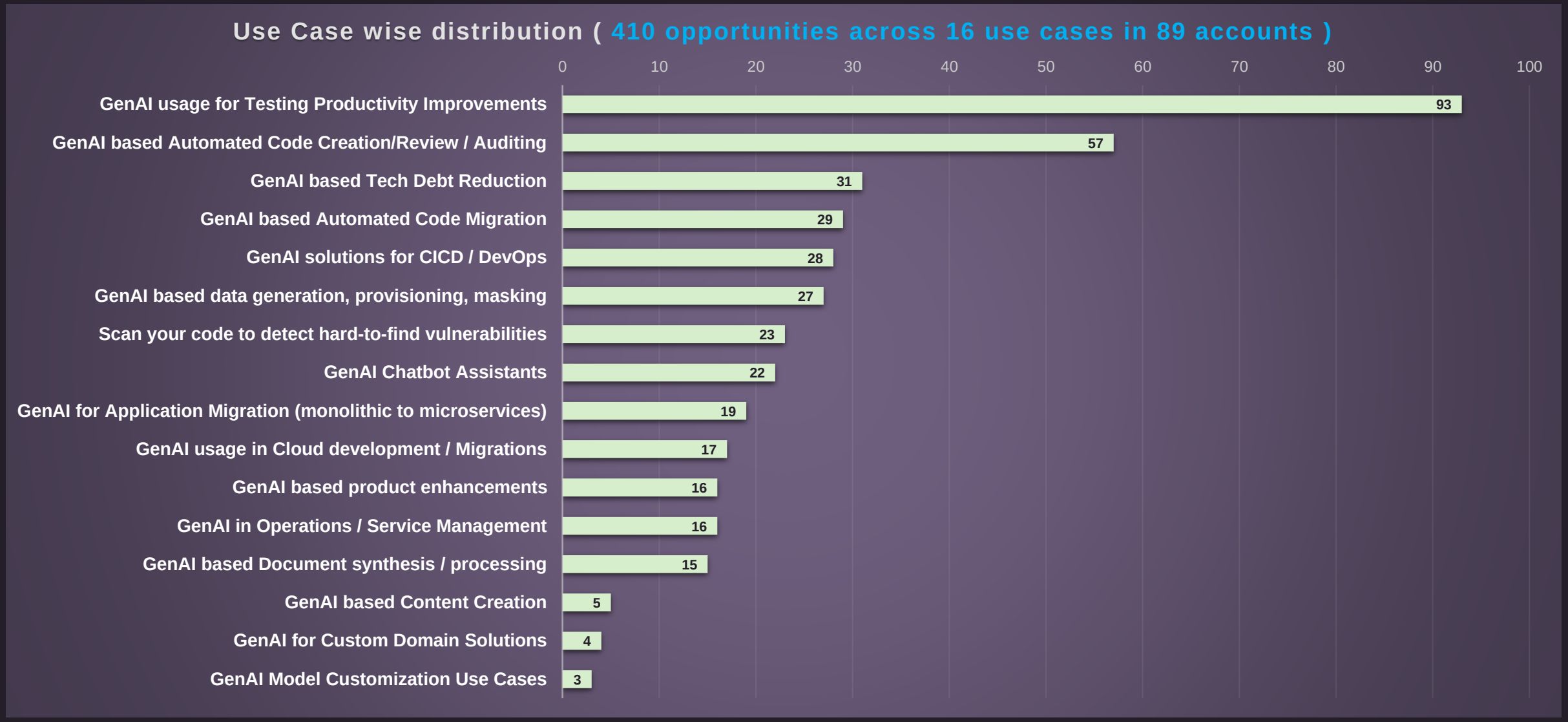
Outcome of Use cases across key GenAI based Engineering improvements levers



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Accelerated Engineering Use case classifications

Code Assist Tools

- Automated Code Creation/Review / Auditing
- Testing Productivity Improvements
- Secure Code Scans
- Data generation, provisioning, masking

Transforming Engineering beyond

- Automated Code Migration
- GenAI based Tech Debt Reduction
- Application Migration (monolithic to microservices)
- Operations / Service Management
- Cloud development / Migrations
- GenAI based CICD / DevOps
- Chatbot Assistants
- Document synthesis / processing / content creation
- Product Enhancements

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Initial Productivity Improvement insights

Code Generation
Unit Test Automation

	Activity	Overall
Python	30-40%	5-7%
ReactJs	25-30%	5-7%
Go	20-25%	3-5%

Success

\ Bio-Rad (CW) – 80% code acceptance for file transfer

\ Monogram (CW) – Code Coverage for Unit Testing increased to 70%

\ Monogram (CW) –Security scan run for Python Lambda code, found 4 security issues, that were unnoticed earlier

Limitations

- **IDE used** – Pycharm, **Language** - Python, boto3
- **Objective** –
  - Perform authentication of the user through **Cognito**. Once user credentials are passed, expectation was to get access token using **boto3** client. **No suggestions were provided**
  - Developer imported Cognito also; Prompts tried to connect to Cognito using boto3
  - Observation - **No suggestion provided by Amazon Codewhisperer. prompts were tried in multiple ways.**

Issue	No support on	Impacted account
IDE not supported	Eclipse	
	Visual Studio Enterprise	Navman
Languages not supported	.NET Core	
	C	Accelerite
	GoLang	Accelerite
	VTP (Virtual Tape library)	Blastmotion
	Terraform	Blastmotion

Dev Feedback

/ Saves around 20 % time during the repeated logics like printing the logs.
/ Generates code with proper comment, which makes it easier for developers to understand.
/ Increased my productivity by at least 30% by automatically generating the same logics again.
/ Very addictive
/ Easy to adapt to - can't do without it now
/ 0 syntax errors since started using CW