

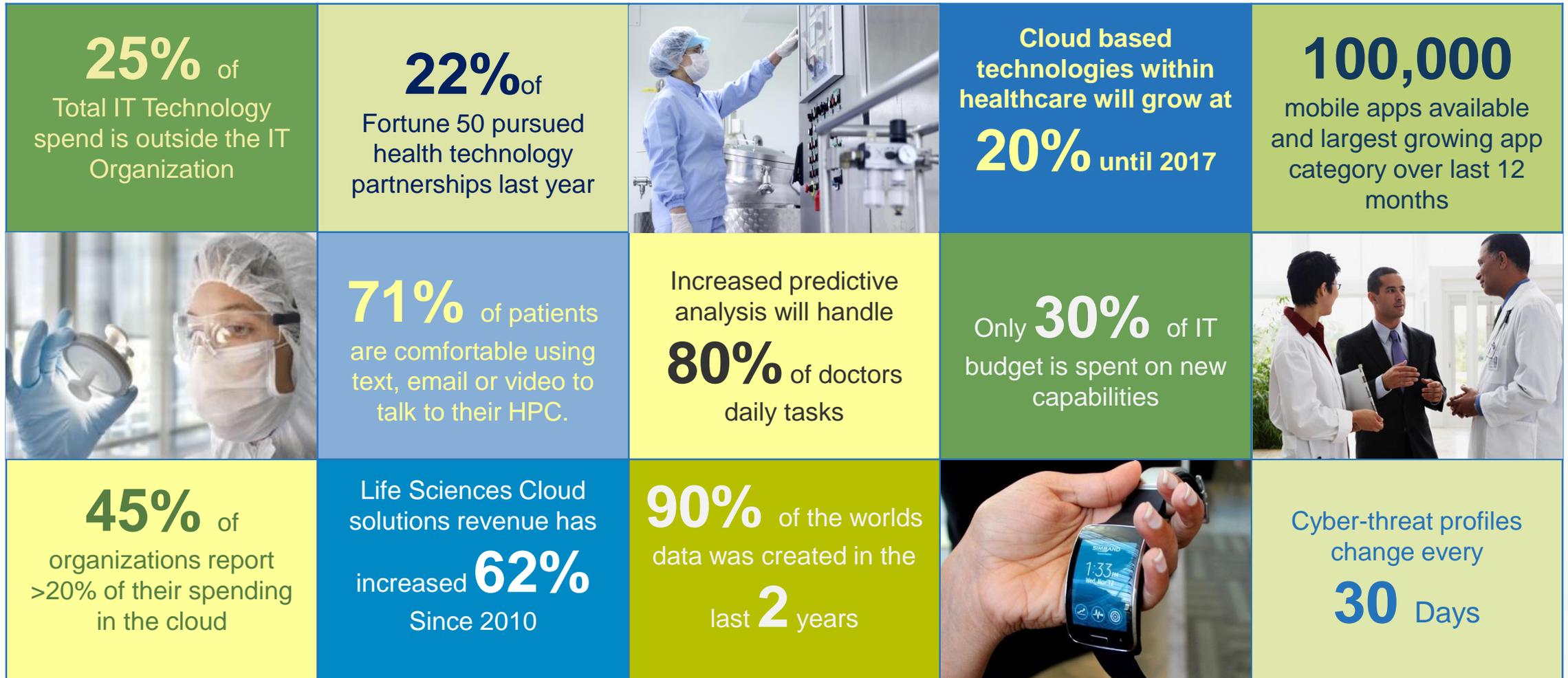


Cloud disruption of the Biopharmaceutical industry

The changing landscape of technology

Matt Griffiths - March 14th 2016

The New Enterprise IT Landscape



Leading life sciences companies will be able to leverage the cloud as a source of competitive advantage.

Examples

- Outcome based, payment by results
- Integrated diagnostics and services
- Accelerated product development

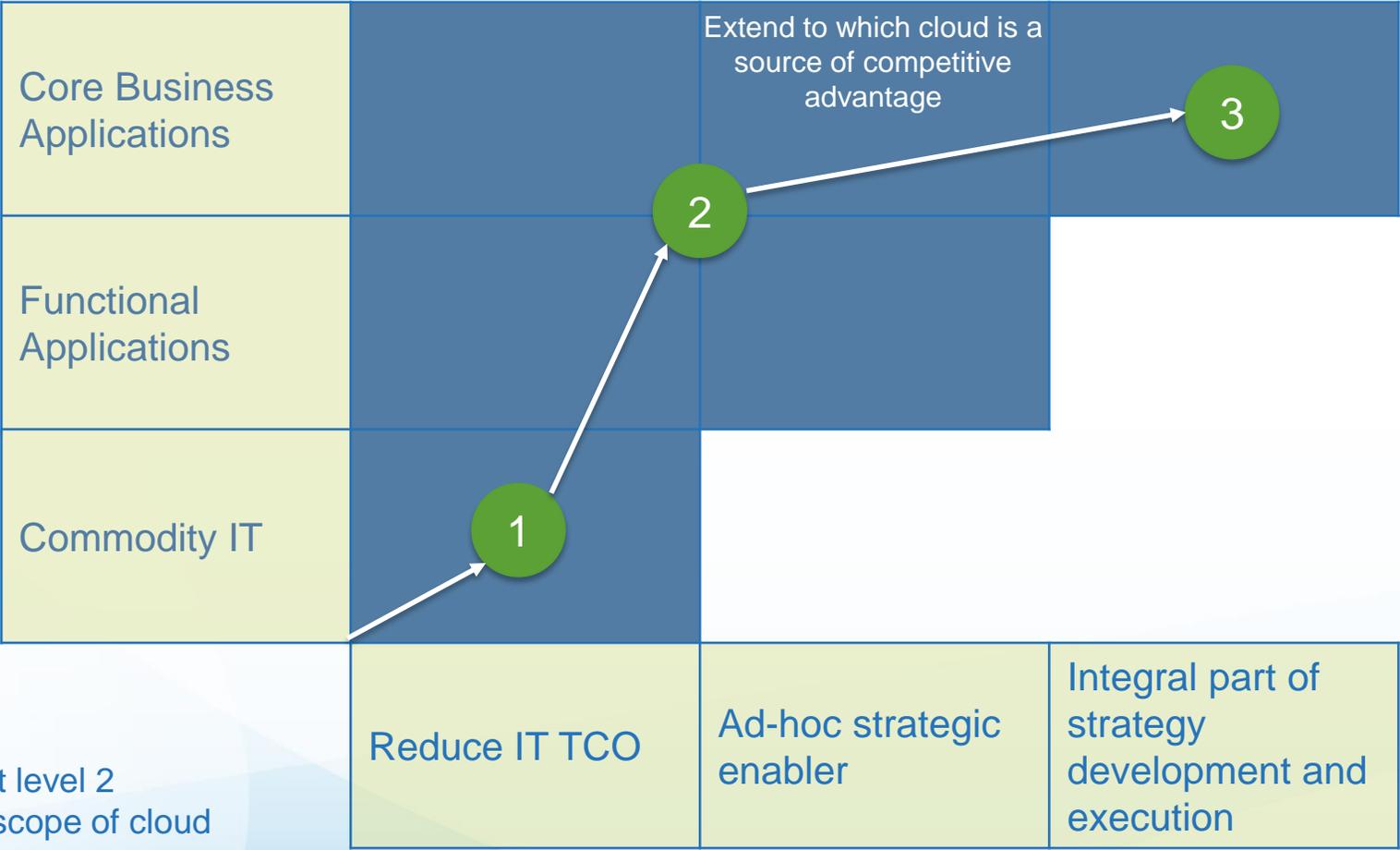
- Point solutions for R&D, Manufacturing & Supply and sales and service
- Internal and external collaboration

- Storage and compute
- Email
- Collaboration tools

Leading life sciences companies will be:

- Realizing the available value from level 1
- Proactively and systematically exploring opportunities at level 2
- Preparing for level 3 as the cloud matures – depth and scope of cloud market increases

Product Centric ← → Patient Centric



Business Value →

Cloud first is now the norm across the Enterprise

But growth has been organic and point solution focused.

Corporate



Research



Development



Operations



Commercial



Infrastructure



Cloud driving significant behavioral change

Cloud technology shift has far reaching implications.



Engagement

- The 'old' engagement model doesn't work. New focus is on business process change rather than software change.
- Harder to ensure engagement in early discussions.



Talent & Skills

- Increased demand for Business Analysts, Enterprise architects & integration specialists
- Testing & Quality functions increasingly important in a 'trust but verify' relationship



Policies

- New expectations from vendors on disaster recovery, scalability, change management
- Limits of liability are difficult to negotiate



Financial Management

- Spending shift from Capex to Opex inconsistent with current budget and accounting models
- Expect multi-year agreement, vendor break even is usually 18-22 months



Security

- Cyber-security audit scope extending outside the enterprise.
- Ability to support BAA/HIPAA or CFR21 Part 11 reqs may vary



Operational Excellence

- SLA's lower than internal standards, 99.5% is common, difficult to get meaningful penalties
- Requires active role in continuous improvement initiatives

Discussion: Finding the guardrails

1. Managing Organic Growth

- Governing strategy and architecture without stifling innovation.
- Ensuring early engagement in business problem definition.

2. Private vs Hybrid vs Public cloud

- Consolidating, reporting on and driving insights from disparate data sources
- Balancing cost, reliability, performance
- Enterprise IT role in managing SaaS providers and solutions.

3. Transforming the workforce

- Culture shift from 'developing software' to 'developing processes'
- Delegating responsibility to Cloud solution providers