



Driving Value out of Technology
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STKI.INFO



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Cloud Computing

What is the impact of cloud on enterprise IT?

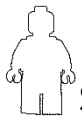
Two meanings of cloud



Public clouds and products



Cloud Led Organization



What is “Cloud” for you?

Cloud computing issues:

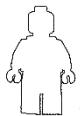
- “is there an ROI for moving this activity to cloud?”
- “what percentage of my application are in the cloud”?
- “what are the skills & tools I need for the apps in the cloud?”

The general “cloud migration path”:

- Lift and Shift
- Use PaaS services –DBMS, Identity
- Moving VM to container
- Scale up features
- Improve HA –Cluster – multi-region features
- Move traditional OS to Open Source OS

But the right way to look at cloud is “Cloud Led Organization” meaning IT is based on what is done in the cloud in all aspects of activity

The question “should I move this application to cloud” is less dramatic



Cloud Led Organization



Partial list of aspects

The question “should I move this application to cloud” is less dramatic

Cloud Led Organization is viable for all organizations including on prem \ no internet orgs.



Example of “Cloud” thinking suitable for all (on premise) organizations:

DORA (DevOps Research & Assessment) Metrics

- **Deployment Frequency** “12 deployments per week”
- **Change Lead Time** – the time from when a developer starts writing code for a feature (or a change) to when that change is released to end user
- **Change Failure Rate** – the ratio of the number of deployments that caused a failure to the total number of deployments
- **Mean Time To Recovery (MTTR)**



Google Cloud +  DORA
State of DevOps
2021

Technology-organizational model for Cloud

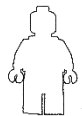
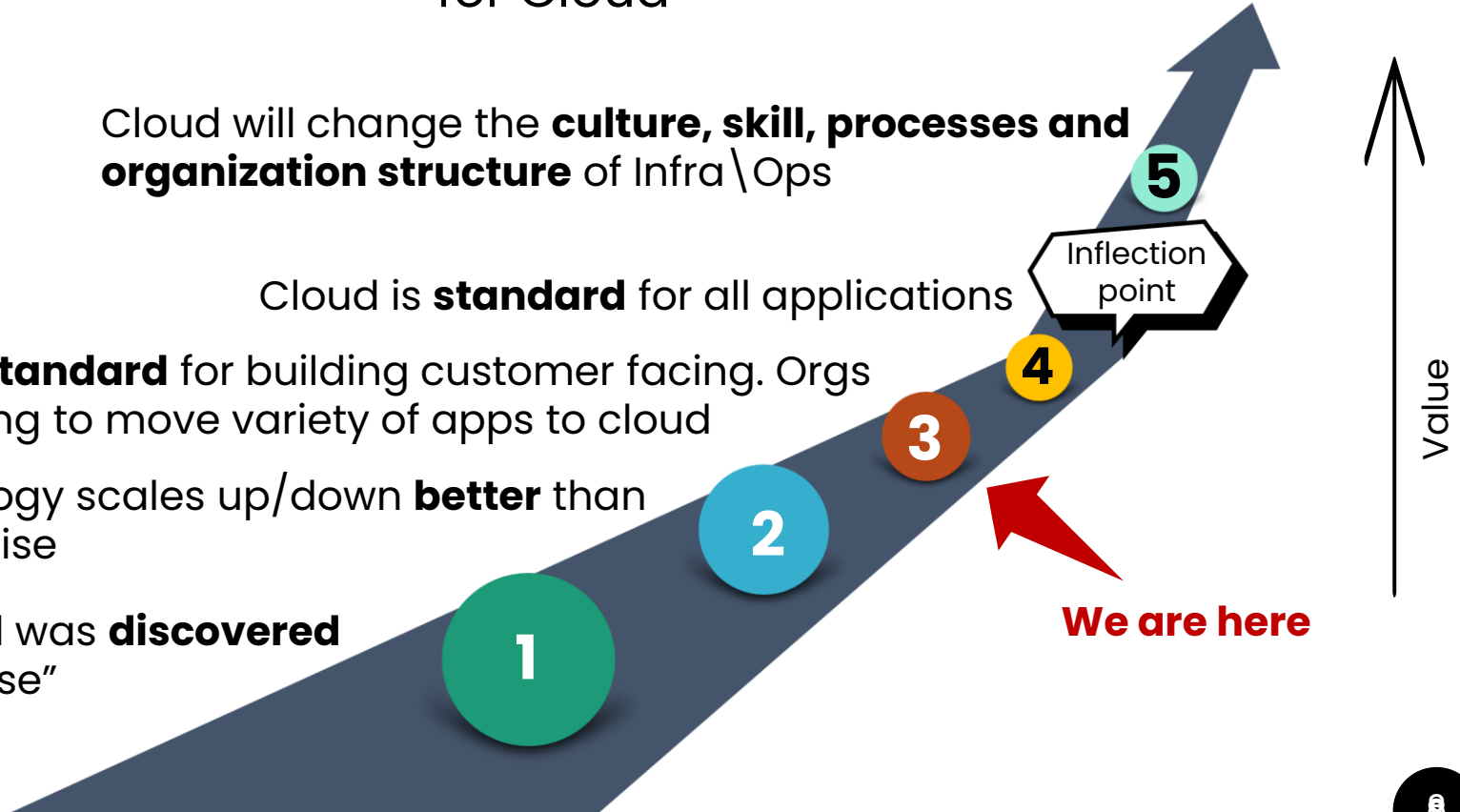
Cloud will change the **culture, skill, processes and organization structure** of Infra\Ops

Cloud is **standard** for all applications

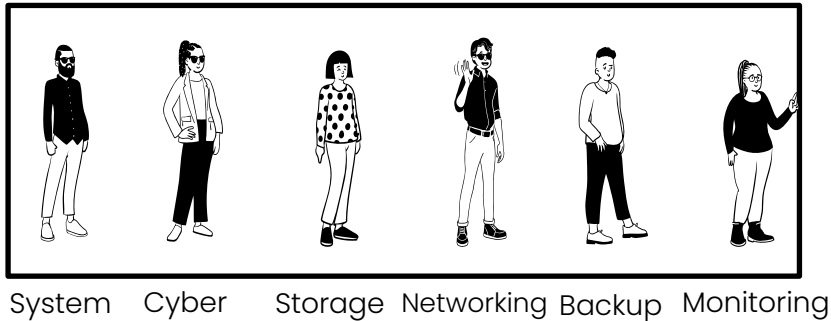
Cloud is the **standard** for building customer facing. Orgs are considering to move variety of apps to cloud

Technology scales up/down **better** than on premise

When cloud was **discovered** "not for IT use"

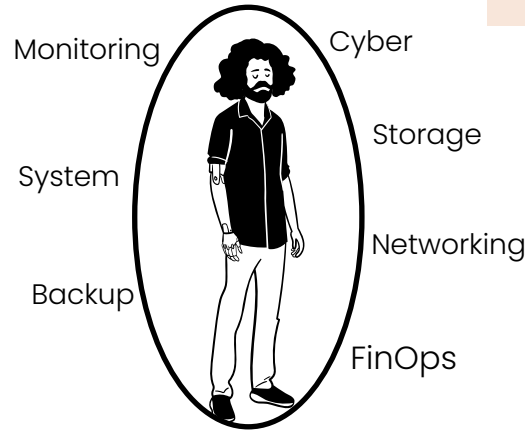


When we reach inflection point – From separate departments to unified self service delivery



"מחכים לתשתיות"

"מחכים לתשתיות"
אבל פחות



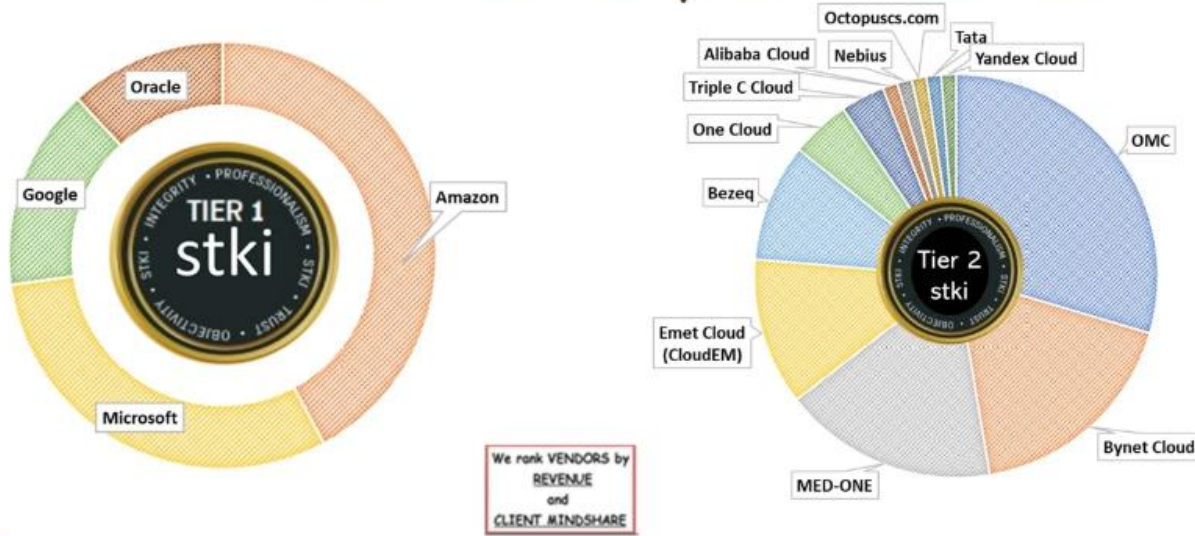
כבר לא "מחכים לתשתיות"



Cloud market and the local public clouds



ENTERPRISE PUBLIC CLOUD (IaaS; PaaS, Compute as a Service)



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What is the role of local clouds?

Sovereignty (ריבונות) of data, contract, terms, employees, regulation

Better price than the global clouds (might)



Flexibility in technology

Hebrew support up to 3rd level – engineering

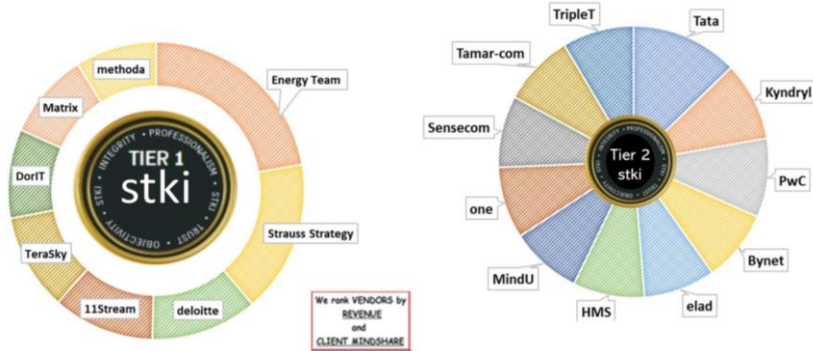
Inertia (of existing customers)

Low latency

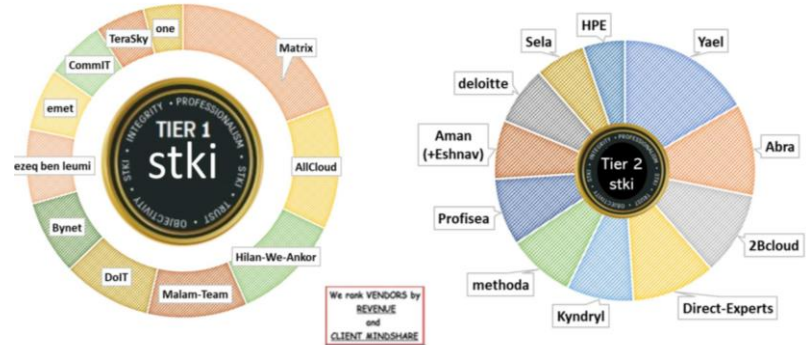
Cloud dissolves the “consult” vs. “implement” separation



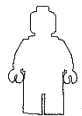
IT Infrastructure & Cloud Consulting



Enterprise CLOUD: Consolidation/ Virtualization/ Containers /Monitoring/ BSM/ Storage/ Hardware/ Networking Projects



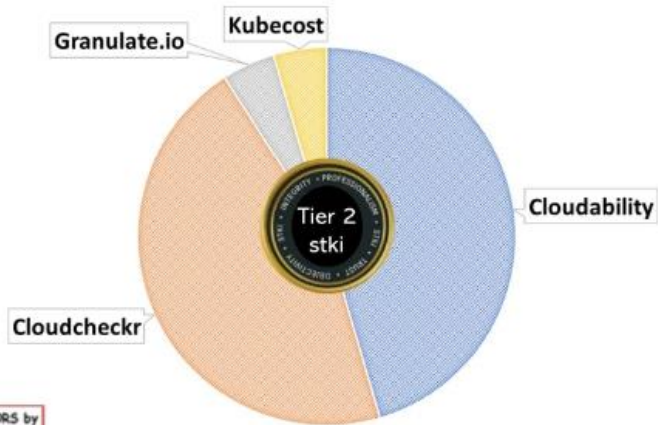
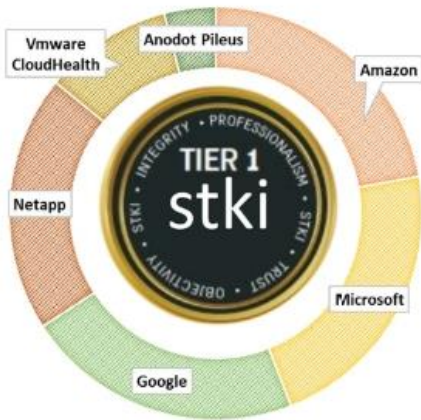
Many times **leading implementation companies have the required consulting knowledge**, or leading consulting companies have leading practices for implementation



FinOps



FinOps Tools



We rank VENDORS by
REVENUE
and
CLIENT MINDSHARE



FinOps

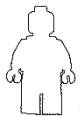
FinOps bridge business, IT and Finance teams by enabling evidence-based decisions in near-real time to help optimize cloud use and increase business value

Developers

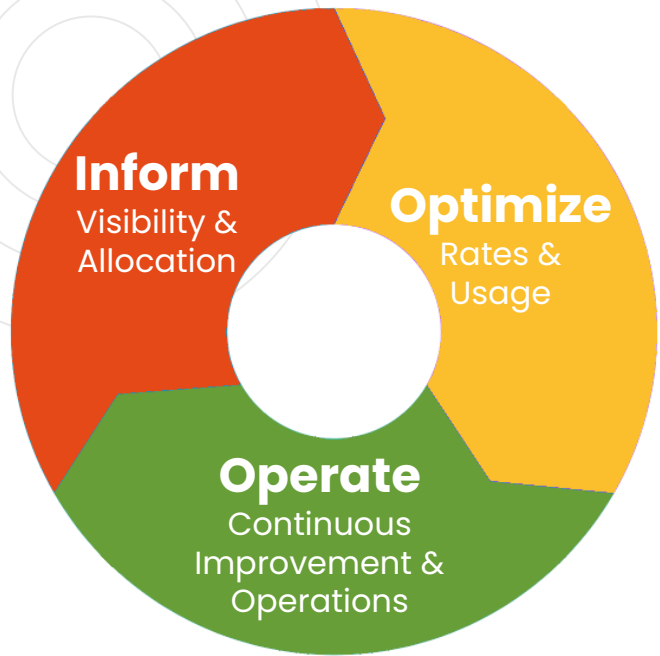
Infra / Ops

Procurement

Finance



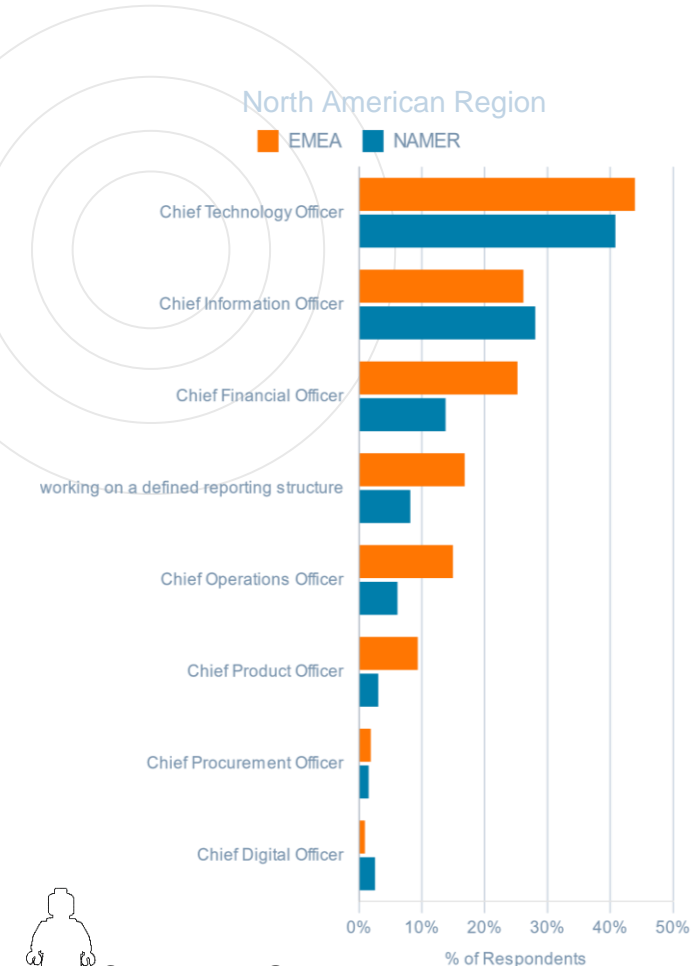
FinOps phases and domains



- Understand Cloud usage and costs
- Tagging policy and implementation
- Performance tracking and benchmarking
- Cloud rate optimization
- Cloud usage optimization
- Real time decision making
- Organizational alignment
- Tagging policy and implementation



FinOps Reporting Structure

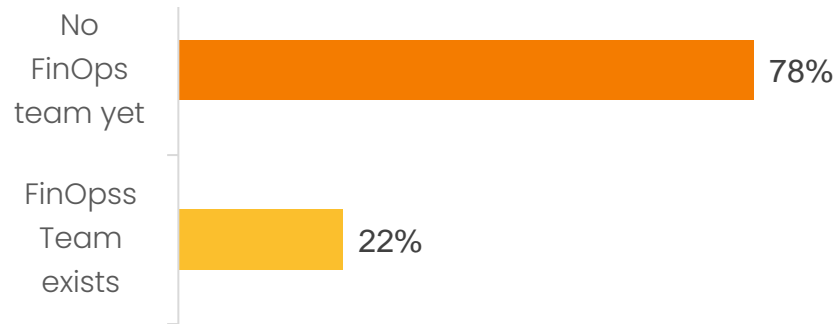


Finops must work closely with business, developers, infrastructure, operations, finance and procurement

Finops has some technical aspects of automation and real-time decision making

STKI Survey:

Is there a FinOps team in your organization?



I RECOMMEND

Adopt “Cloud Led Organization” in all possible aspects of IT

Set new relevant metrics like “DORA”

Reskill current team while outsource the “old IT”

Build new organization model for Infa/Ops where Devops (and platform engineers) support the projects (**products!!**) a to z

Establish FinOps team with FinOps practitioners. Set up tagging policy now

WHY

This will drive value to the organization, enable smooth move to public cloud when its ready (“cloud ready”) while eliminating the “pro-cloud” vs. “no-cloud” wars whiten the organization

Many of the old metrics emphasis “efficiency” and not “value to the organization”

This is opposite of what is done today – the IT stuff is doing the “old-on prem” work and the “cloud based” activities are outsourced

This will drive faster delivery, keep current team up to date and increase team loyalty

Without tagging it is impossible to understand cloud cost without proper tags and in retrospect will never work



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Development, Infrastructure services & platform engineering

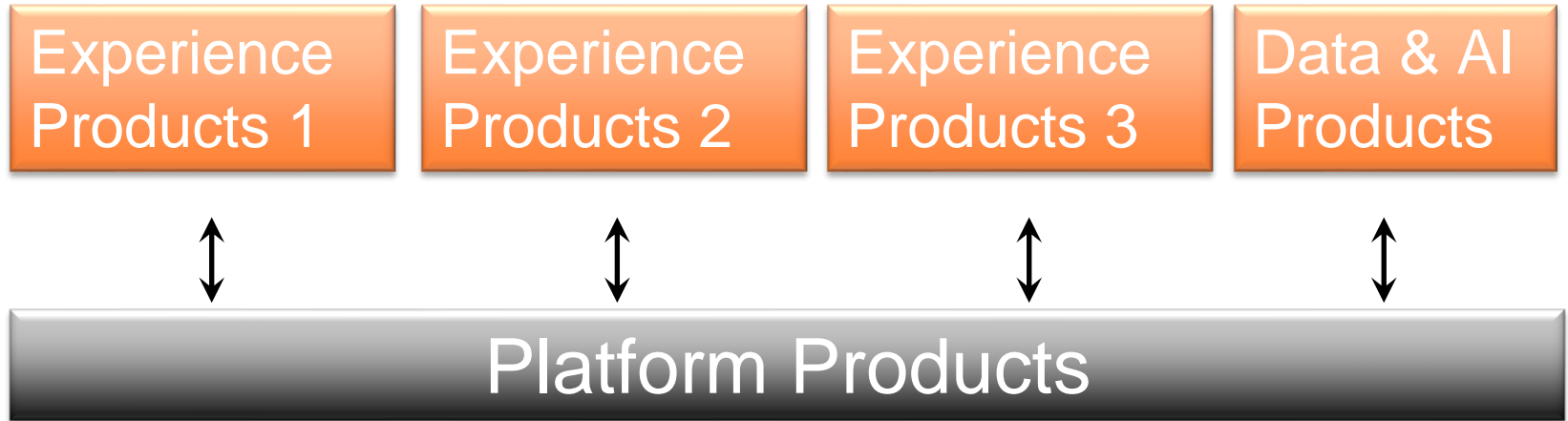
Enable "You Build It You Run It"

The Cloud Led Organization is developing, operating, securing, building & using infrastructure and organized differently from what we do today



Partial list of aspects

Platform Products:



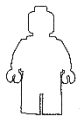
The **Experience Teams** can use platform products **without having to know** how they are implemented so they could **focus** their energy on the **customer & business problems** while keeping with company **standards**

The platform products details are **invisible** to the experience developers

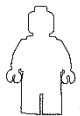
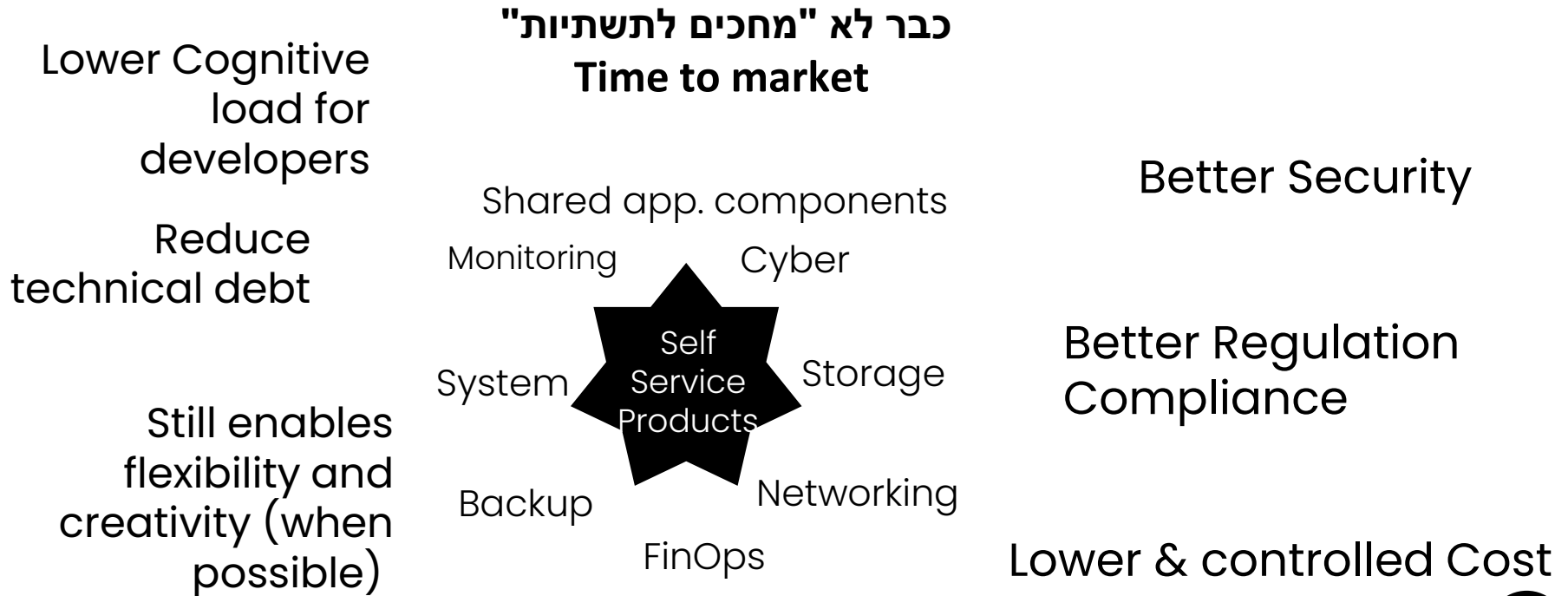
The Solution: Self Service for developers



- Which is the core of “Platform Engineering”
- Self Service is achieved by Automation
- Automation & self service for the developers and not only for infra/ops/security

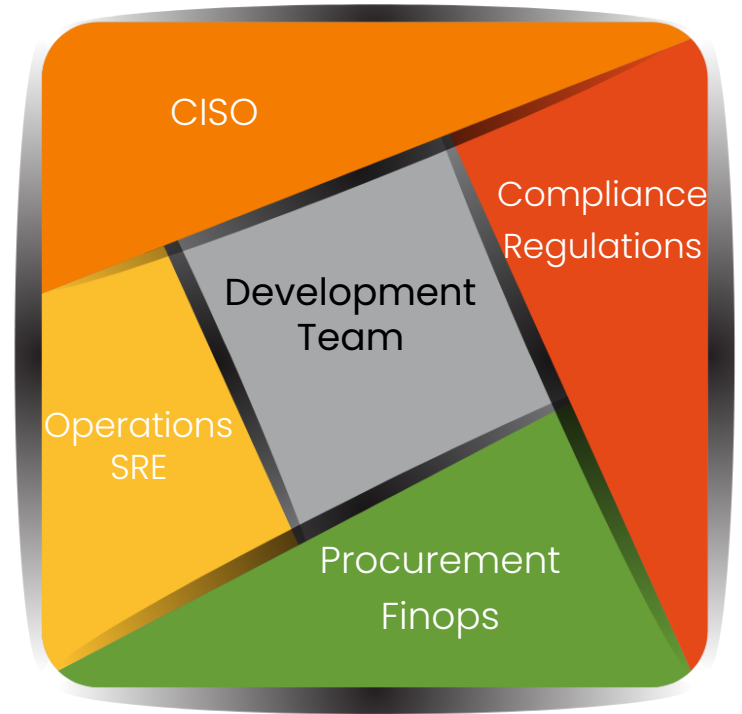


Platform Engineering Value

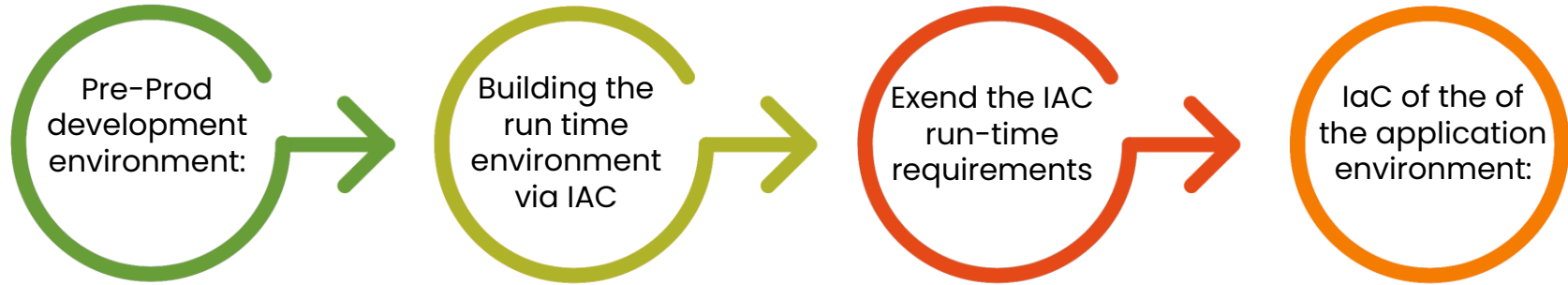


Platform Engineering Customers

Although the main customer of the Platform Engineering work are the developers the platform some times called IDP (Internal Development Portal) built should implement the needs of the CISO, Compliance, FinOps and SRE teams



Platform Team Adoption (suggestion):

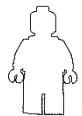


- Version Control System
- Automation solution for build, test, and deploy their software
- Artifacts repository solution
- Code scanning tools (Dev-Sec-Ops)
- Testing automation tools

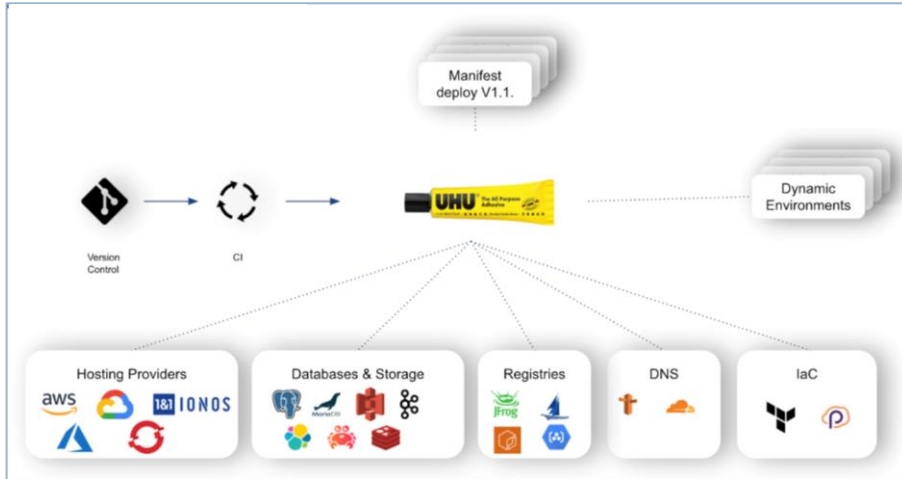
- Automate compute-storage-network-DBMS needs based application requirements all configured in code\parameters

- Secret management solution
- Identity management
- More advanced communication (FW, Load Balancing, AB-testing)
- Advanced security
- Testing automation tools

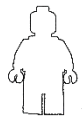
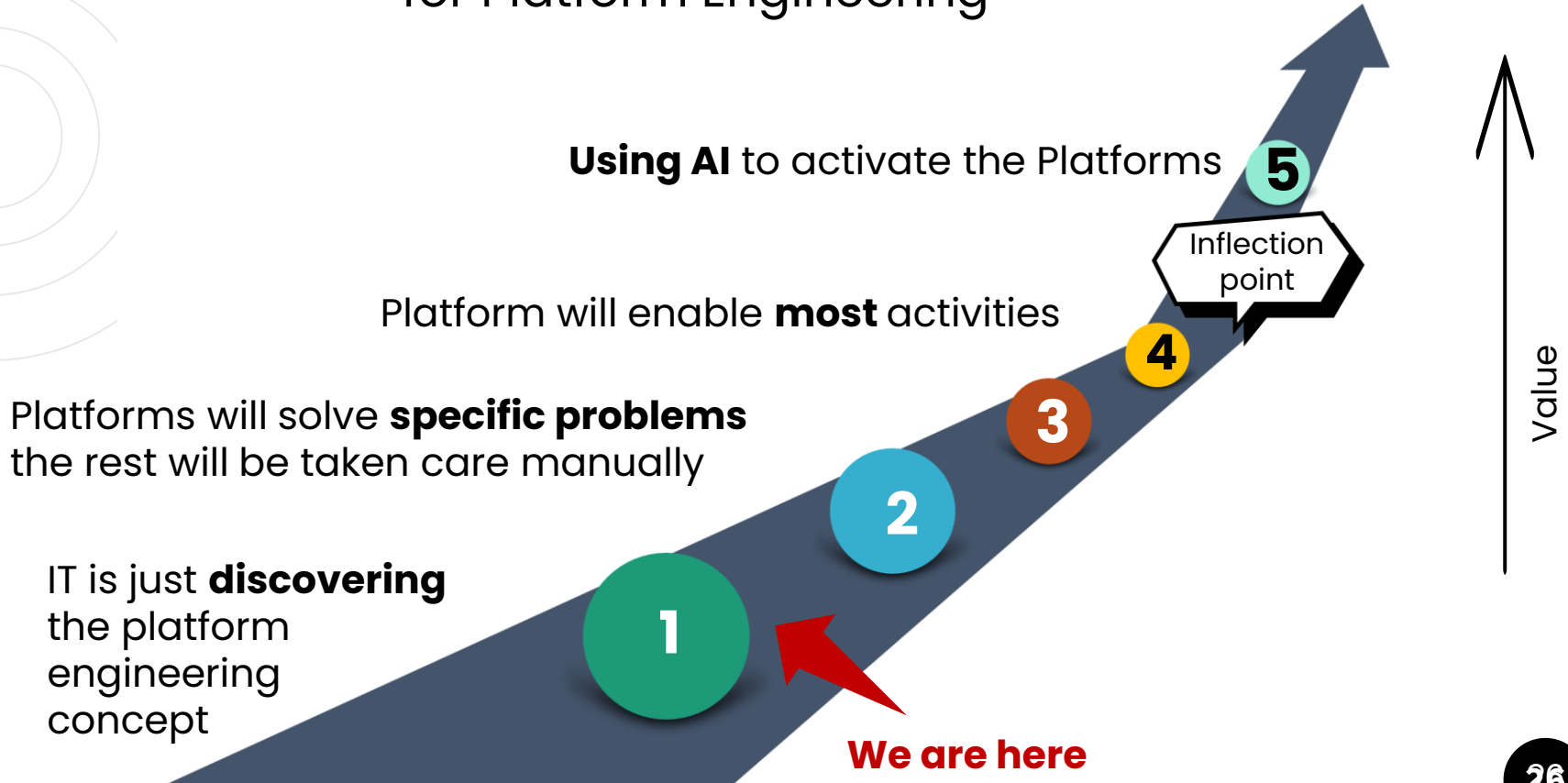
- Observability – monitoring (logs, metrics)
- Finops and cloud operations (tagging automation, integration with FinOps tools)
- Cyber security advanced templates and tools
- Regulation and compliance related templates and tools



Tools for building Platform Products (commercial and OS):



Technology-organizational model for Platform Engineering



Business processes are the core of the organization

How does IT implement the business processes:

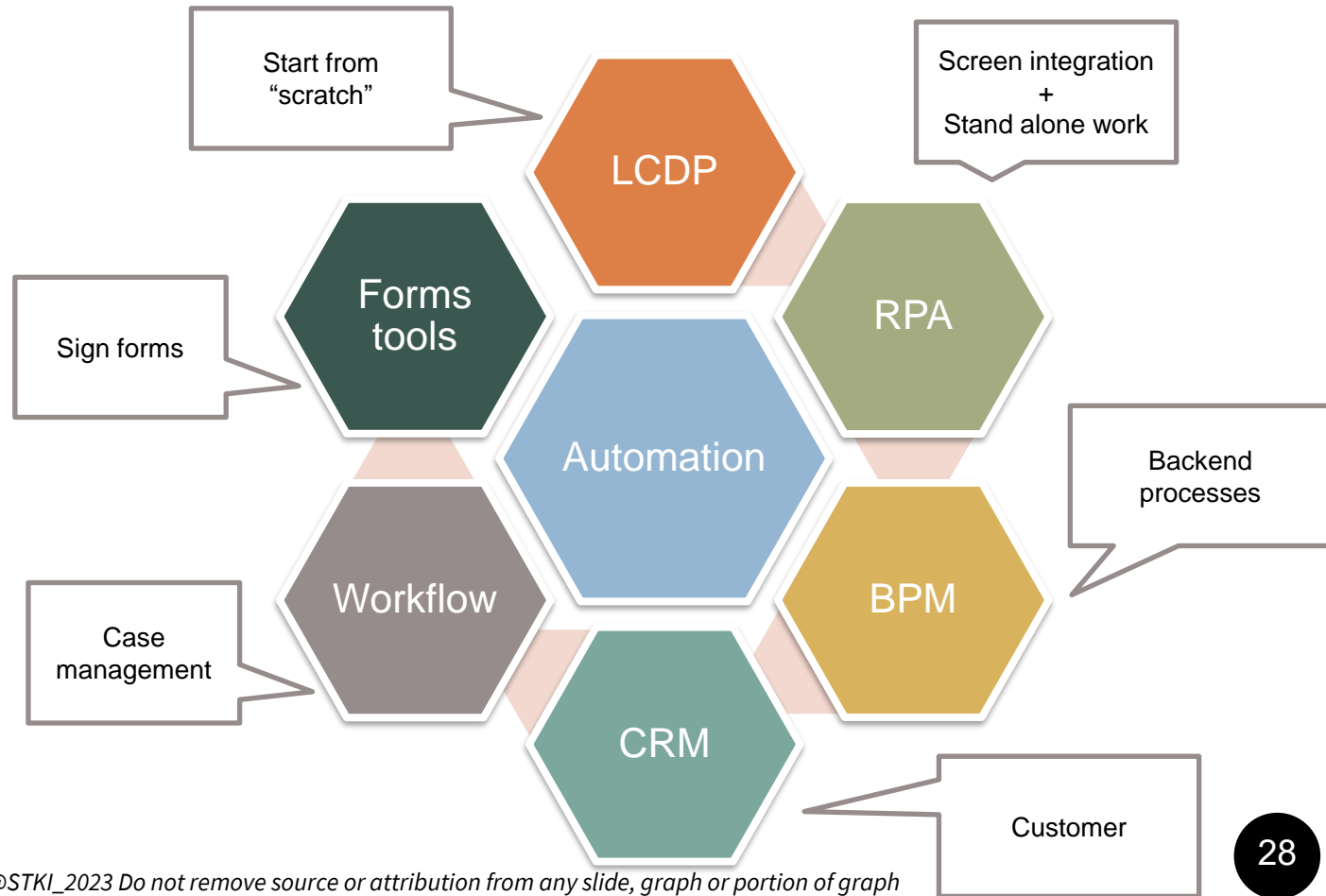
- Packages (including SaaS)
- Develop (code)
- Use automation tools



Experience Team
(the Developers)

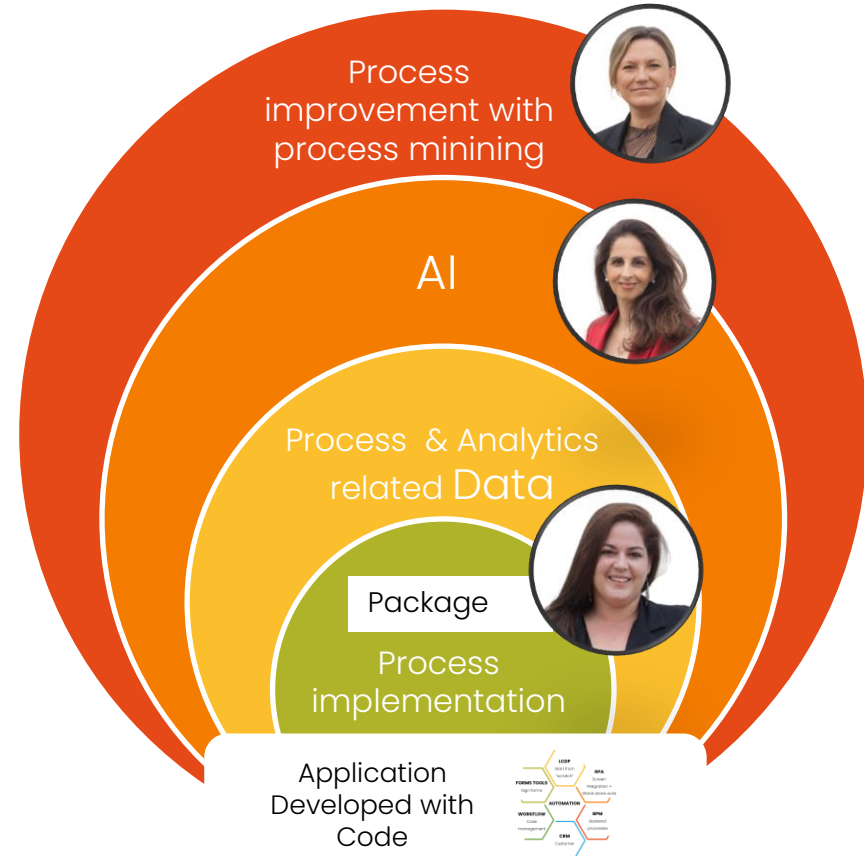
The “world” of Automation

Automation is growing segment with overlapping tools arriving from many origins



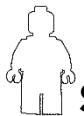
Connecting the dots – from process implementation to process improvement

No matter how IT is implementing business process (code, package-SaaS, automation) it generates (and consumes) data, uses AI and must be part of business process improvement



Quiz: which tool would you use for employee onboarding app?

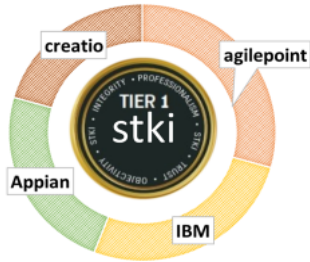
- HR tool
 - IDM (Identity Management) tool?
 - ITSM (Help Desk)
 - Low Code LCDP
 - RPA
 - BPM
 - "On boarding tool"
-
- The answer (for this particular organization): Workato (IPaaS)!!



Categories are getting closer in the automation landscape



BPM Platforms



We rank VENDORS by REVENUE and CLIENT MINDSHARE

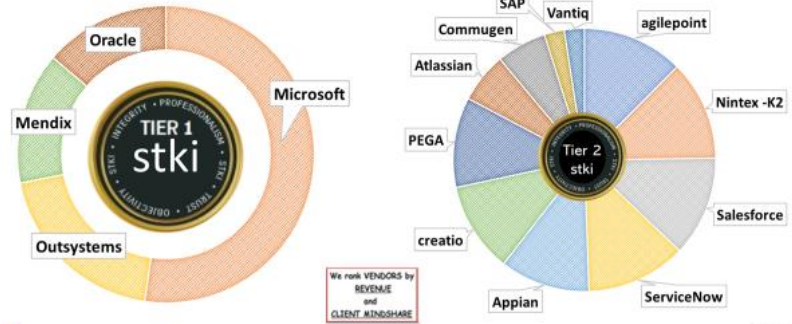


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Low Code tools

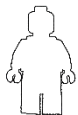


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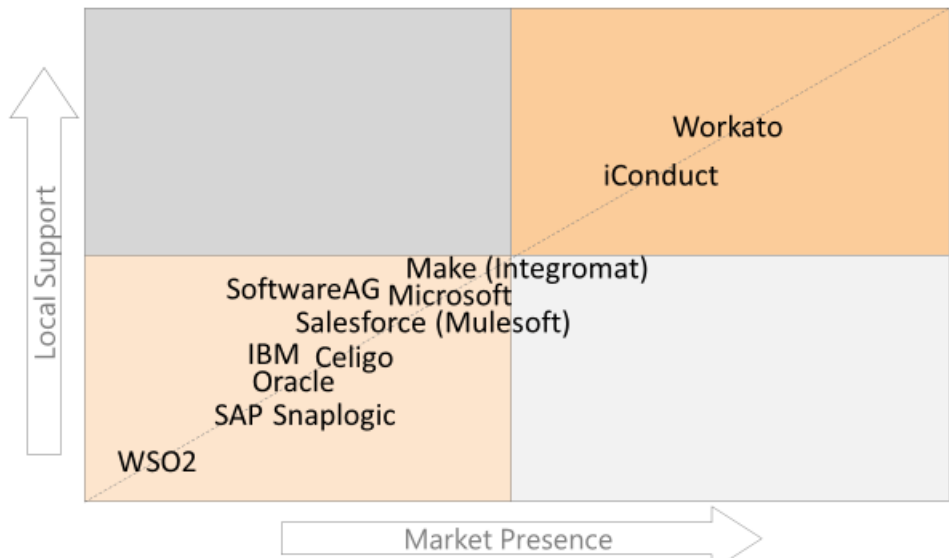
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IPaaS market

IPaaS is the fastest growing segment in the Integration tools landscape

Brands in IPaaS - Israeli market enterprise presence 2023

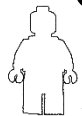


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Traditional Development: AI – code generation

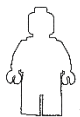
- OpenAI Codex is Open source AI Algorithm for code generation
- Microsoft Github trained the model on all open source code in Github
- The model generates code according to code and remarks
- The code is generated specifically but is based on code in Github
- Name of produce is Copilot
- Can work with other code repositories





AI code generation

- Microsoft: Copilot increases productivity between 15% to 50% !!
- Microsoft does not claim code is better (better quality)
- More training – better results. The quality of result is based on the volume of open source code in Github. Including C#, Java, Python but also Teraforms, Selenium

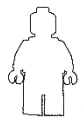




AI code generation issues



- Working in the internet environment for data-code leakage
- The code includes opensource code from Github and might have open issues (licenses)
- Is it your IP?



Technology-organizational model

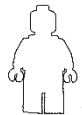
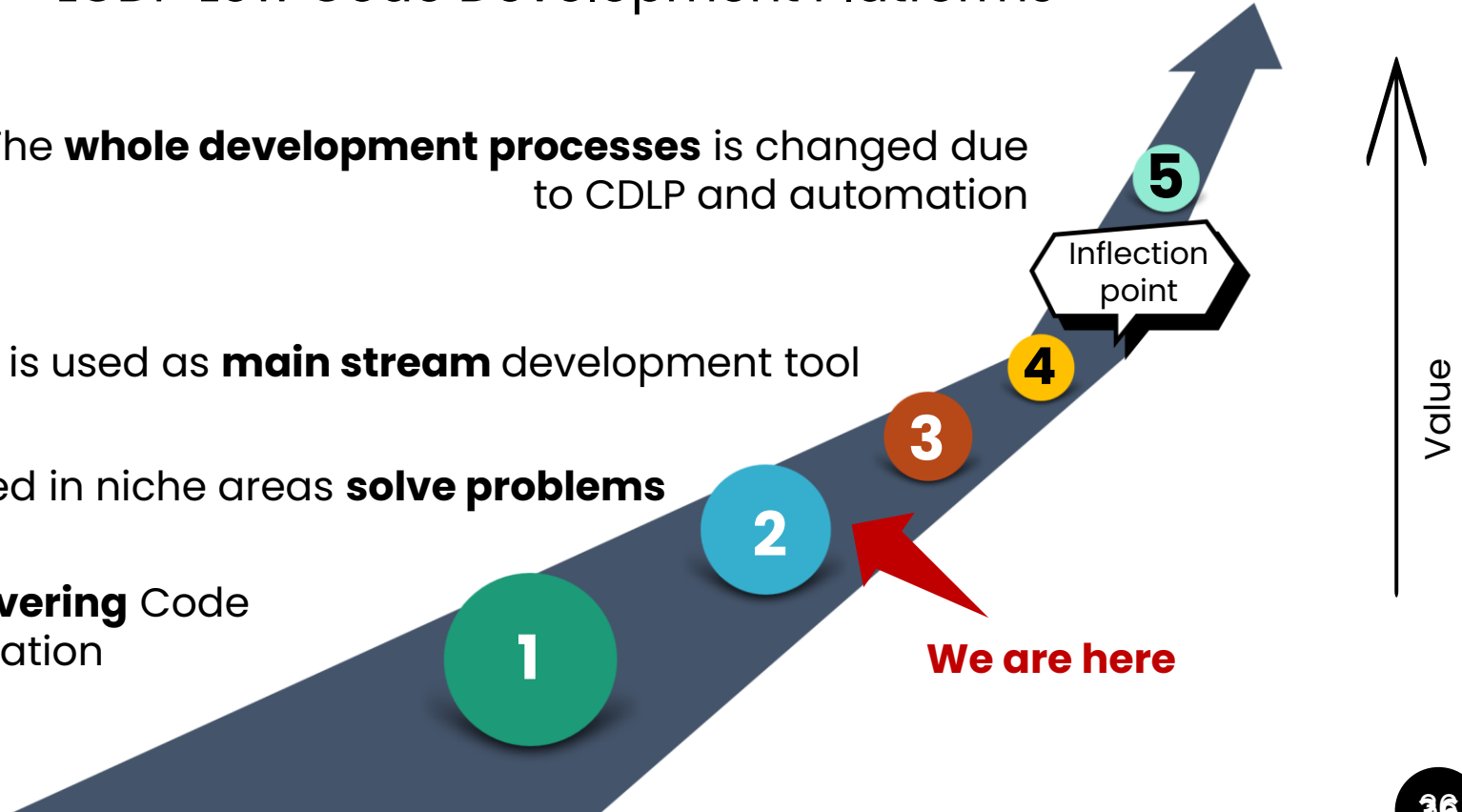
LCDP Low Code Development Platforms

The **whole development processes** is changed due to CDLP and automation

LCDP is used as **main stream** development tool

LCDP is used in niche areas **solve problems**

discovering Code generation



Technology-organizational model

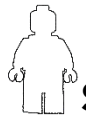
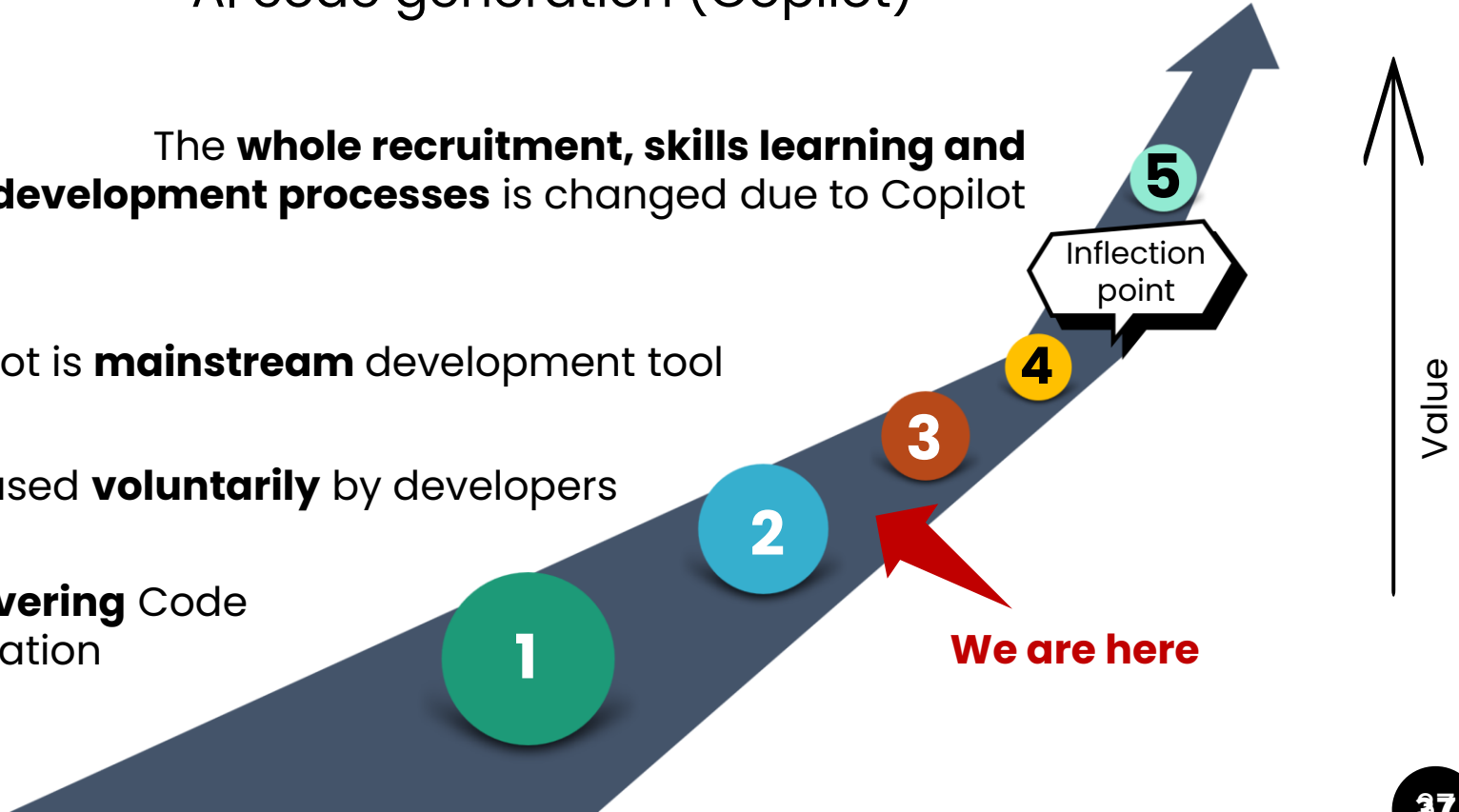
AI code generation (Copilot)

The **whole recruitment, skills learning and development processes** is changed due to Copilot

Copilot is **mainstream** development tool

Copilot is used **voluntarily** by developers

discovering Code generation



I RECOMMEND

Establish Automation Center of Excellence for coordinating all automation related issues

Organization might have several automation tools even in the same family (two LCDP)

Generative AI in development (and testing automation) will be ubiquitous – start your implementation today

WHY

The tools, skill, processes of the automation domains are similar and the parts of the picture are moving

Tools are different in functionality, licensing model, ease of use, etc. The automation market is evolving

AI is winning everywhere

**See You
in Person in
our November
Summit**

