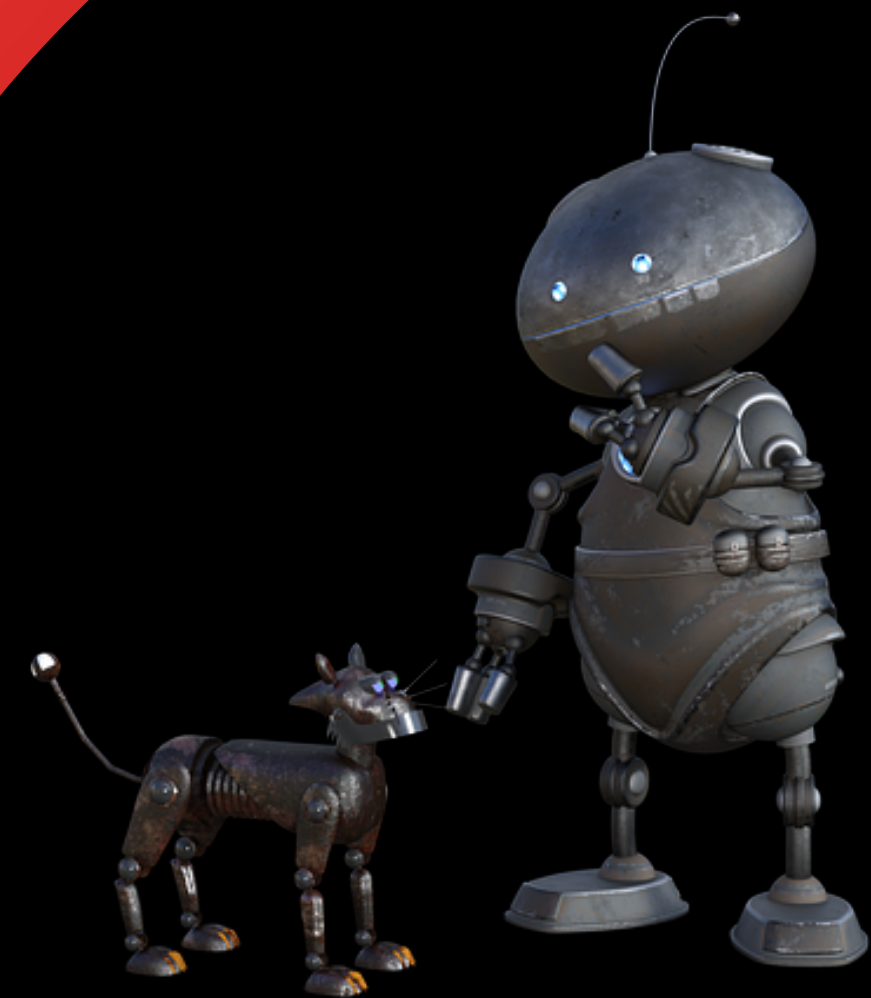


“Citizen Developer” Best Practice & Strategies

Simon Hunt
BEng(Hons) MSc PGCE MIET MCGI VR



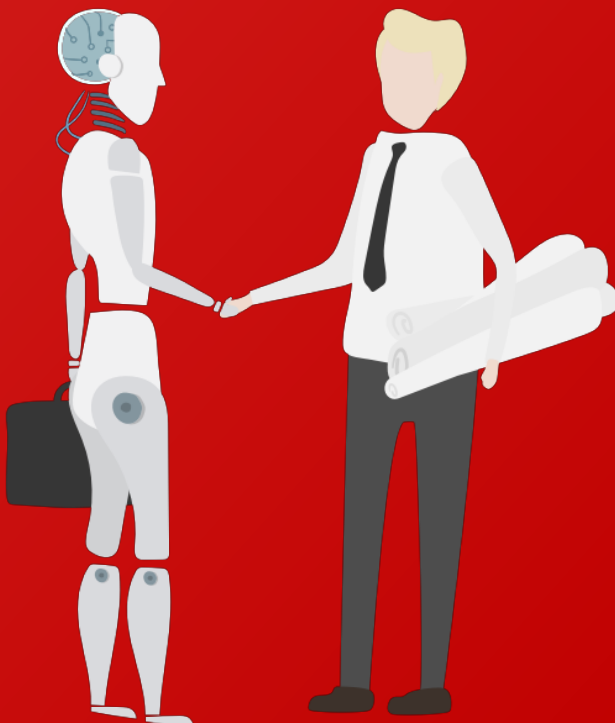
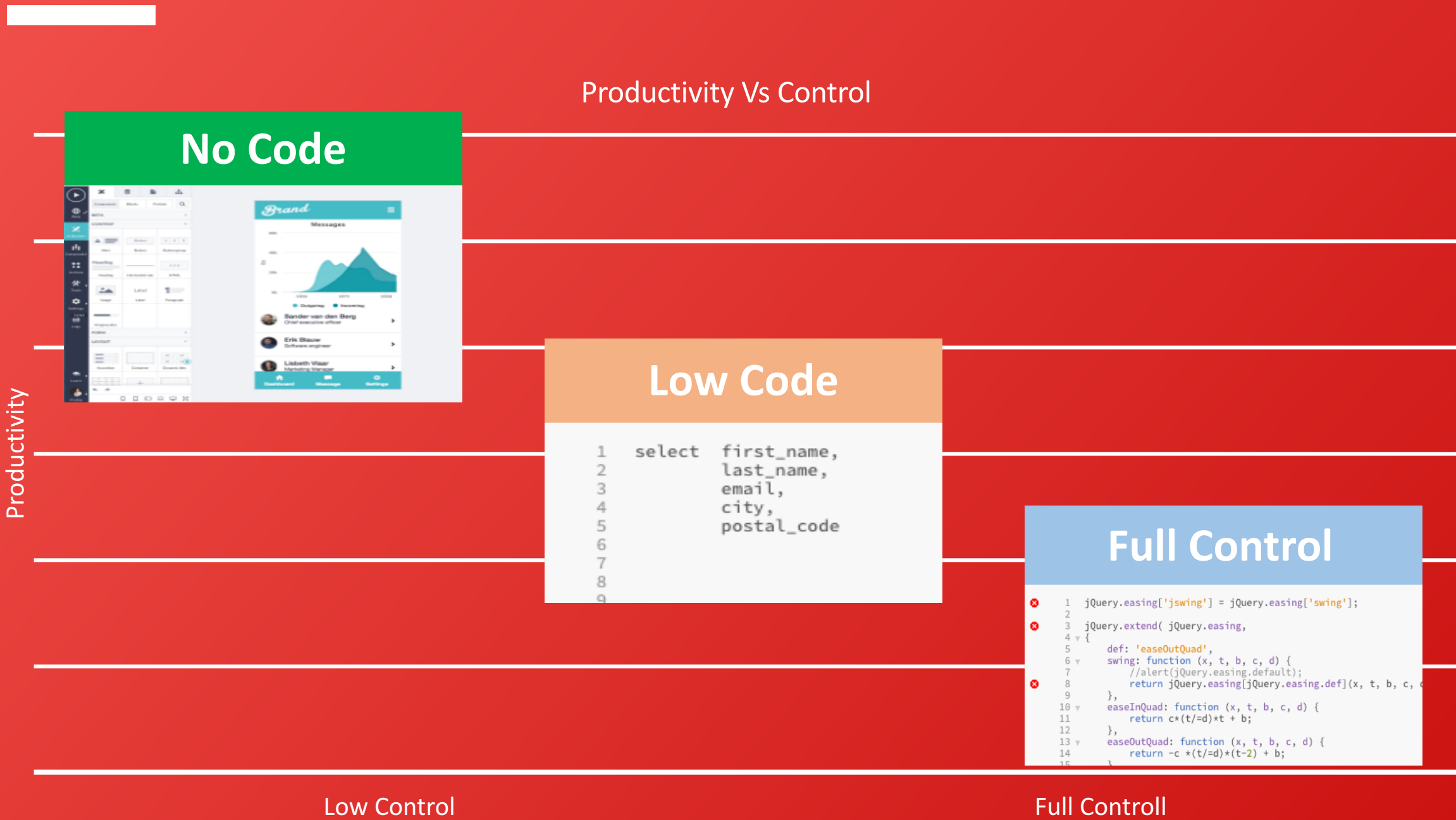
Definitions

Citizen Developer: “someone that builds business applications using sanctioned environments.”
(Gartner 2017)

Low Code: “Low code platforms enable rapid delivery of business applications with a minimum of hand-coding and less upfront investment in setup, training, and deployment.” (Forrester wave 2016)

No Code: “makes it possible to build applications without knowledge of coding, no-code platforms leverage technology to empower the ability of humans to innovate, rather than impede it.”
(Bettys Blocks 2019)

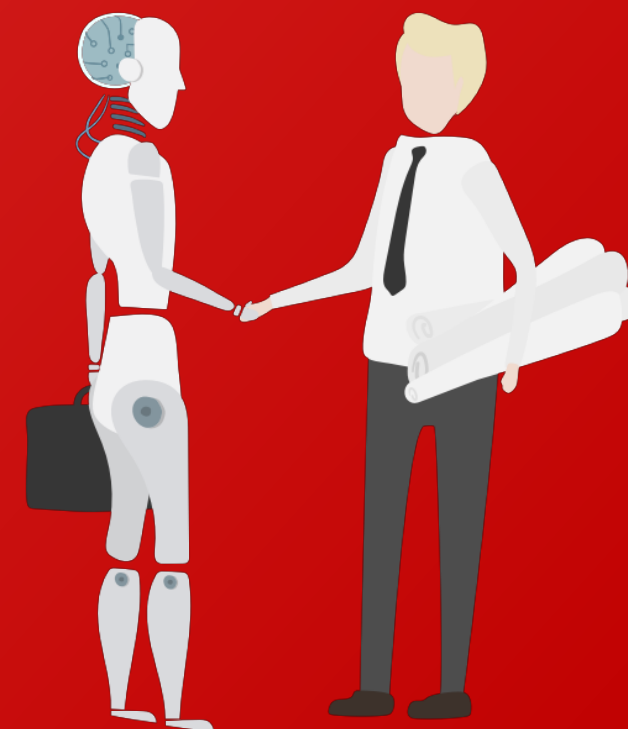
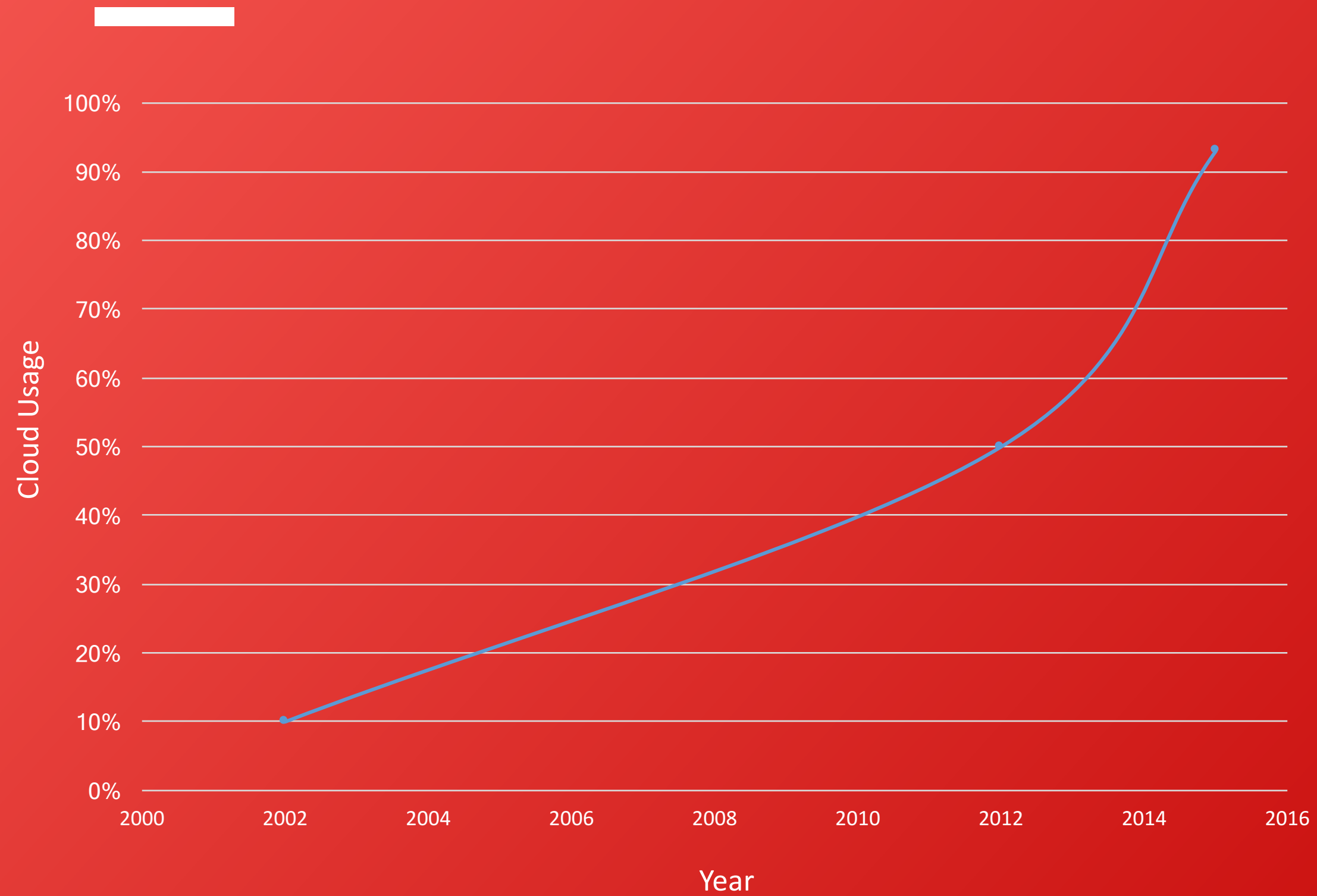
Definitions



Why now?



Cloud usage for Shadow IT

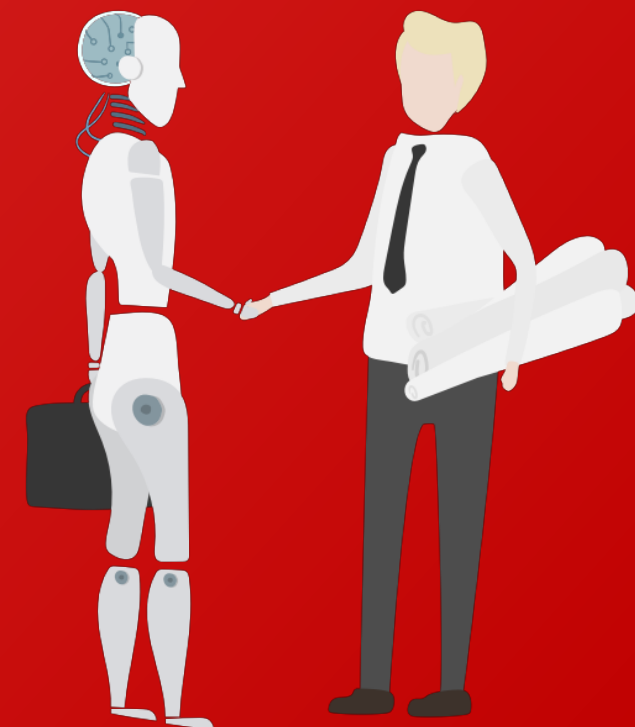


Strategies

Journal of Management Information Systems 1987

- Laissez-faire
- Monopolist
- Acceleration
- Marketing
- Operations-based

(Alavi et al. 1987)

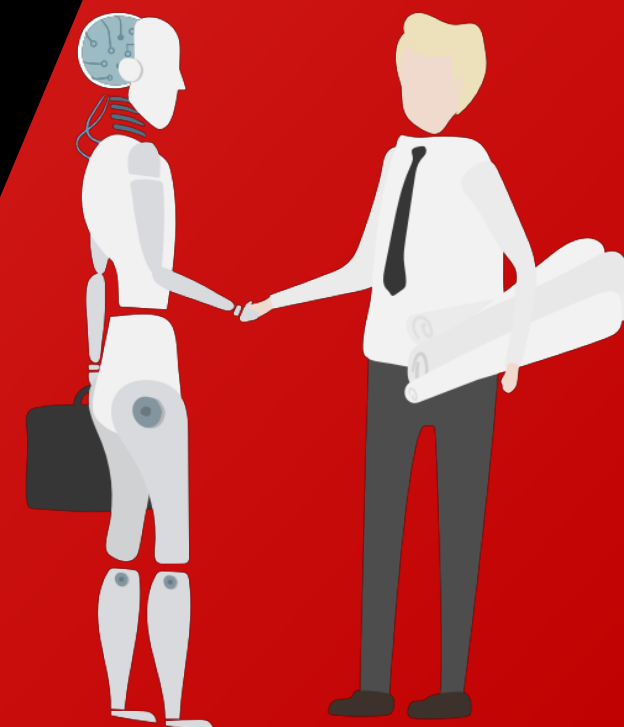
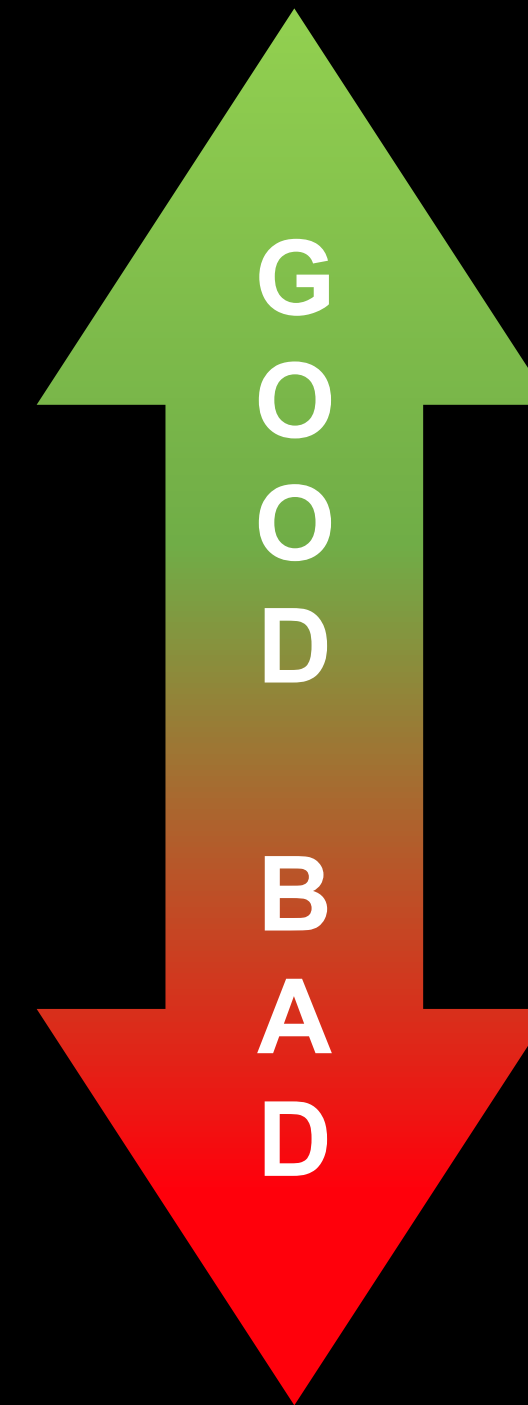


Citizen Developers



Motivation

- **Solve a Problem**
 - Improve Efficiency
 - Save Money
- **Competitive Advantage**
- **Personal Development / Personal Interest**
- **Financial Reward**
- **Nefarious**



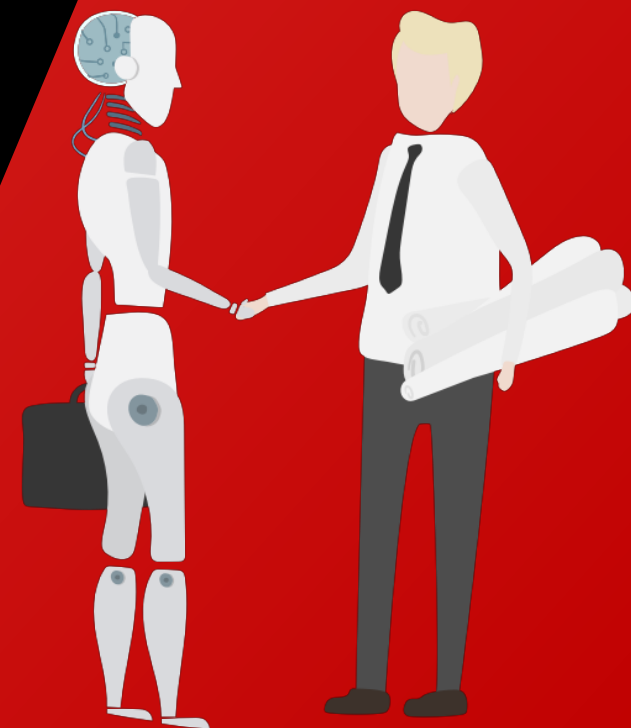
Case Study

- Government Department
- 2500 Legacy Shadow IT Systems
- Culture
- Out-Source Core IT Systems
- Accreditors



Vision

- Individual
 - Encourage
 - Empower
 - Reward
 - Benefit
- Organisation
 - Maintainable
 - Secure and Compliant
 - Scale
 - Invest

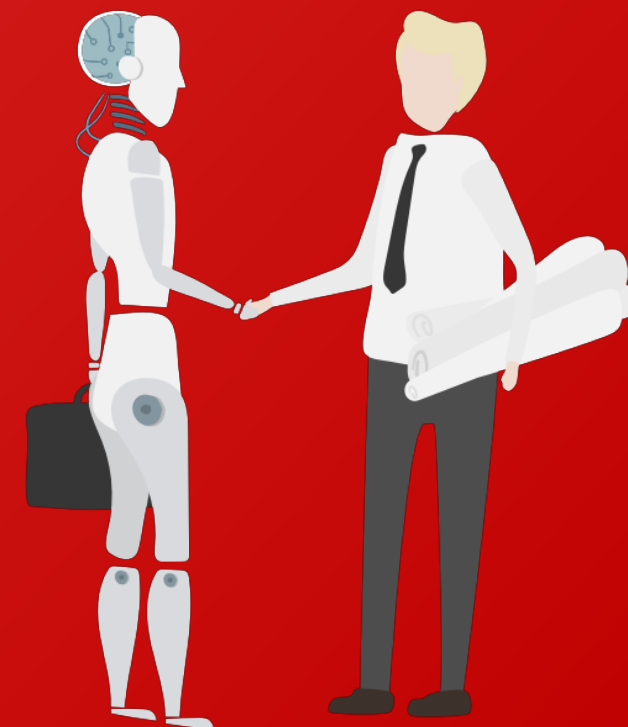
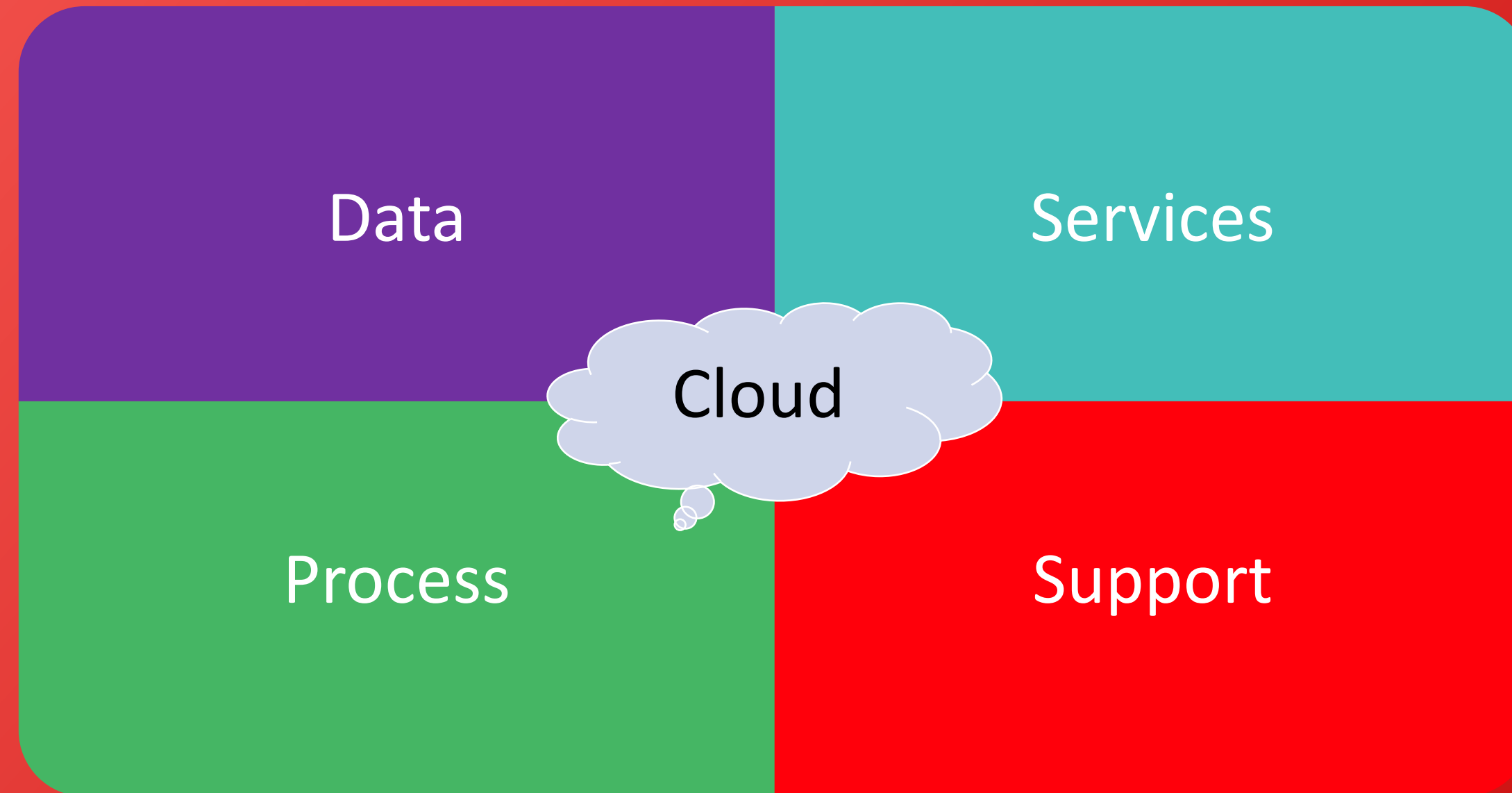


Principles

- Core IT Lead
- Secure by Default
- Cloud First
- Accessible
- Maximum Reuse
- API First
- Agile
- Make use of what you already have!!!!

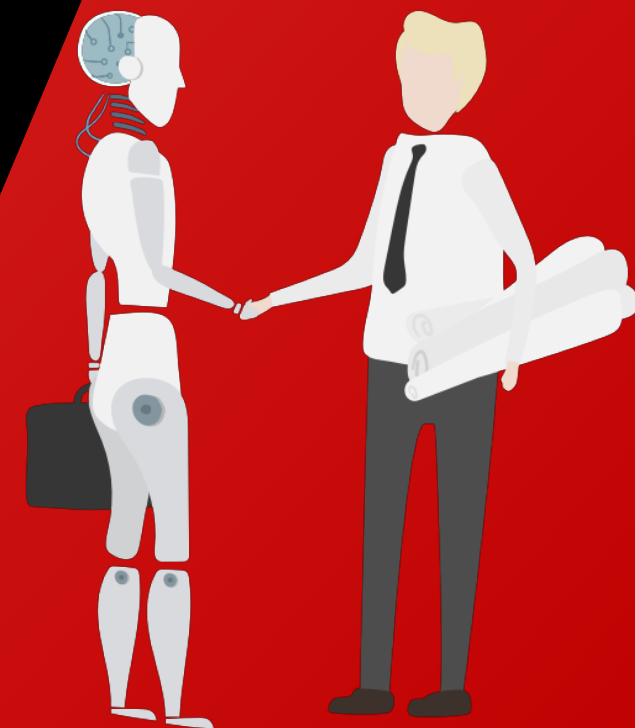


Strategic Corner Stones



Corporate Data Access

- OAuth2 / Rest
- Data Warehouse
- API Gateway
- Robot Automation



Developer Services

- Source Control
- Code Scanners
- User Research
- Project Management
- Test Automation
- Collaboration
- Service Desk



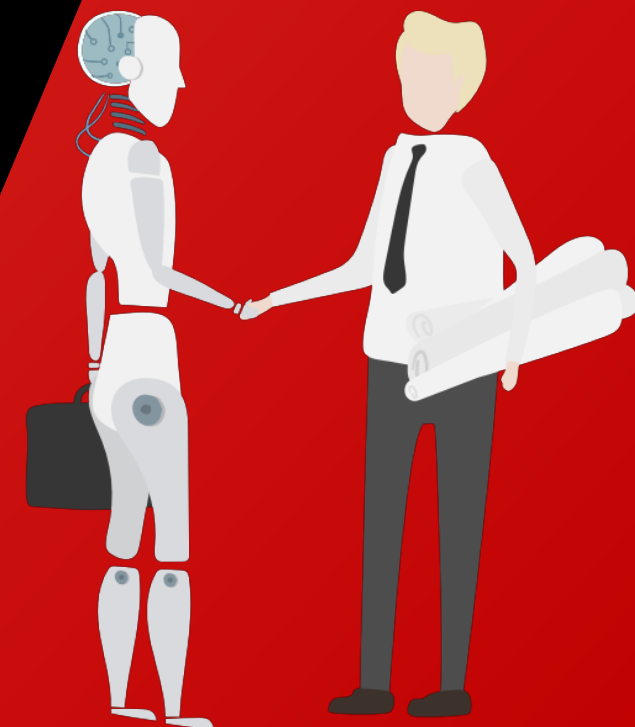
Shared Service

- Postcode / Address Validations
- SMS & Messaging
- Elastic Search
- ICAP
- Auditing
- Identity and Access Management
- Document Publishing
- Analytics and Reporting
- Document Management
- Workflow



Cloud Infrastructure

- Development & Production Environments
- Identity and Access Management
- Developer Services
- IT Help Desk
- Learning Management
- Low-Code – Full Code
- BI and Analytics
- API Management



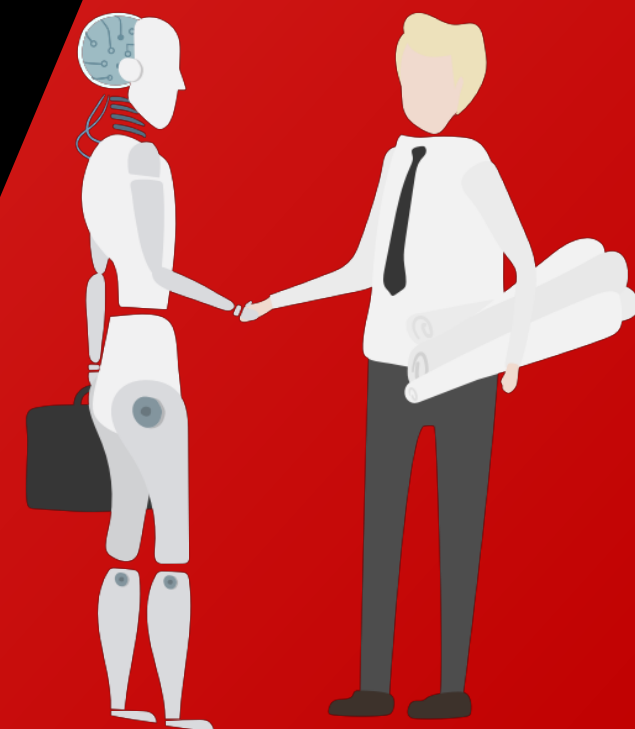
10 Security Considerations

1. Content Security Policy (CSP)
2. Internet Content Adaption Protocol (ICAP)
3. Transport Layer Security (TLS) - SSL
4. Transport Security Policy (HSTS)
5. Data Catalogue
6. Multi-Factor Authentication (2FA)
7. Audit Downloads
8. Download Encryption
9. Data Access Audit
10. Web Application Firewall ...



Training

- **Developer Training**
 - Basics
 - Technology Specific
 - Process
 - Certification Paths
- **End User Training**
 - Application Specific
 - Business Intelligence



Agile

- Natural Methodology for Citizen Development
- Agile Culture
- Training Is Required
- Technology Is Not Required
- Prioritised List
- Kanban Board
- Automation Tools Will Help



Capability Maturity Model

