A story about compilers

Peak of Inflated Expectations

Trough of Disillusionment
Nikolas Goulihas
Senior Solution Architect
Global Accounts
Hyper automation
The IT enabler addressing climate change

Nikolas Goulias
Senior Solutions Architect - Global Accounts
Objective

Why sustainability is a **disruptive** force?

How can sustainability **become an opportunity**?

What is **hyper automation** and how can it be an IT enabler?
INSEAD lessons learnt from digital disruption

SOURCE: INSEAD Executive Education
Hyper automation: The IT enabler addressing climate change

By 2025,
- 50% of CIOs

51% of CEOs

315 flights
2m AI model

7% of companies

SOURCE: Accenture "The Green Behind the Cloud" & Using Technology & Sustainability & IBM Institute of Business Value
Addressing climate change is a necessity and an opportunity

SOURCE: IDC Sustainability Dinner for ICT Industry, London 2022
Red Hat’s ambition to achieve net-zero objectives by 2030

SOURCE: Red Hat Announcement to Net Zero By 2030
Hyper automation is a business driven approach to identify, vet and automate as many business and IT processes as possible. IT’s role is to provide the tools to allow fusion teams to sculpt the change.”

Gartner Top Strategic Technology Trends 2022
Hyper automation: The IT enabler addressing climate change

1. “increase the energy efficiency of IT infrastructure
2. raise utilisation rates of shared resources
3. measure and track ESG across IT suppliers”

Gartner Top Strategic Technology Trends 2023
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Achieving Hyper Automation

Foundation

Level 1
Aware

Level 2
Standardised

Level 3
Proactive

Level 4
Institutionalised

Level 5
Optimised

Expand

People: Sustainability via minimizing the impact on IT
Business: Sustainability via contributing to overall ESG objectives
Technology: Sustainability via reducing emissions footprint

People: Productivity
Business: Customer Experience
Technology: Efficiency

Level 4
Institutionalised

Level 5
Optimised

Hyper Automation

Technology: Efficiency
Business: Customer Experience
People: Productivity
Hyper Automation as an enabler

Three lenses to understand and address the complex problem

People
- Minimize the impact on IT
- Work effectively with less effort & time
- Balance ubiquitous governance & freedom

Applications
- Include ESG requirements in software development
- Champion Dev & GitOps practices
- Run apps when & for how long is needed

Journey to Cloud
- Automate the whole cloud journey & everything in between
- Optimize capacities & improve utilization via containers
- Consistently measure, track and govern ESG across footprints
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People Scenario

People Impact with 75% Automation

Server administration
Network management
App management
Testing
Disaster recovery

SOURCE: Red Hat Business Value CoP and Ansible Time Savings RoI
Applications Scenario

Average idle capacity from 55% to 32%

Automated scaling
Spinning resources
Reacting to events
Serverless

Application Using Event & Serverless Architecture

SOURCE: Red Hat Business Value CoP and Ansible Time Savings RoI
Hyper automation: The IT enabler addressing climate change

DevOps Scenario

SOURCE: The Big Picture
Hyper automation: The IT enabler addressing climate change

GitOps Scenario

SOURCE: GitOps from Development to Production, Johana Limka & Matt Roberts
Journey to Cloud Scenario

- Traditional N-tier apps
- Cloud-native microservices
- Data, analytics, and AI/ML
- ISV packaged apps

Development tools
Management and automation systems

Applications, data platforms, and operating system

- Bare metal
- Virtual
- Private cloud
- Public cloud
- Edge
Key Takeaways

Sustainability is a **disruptive** force

Sustainability is also an **opportunity**

**Hyper automation** is an IT enabler addressing climate change via:

People, Applications, and Journey to Cloud
"Sustainability is the most difficult IT topic to work on, so please get all the help and brain power you can."

Professor George Dimitriou

SOURCE: Professor George Dimitriou, University of Thessaly
Thank you

linkedin.com/company/red-hat
youtube.com/user/RedHatVideos
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