



Global Technology Outlook 2010

IBM Research

Future of Legacy



Repeated and integrated legacy efficiency improvement for and beyond IT is a must



Continuing legacy efficiency improvements are key to maintaining innovativeness in enterprise .IT infrastructure and business operations

Legacy efficiency improvements can be maximized through an integrated approach from top to bottom of the business operations.

Sustained legacy efficiency improvements follow a continuous control loop of identify - improve - operate.

Legacy Definition & Classification

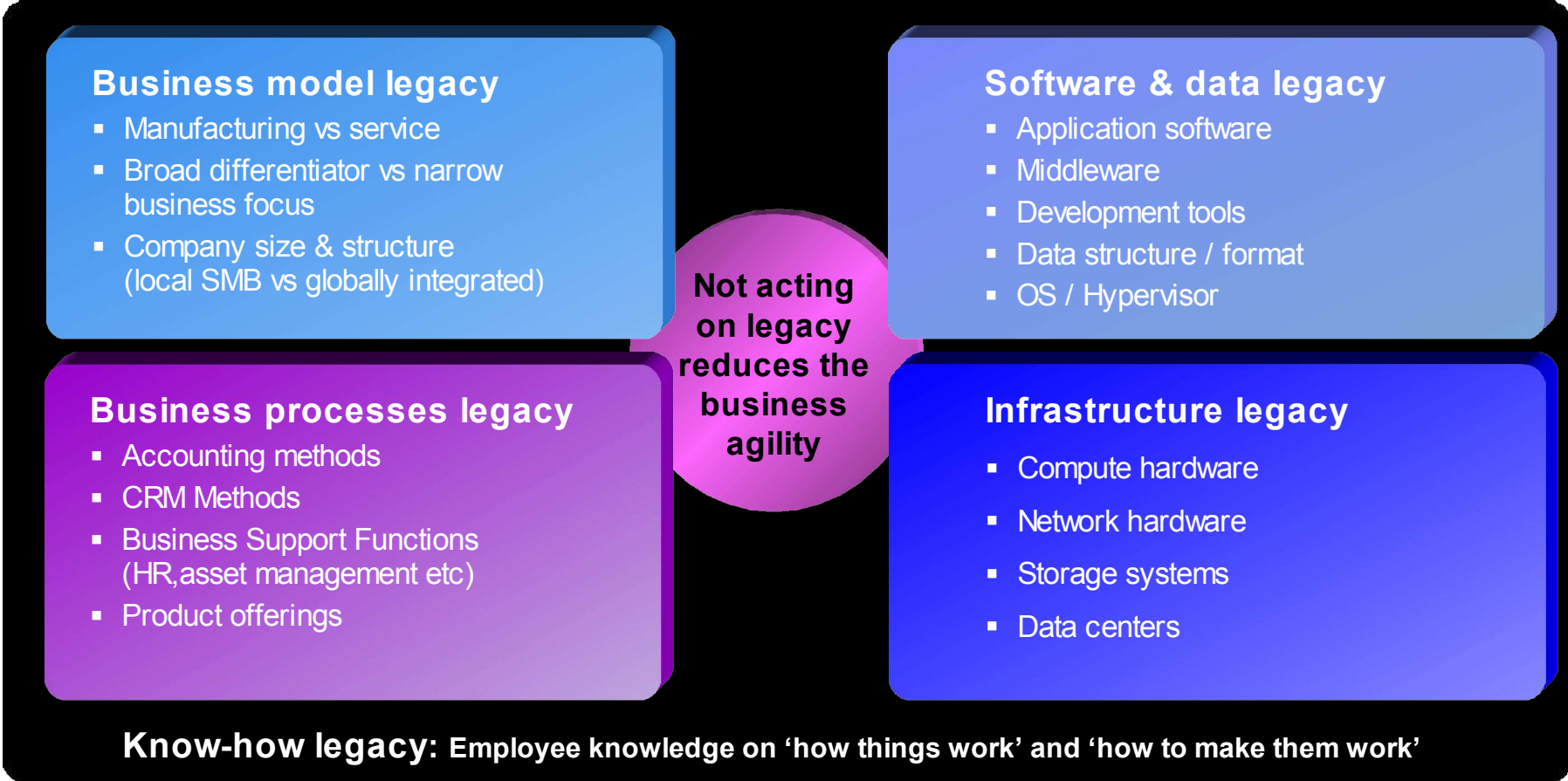


Five legacy classes & definition of legacy



Legacy needs to be addressed from day one and goes way

Definition of Legacy: As soon as a business model, process, software, data format and/or infrastructure is deployed, it is considered to be legacy.

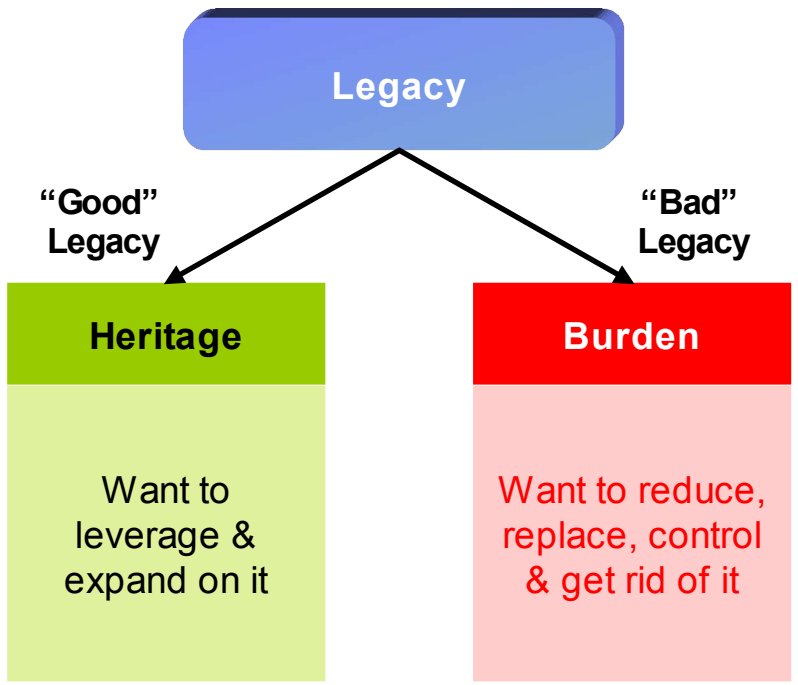


Corporate legacy has positive and negative sides and forms a legacy value stack



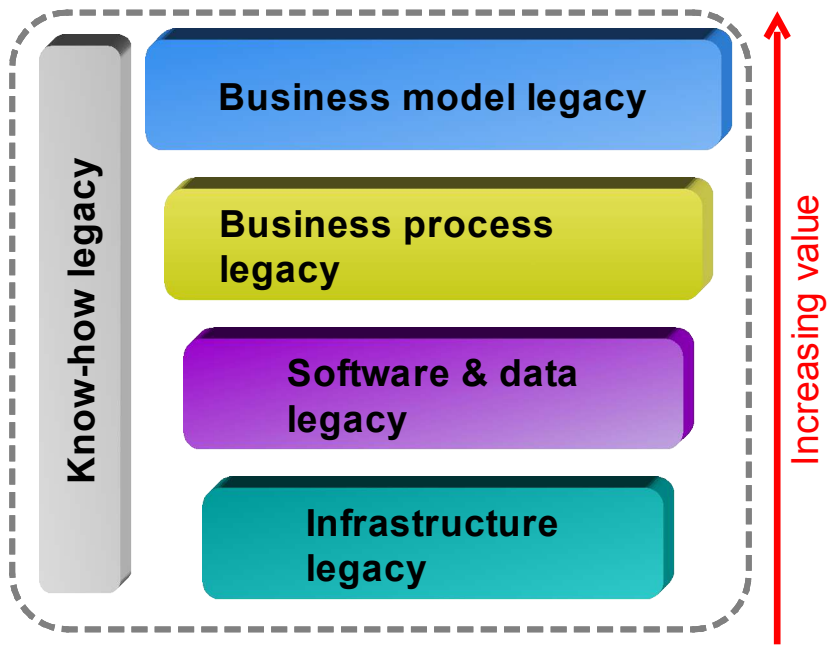
Legacy can be heritage or burden.

Technologies can help customers to identify which legacy is heritage and which is burden, and help to take the appropriate actions to handle legacy.



Corporate legacy cuts across every aspect of the enterprise.

Therefore, it can only be addressed effectively if it integrates Systems, People & Culture, and Processes around an agile business and information design



Legacy needs to be treated differently depending on the heritage/burden aspect. Any legacy related effort has higher value when targeting higher items in the legacy stack.

New and emerging technologies and new business realities are changing the game. Technology enables constant & integrated legacy efficiency improvement across Legacy Value Stack



Technology aspects

Infrastructure

- Virtualization
- Hybrid systems
- Cloud
- Increasing infrastructure reliability
- Ubiquitous network availability
- HW abstraction
- Cost shift from acquisition to operation
- Decoupling of apps and HW via middleware, Java, XML, etc

IT Integration

- BPM
- Security
- Web 2.0
- SOA
- SaaS
- Business resilience
- IT monitoring
- Network delivery
- Services inventory
- Application consolidation

IT Analytics

- Automated legacy discovery
- Legacy Stack Interdependency identification
- Security needs discovery
- Value modeling and prediction
- Risk analysis methods

Business aspects

Business environment acceleration

- Business agility increase
- Smarter business
- Globalization
- Business model innovations
- IT budget pressure
- Economic changes
- Market fluctuations
- Shift towards service oriented business models

Technology and business realities lead to significant change in priorities

Focus on constant Legacy Value Stack optimization by leveraging a range of the new and emerging technologies is a must to maintain the capability to be innovative

Note: Enumeration of Technology Items above is in non-closed form

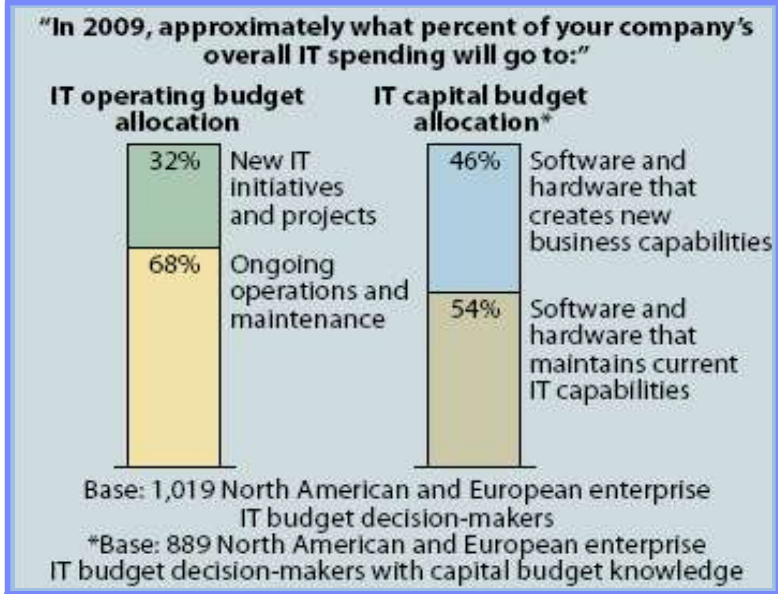
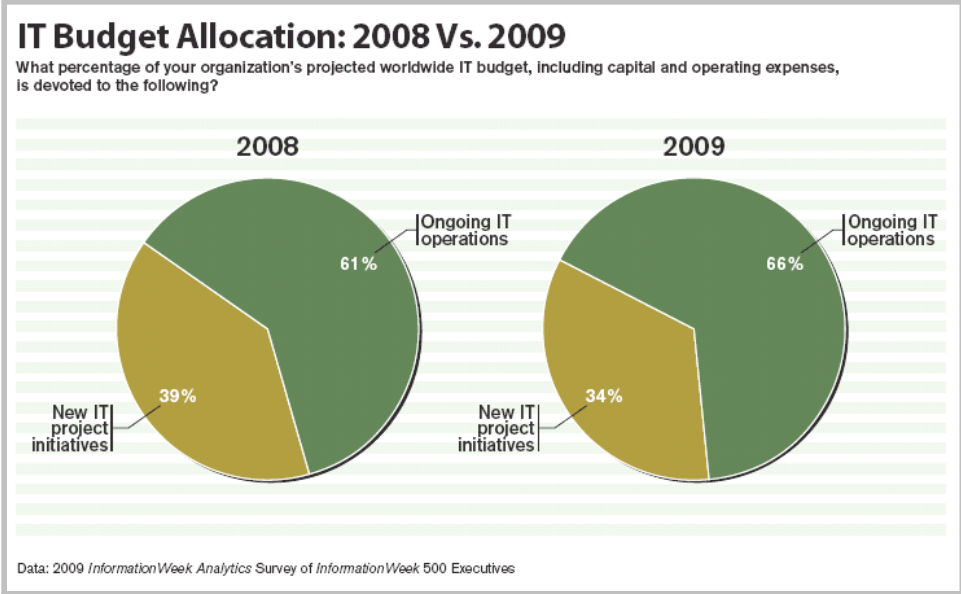
Business Context



Extent of the problem: "Keep the lights on"- crunch Majority of IT budget is spent for ongoing operations



IT Budget Trends: Keeping the lights on is becoming dominant!

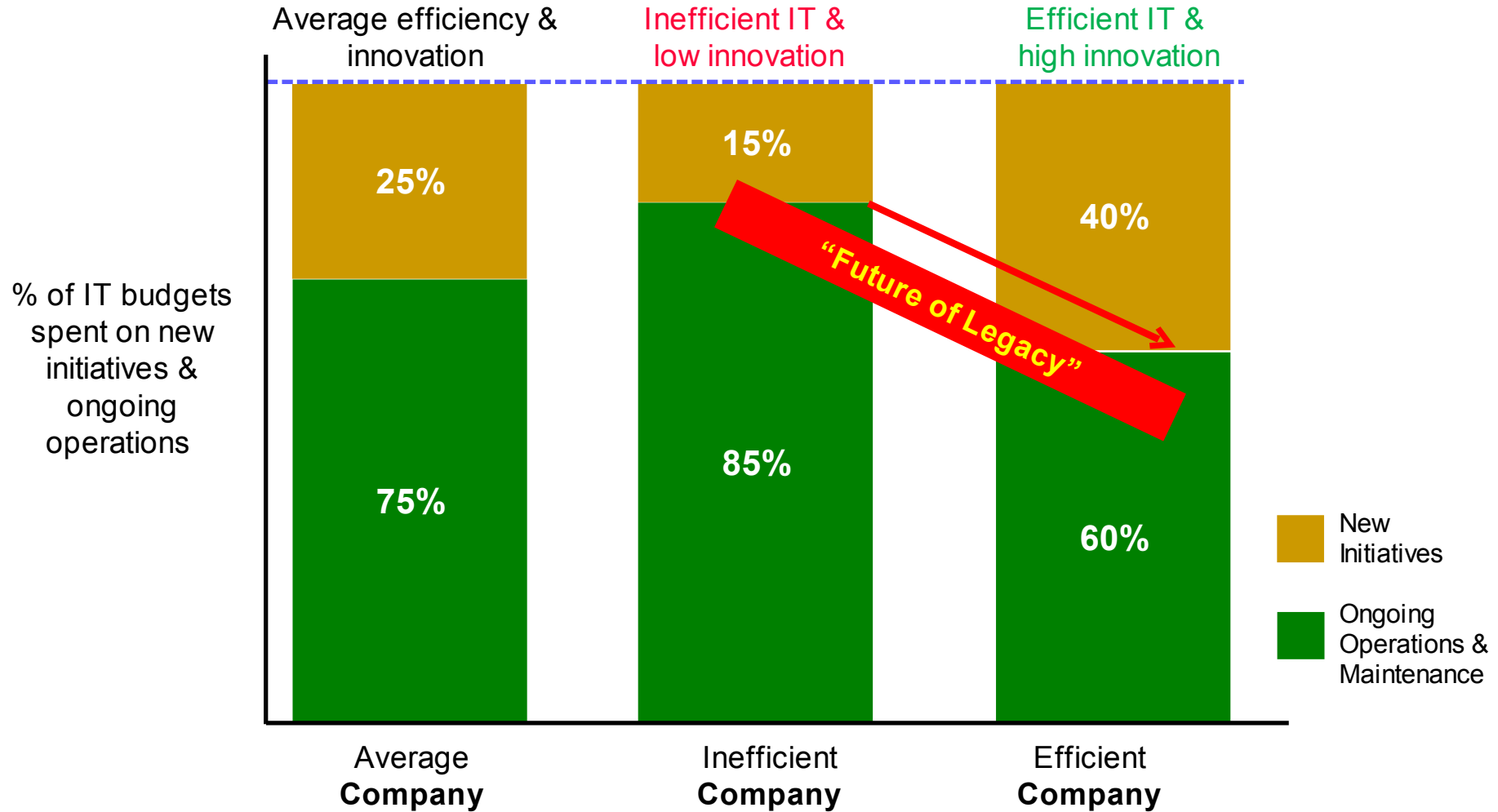


SOURCE: "The State Of Enterprise IT Budgets: 2009", Forrester Research, Aug 2009

Example from a Dutch bank: ~ 80% of budget to keep lights on, 20% "new things" (today) - however, in 2009 and 2010 there are ~10% budget cuts: That means "new things" will disappear and the relative cost to keep the lights on becomes dominant.

Optimum IT budget split: focus on efficiency & innovation – not spending.

It is essential to focus on continual legacy efficiency improvement to stay innovative



SOURCE: "The Economics of IT: Improving IT Budget Decisions", David Metcalfe, Forrester Research, 2004?

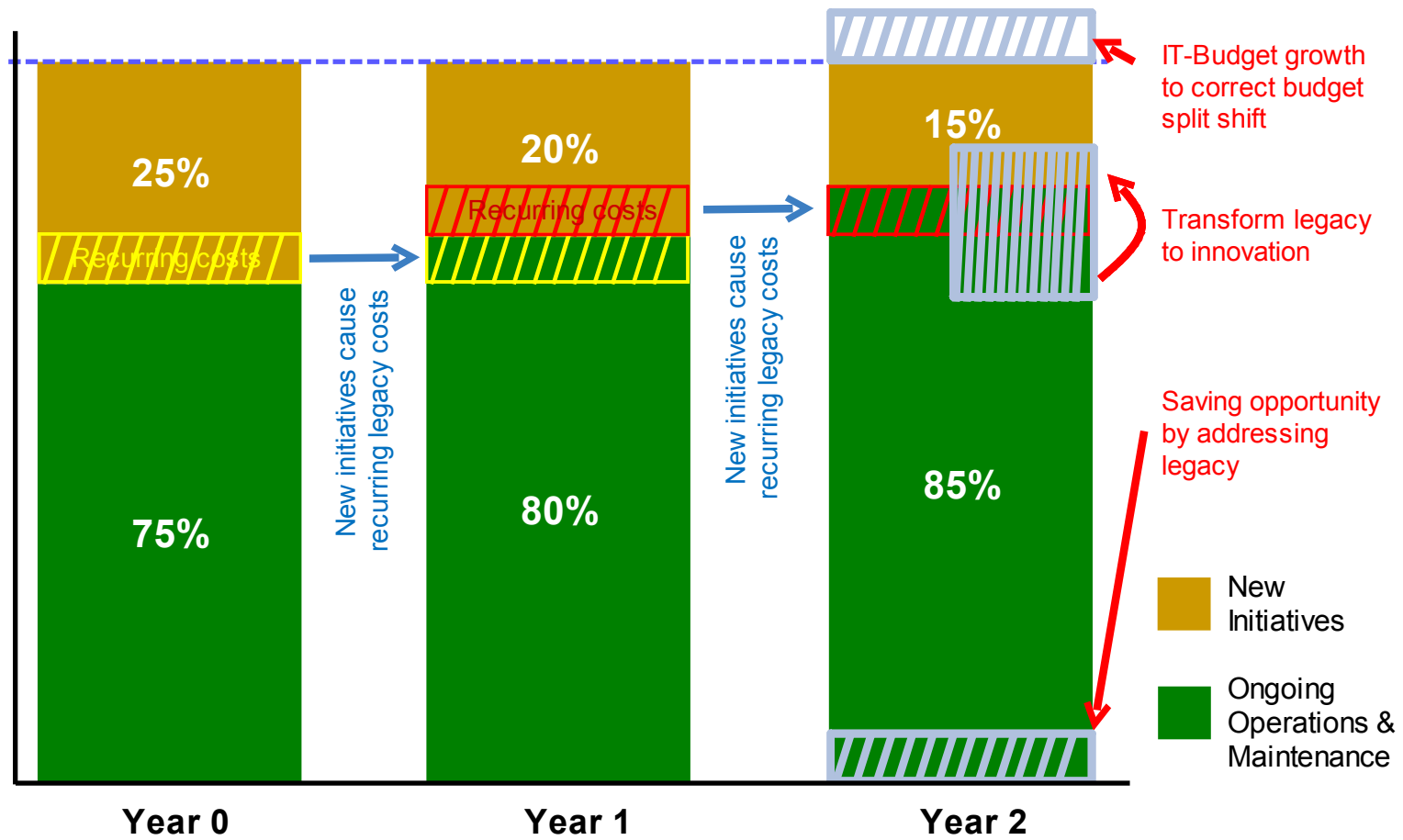
IT budget split: multi-year perspective – innovation becomes legacy

Legacy transformation, not budget growth, is the key enabler to remain innovative



% of IT budgets spent on new initiatives & ongoing operations

Recurring cost of new initiatives (e.g. maintenance fees, depreciation, labor,...) cause an increase in the IT-budget percentage spent for ongoing operations.



This unwanted shift in IT-budget split needs to be compensated by either IT-budget growth, or by reducing and/or transforming legacy.

Legacy Control Loop & Integrated Legacy Service Offering



The Legacy loop: a control loop for constant, increased efficiency in the Legacy value stack



The Legacy Control Loop implies that continued and repeated actions are a must.



The ability to master the “Legacy Loop” has impact on...

- Ability to change a business and react to market changes;
- Ability to manage business operations in a changing environment;
- Ensuring that business critical applications keep running;
- Ability to differentiate.

Identify & Qualify

- Legacy Discovery**
 - Where is the legacy located (logical, physical) and how business critical is it?
- Legacy Inventory**
 - Keep track of legacy to enable proactive legacy management

Improve: Leverage or Reduce

- Move / migrate legacy**
 - Move legacy to new software/infrastructure
 - Help with business model & process migration
 - Leverage Cloud & SOA
 - Wrap legacy code (example: new GUI)
- Reduce the unnecessary**
 - Consolidate business critical legacy
 - Shut-down non-business critical legacy
- Evolve legacy**
 - Add functionality to legacy
 - Leverage data from/to other applications
 - Free data from application lock-in
- Emulate legacy**
 - Emulate code on newer hardware
 - Use other business processes to implement functionality

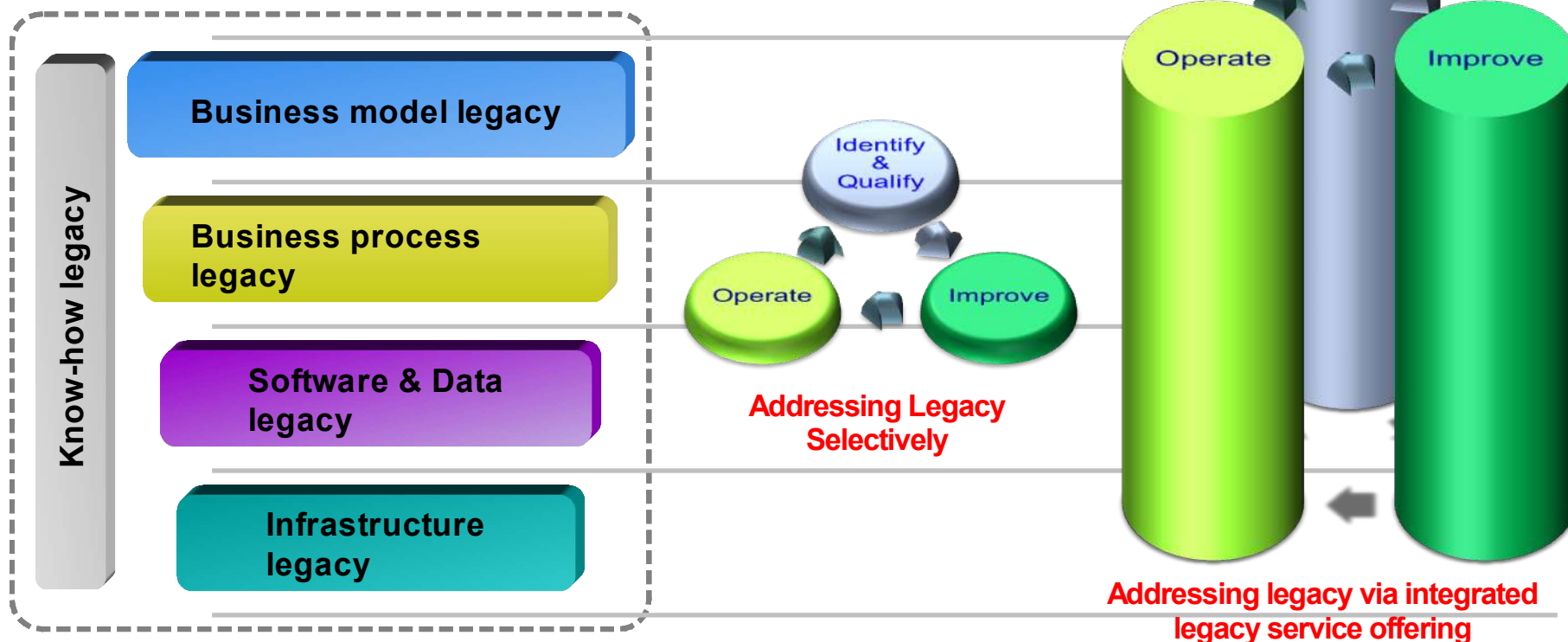
Operate

- Manage legacy**
 - Keep business critical legacy running
 - Ensure legacy management resources (people, hardware)
- Avoid new legacy issues**
 - Legacy planning
 - Legacy council (Make investments “Legacy proof”)

The Legacy Control Loop: Identify & Qualify, Improve, Operate Legacy



The legacy control loop can be applied selectively to one legacy class – even to one single legacy item – but is more efficient when applied in the form of Integrated Legacy Service Offering across several legacy classes.

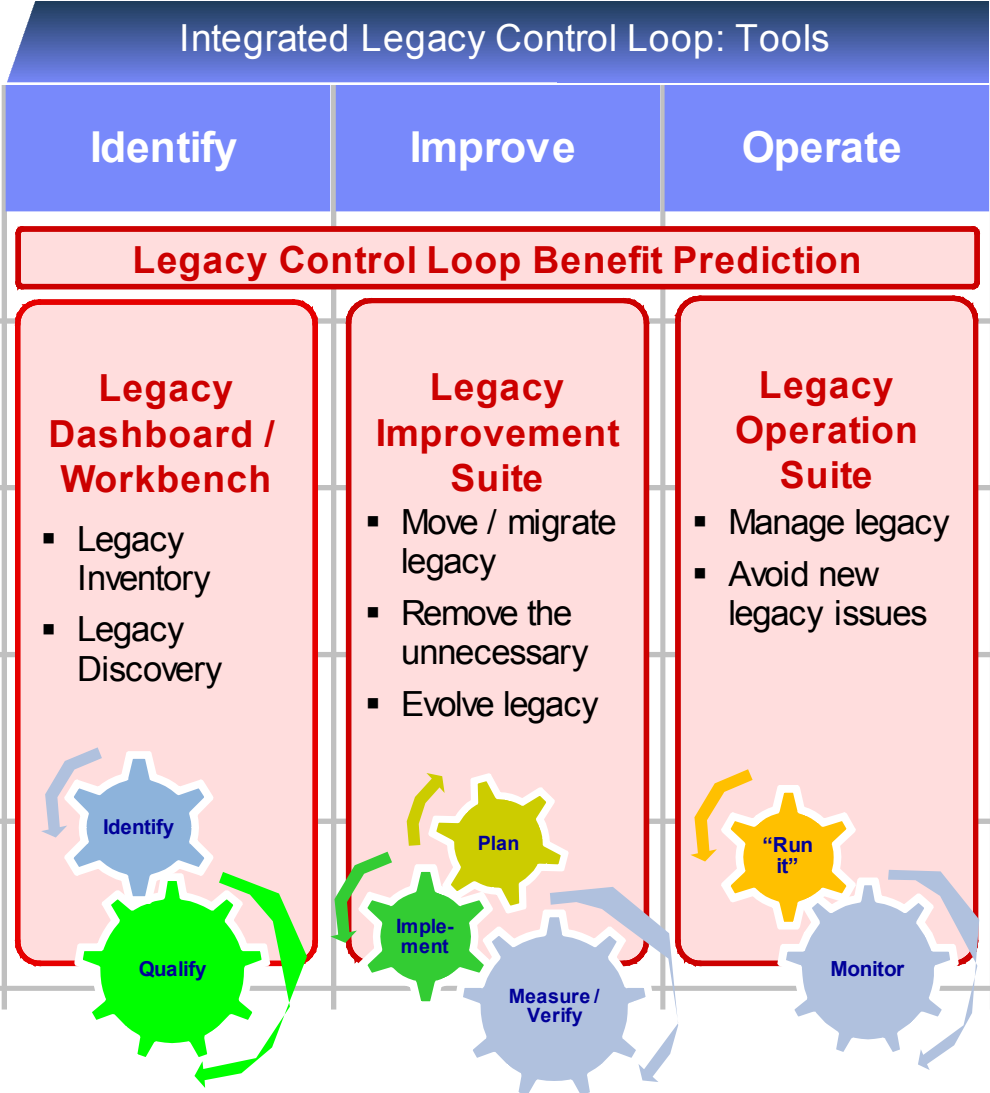
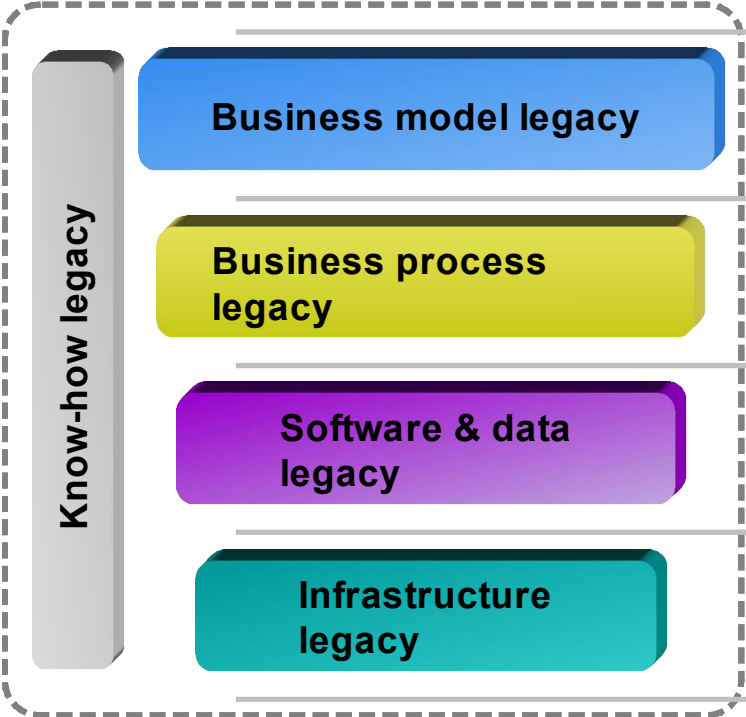


Continuous legacy efficiency improvement efforts can be maximized through an integrated approach from top to bottom of the business operations.

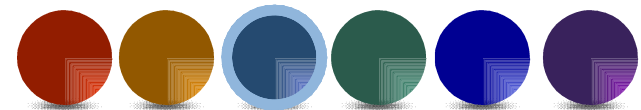
Integrated legacy service: Legacy Dashboard, Improvement and Operations Suite



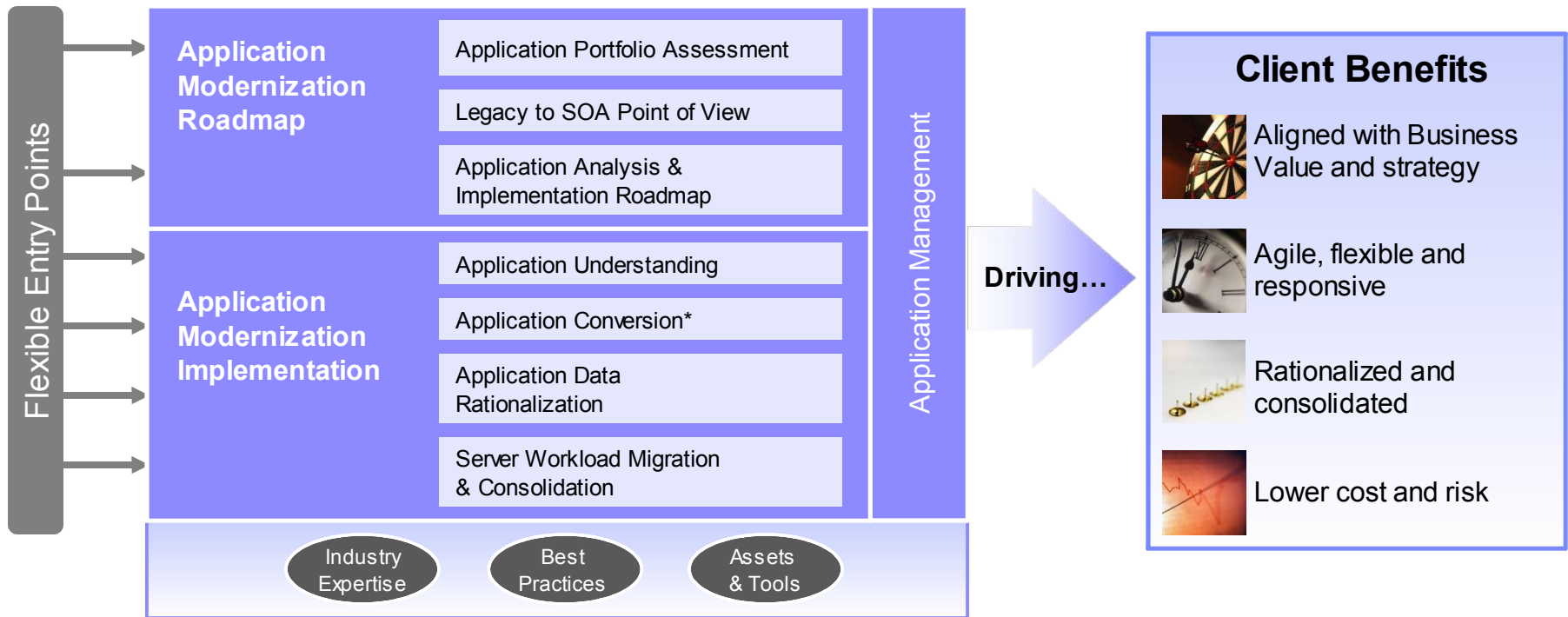
Assemble existing (and new) tools to analyze the Legacy and address the Improve & Operate aspects of the Legacy Control Loop



Business Application Modernization Solutions which extend legacy



IBM's Business Application Modernization services provide a proven approach to deliver business value and flexibility

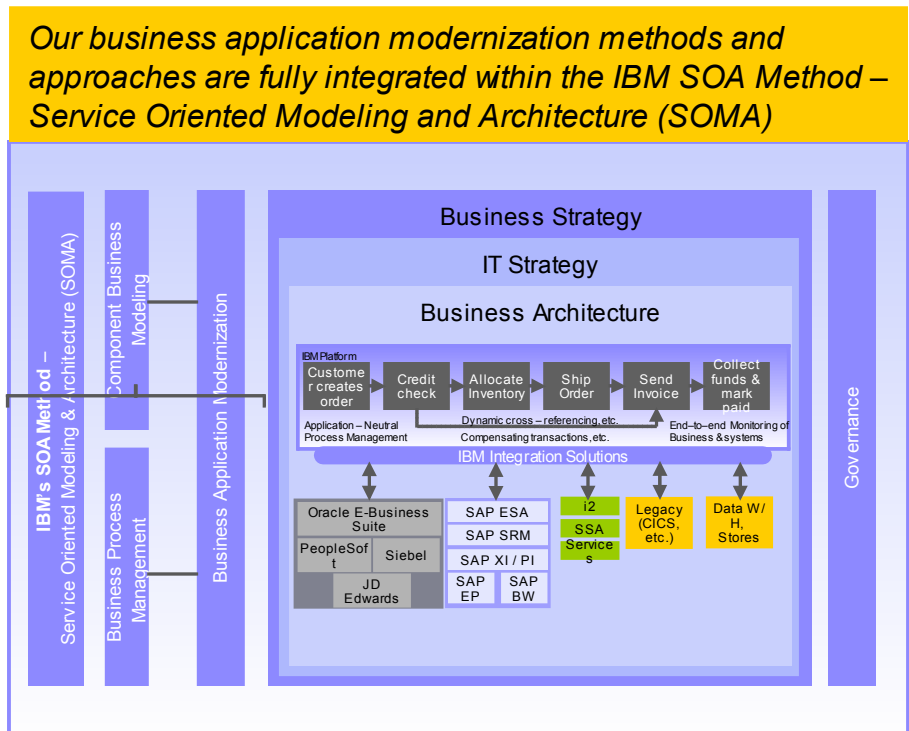
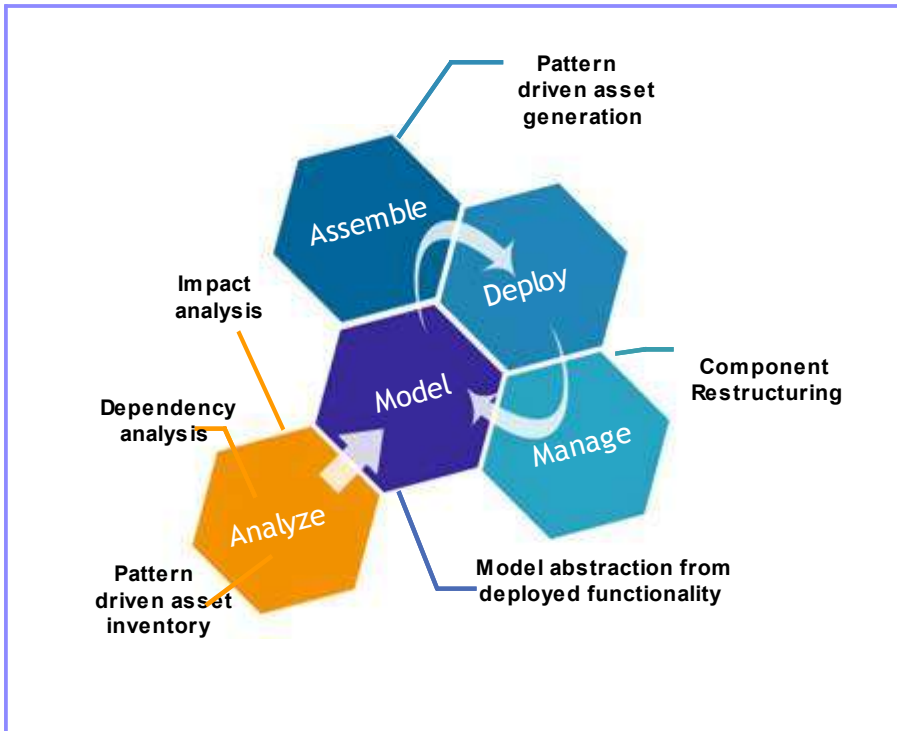


* SOA enablement available

The entry point and progression will vary to meet client objectives and needs

IBM's Business Application Modernization Services includes proven accelerators which, if desired, are aligned with IBM's SOA Method

- **Accelerates** software discovery with proven methods and tools
- **Leverages** functional DNA to identify candidate services
- **Defines** the structure of components and interdependencies
- **Reuses** existing legacy code in the target solution



IBM's Business Application Modernization services are flexible, asset-based approaches that draw on engagement experiences

Flexible Scope

Focus on the most appropriate scope, taking into consideration primary challenges and preferred speed and direction.



- Full application portfolio or cluster



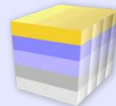
- Global, Country, full Business Model or specific operating unit

Assets & Accelerators

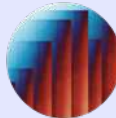
IBM's assets and methods support rapid start up and time to value analysis.



- Application Analysis questionnaires and measurement frameworks



- Industry Business Models



- Application Portfolio benchmarks



- Financial analysis & Return on Investment models



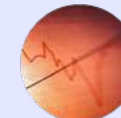
- SOA enablement frameworks and reference models

Our Experience

We can draw on thousands of completed engagements of different shape and size - experience that has been harvested into our methods and assets



- Client case studies available to demonstrate the value proposition



- Completed engagements give us benchmarks and insights on high value areas



- IBM's experience of using these approaches is an outstanding view of what is possible

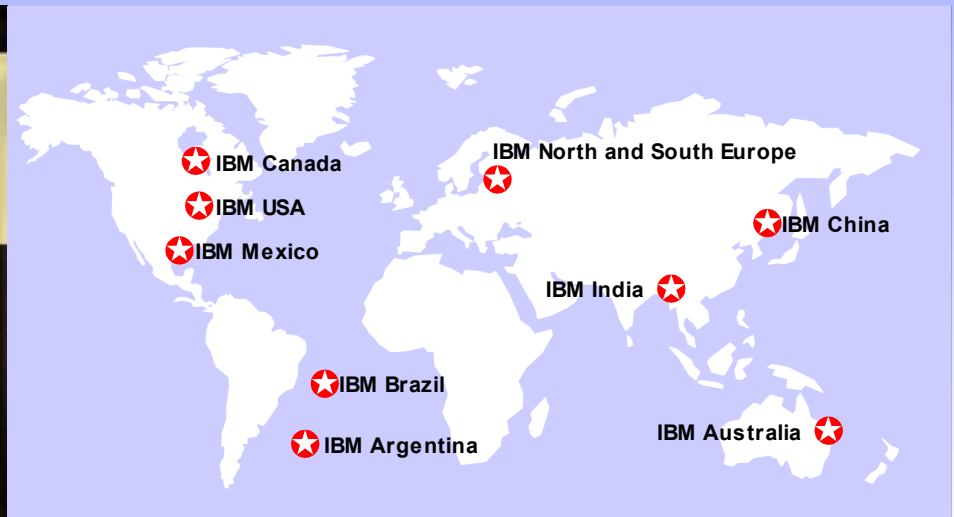
IBM can draw on an extended eco system of tools and assets with IBM Research, IBM Software Group and our business partners



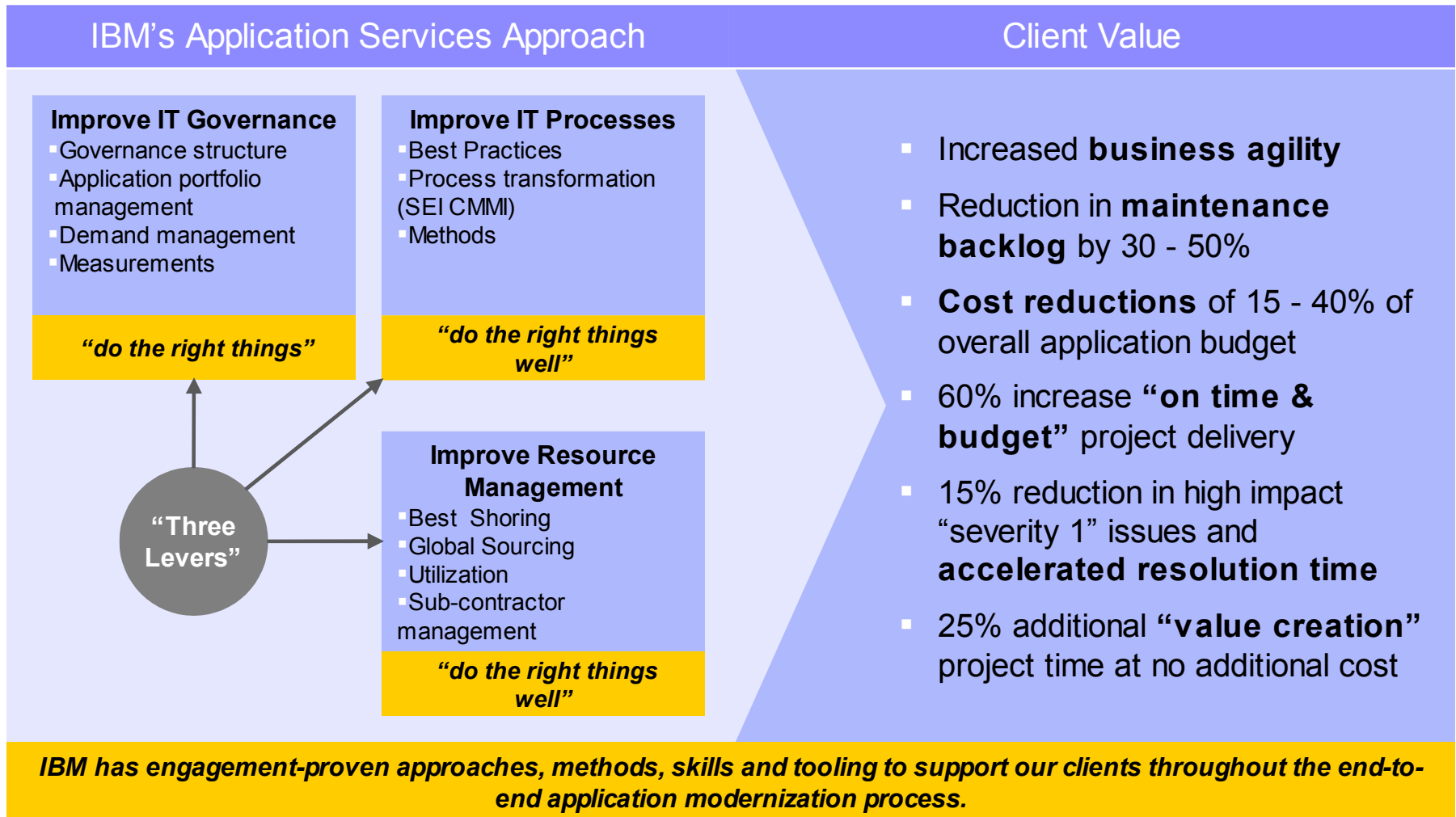
We apply our modernization services to your specific technical requirements

IBM has experienced resources and deep skills in Business Application Modernization around the globe

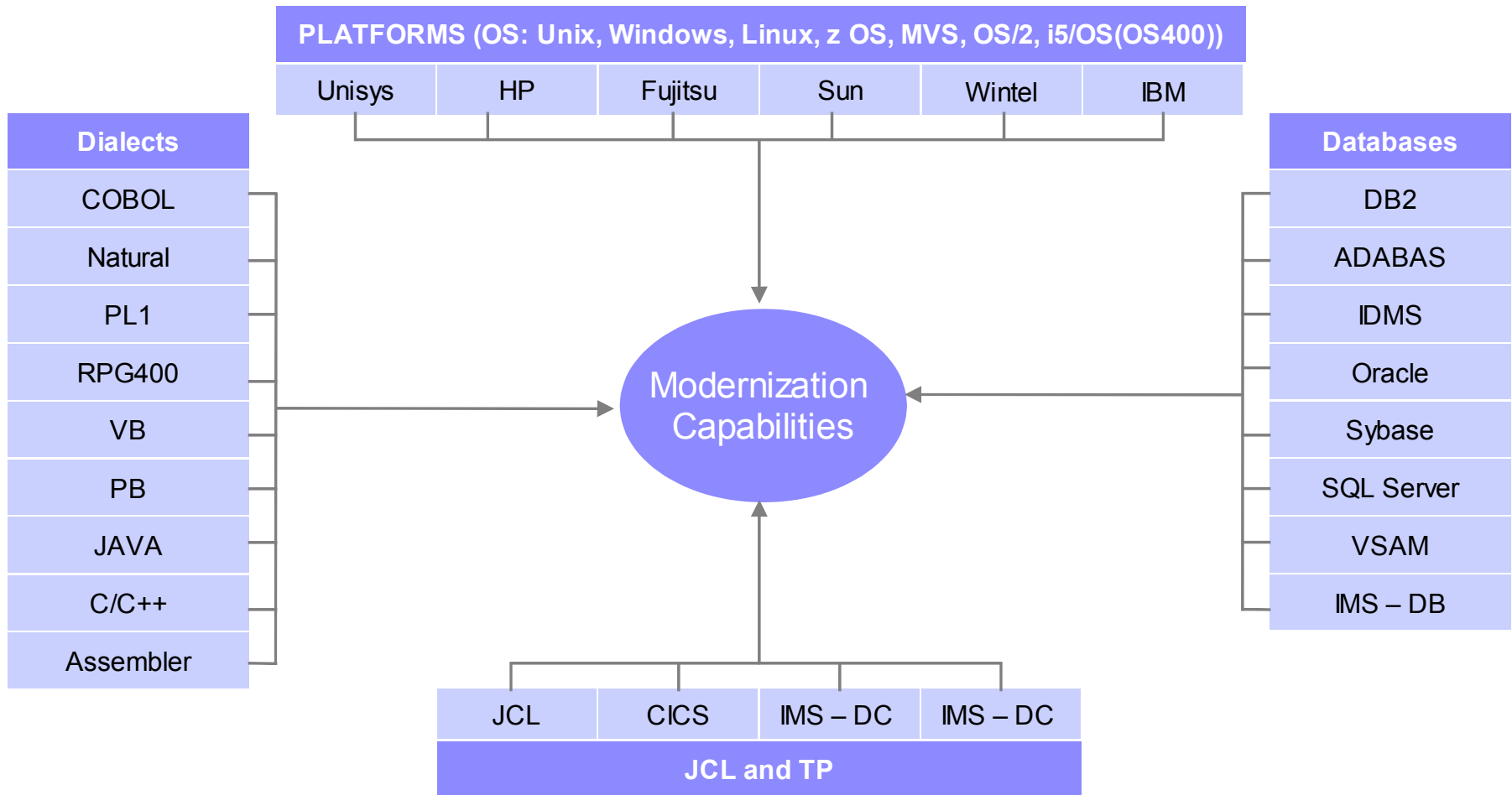
- Global skills and competencies ensure consistent delivery methods and quality
- This reduces risk and enables optimal delivery models and teaming worldwide
- Provides increased flexibility to meet project staffing, cost, and schedule challenges



Application Services can accelerate and maximize the business value of application modernization transformation



Vast experience in technologies and platforms underpins our business application modernization capabilities



Why choose IBM?

Our proven track record

- A **comprehensive end to end** portfolio of Business Application Modernization, proven in thousands of client modernization programs worldwide
- Experienced consultants, architects and subject matter specialists, working in **71 client service centers worldwide**
- Methods and assets that enable **consistency and repeatable quality** focused on successful modernization outcomes
- Backed by intellectual capital, templates and best practices that can **accelerate time to value**

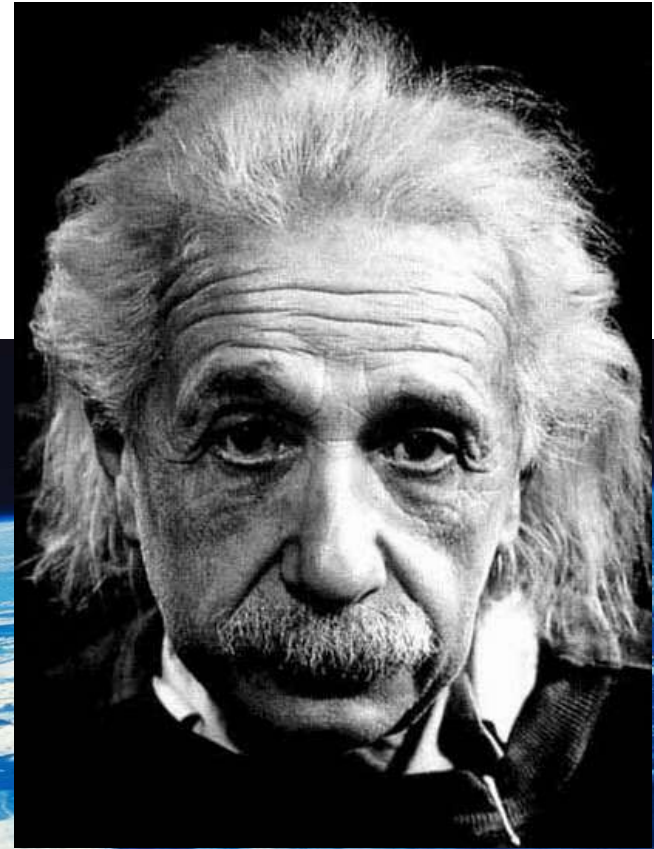
Our worldwide presence

- Provide high-value business and IT consulting, architecture, design and implementation services leveraging vast internal and external experience
- IBM employees in 75 countries, serving clients in 170 countries worldwide
- 200,000: IBM Global Services employees

Our leadership in SOA

- **300**: U.S. patents granted to IBM for SOA-related products
- **11**: IBM SOA centers of excellence worldwide
- **50**: contributions to SOA-specific open source projects
- **50**: SOA-based standards committees to which IBM contributes

“Lo insensato es hacer las mismas cosas una y otra vez y esperar resultados diferentes”



Gracias

