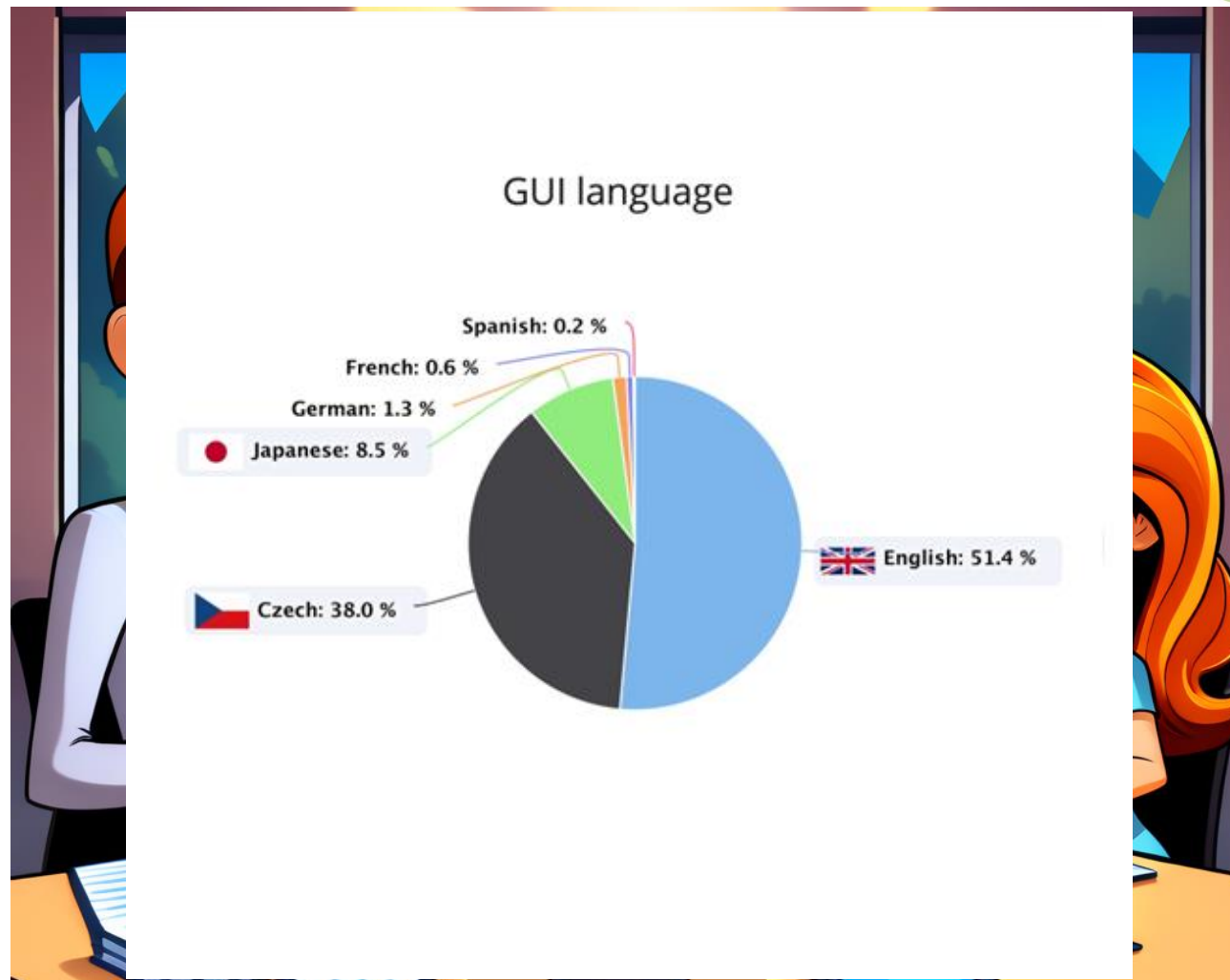
Pandora's box of product metrics

- Individual data points require contextualization and interpretation

- Product and feature adoption

- Time to value

- Feature funnels and completion rate

- Make sense and use of the data

- In product guidance and feedback loop
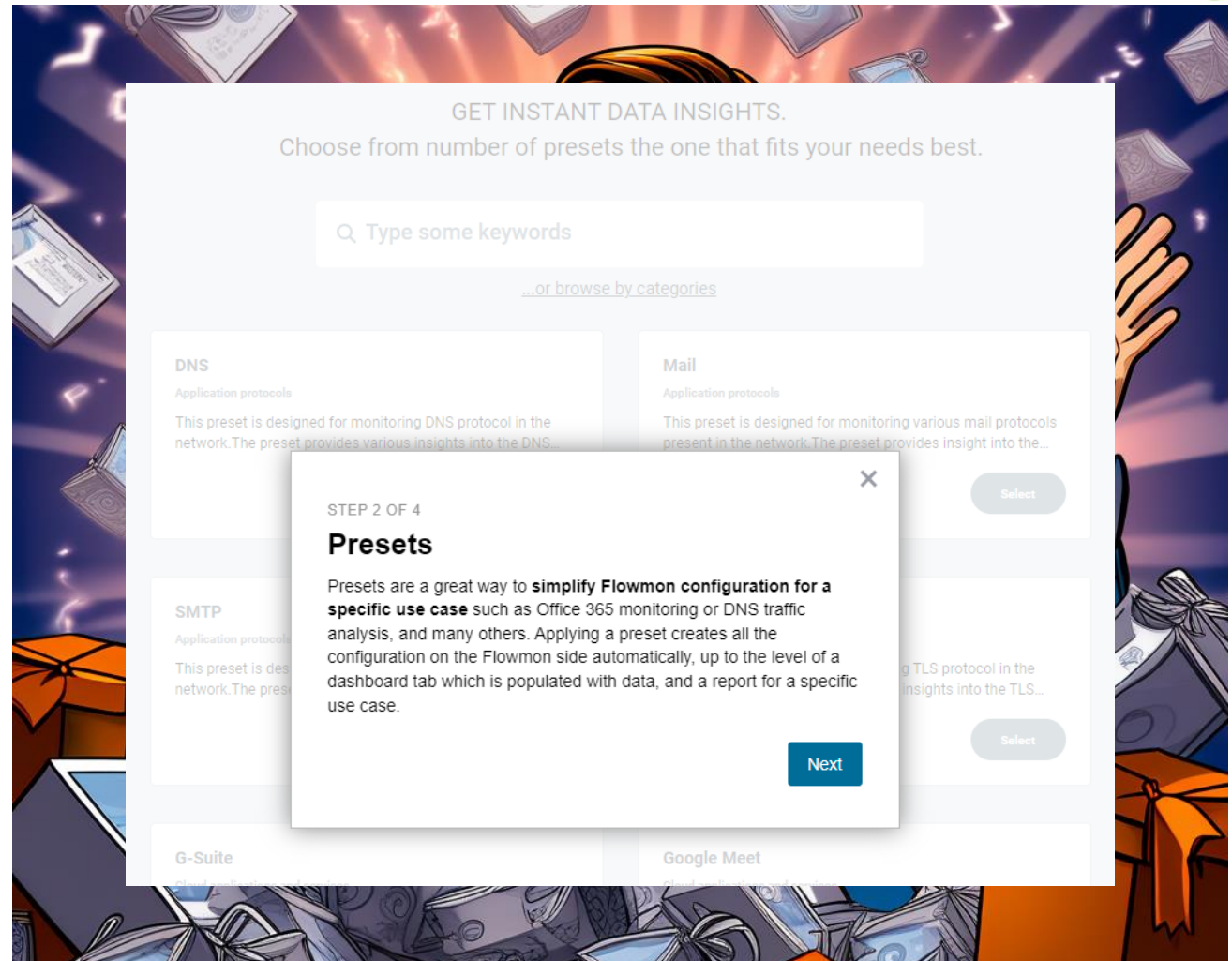
Time for a qualitative feedback

- General product opinions

- Feature specific feedback

- Frequent use cases

- Job title

- Usually combined with quantitative "satisfaction" rate
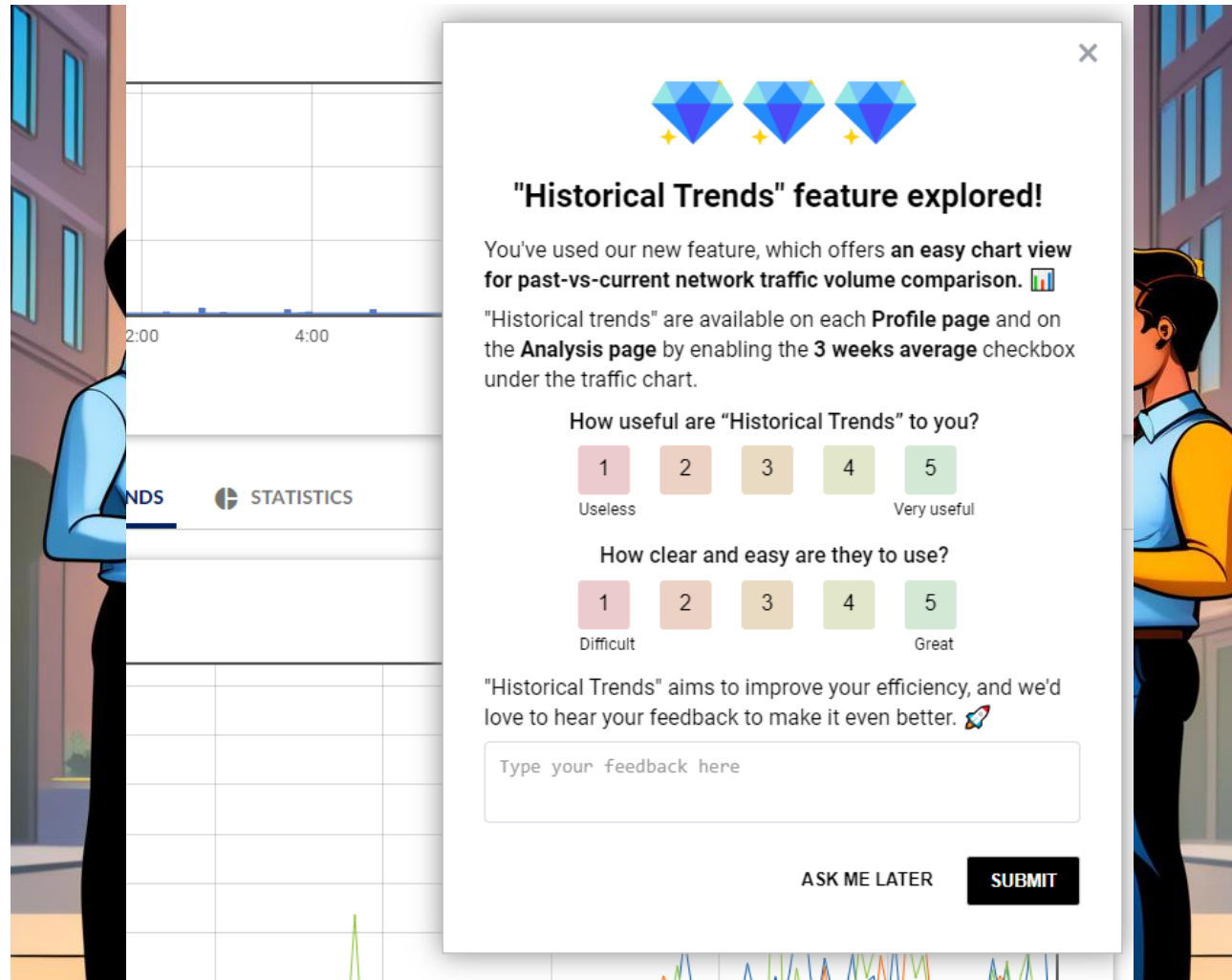
What software development metrics to consider?

- Thousands of metrics available

- It's hard to understand or improve what you do not measure

- Shape of a release as the ultimate mirror and a chronicle of the development team

Shape of a release

- What is your shape of release?

- Which one is a wrong shape of release?

- **A**: Last release was a disaster, we are now jumping from one support case to another and fixing bugs extensively.

- **B**: We have accumulated technical debt that we are now dealing with.

- **C**: We are focusing on getting the MVP out as a public beta.

- **D**: Business as usual, mixture of new development and technical debt removal with a bit of support and bug fixing here and there.
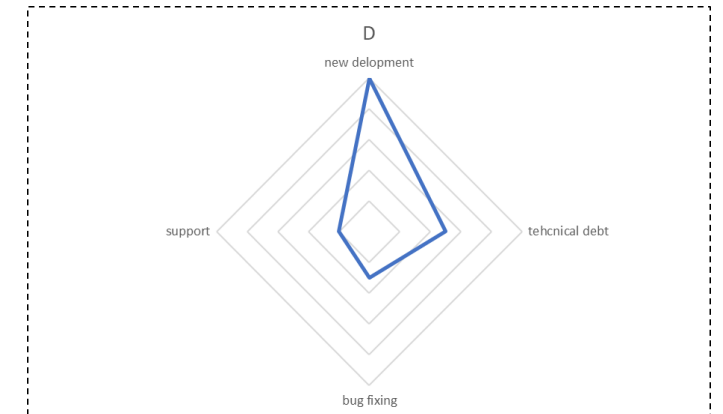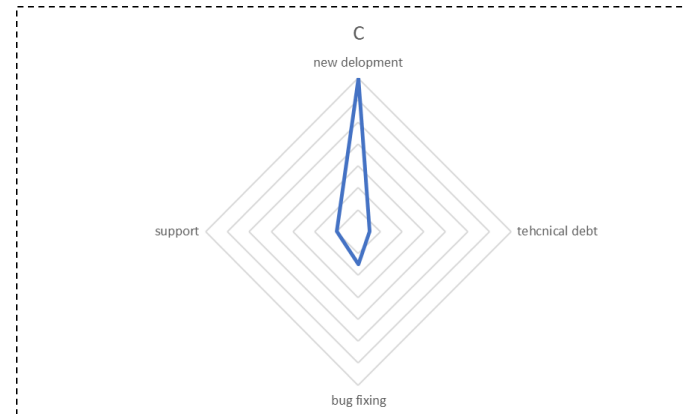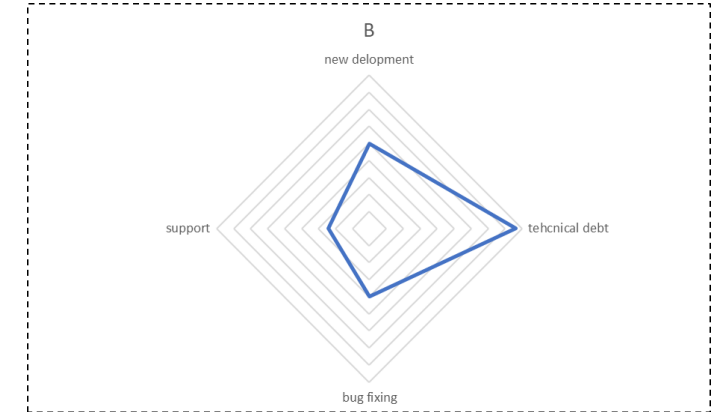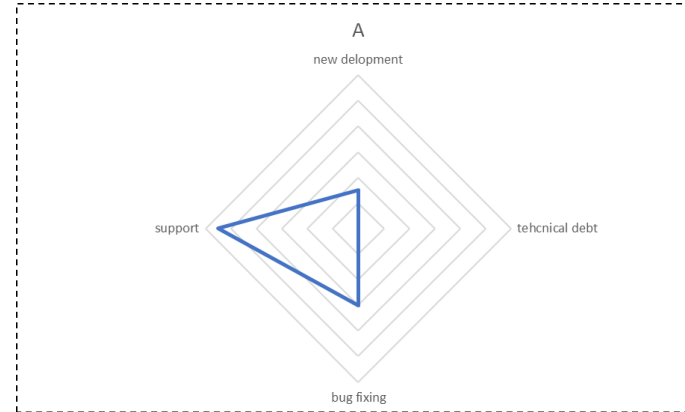
Data driven culture

- Through data you keep close touch with reality

- Always consider
    - External data
    - Internal data
    - Difference between quantitative and qualitative
    - People

Thank you!

Pavel Minarik
VP Technology, Progress Software
Work email: pavel.minarik@progress.com
Private email: pavel@minarikovi.com
Linked-in: www.linkedin.com/in/pavelminarik

Special thanks to Prashanth Nanjundappa my colleague and VP, Product for Chef product line in Progress for his thorough review and feedback.

All cartoon images were generate using AI. That was the most time consuming part of preparing the session. ~15 usable pictures took 100+ attempts. This last one was generated using prompt "Cartoon style image. Thank you." and I did not have power to click "Generate" again.