



**IS *e*EVOLVING**

**INVESTMENTS, CHANGE CAPACITY  
AND SOA**

RICHARD BOYNETT

# Leveraging existing investments and increasing change capacity

Richard Boynett - CIO for Electrocomponents

- Extensive experience delivering large global business transformation projects
- Achieved by building strong mutually beneficial partnerships within the business and with the providers of Information Technology
- Leveraging the power of strong partnerships to deliver business value
- Previous experience in:
  - Automotive manufacturing,
  - Chemicals,
  - Consumer energy
  - High tech manufacturing,



# About Electrocomponents



**radiospares**  
*la nouvelle distribution*

- Operate in 24 countries, serve 160+ via third-parties
- Sell via e-procurement, internet, paper catalogues and CD
- High level of service differentiates from high-volume distributors
- 50% gross margins from an average £80 order value
- 1.2 million customers per annum globally
- 350,000+ products -- over 99% are in stock
- 24 hour, 365 day order-taking, same-day dispatch guaranteed
- Undergoing significant change to core business processes
  - Upgrades to supporting applications and architecture
  - Driving considerable business improvement: both top line growth and operating cost reductions

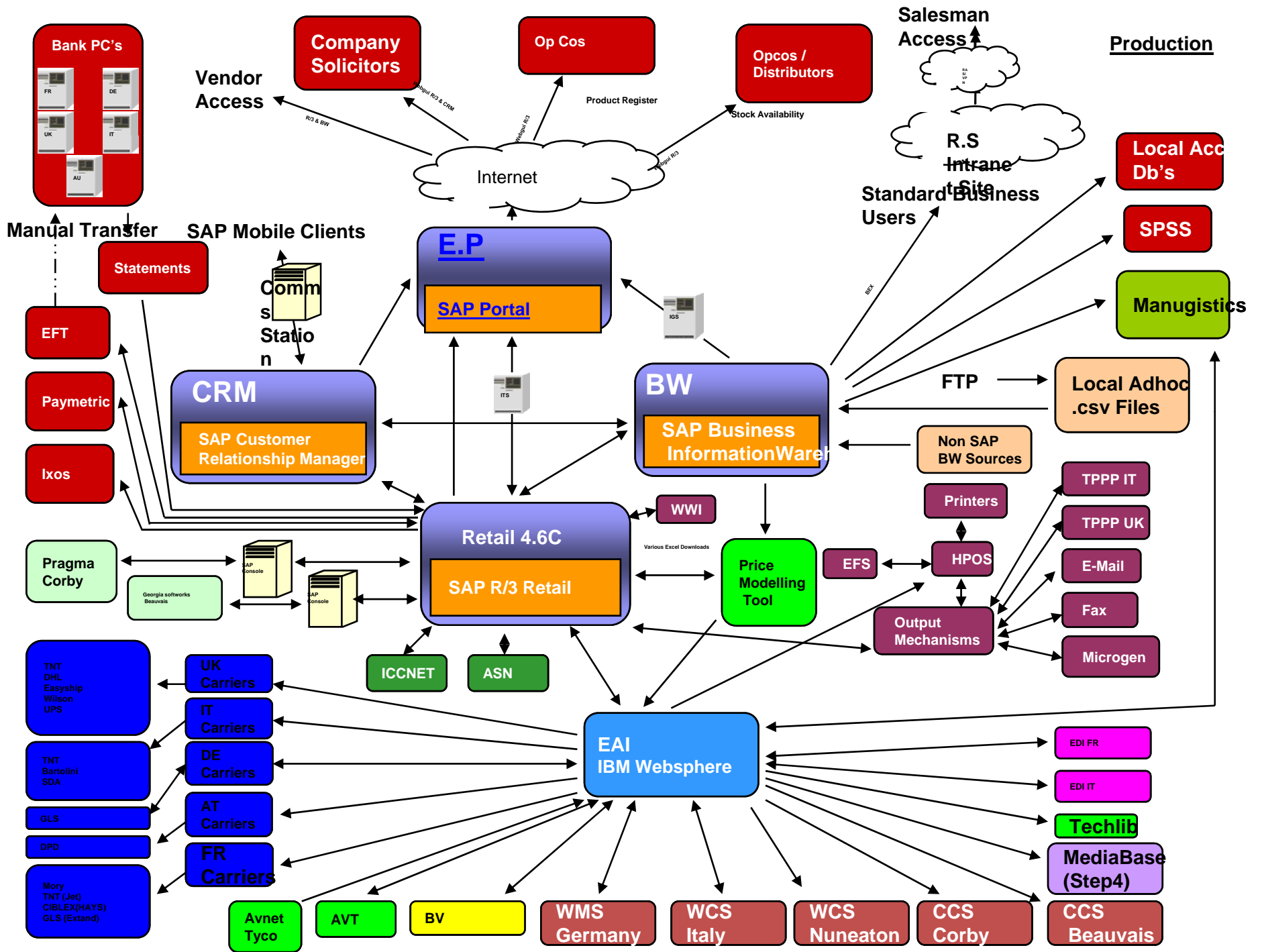
INVESTMENTS, CHANGE CAPACITY AND SOA

# WHERE HAVE WE COME FROM?



# Year 1: People, processes and technology were not ready

	People	Processes	Technology
<b>State in Year 1</b>	<ul style="list-style-type: none"> <li>• <b>Heroes &amp; Firefighters</b></li> <li>• Reactive, tactical organization</li> <li>• Aligned to point applications and departments</li> </ul>	<p><b>No disaster recovery plans</b></p> <p><b>No policies or procedures</b> for:</p> <ul style="list-style-type: none"> <li>• Asset protection / Security</li> <li>• Data centers</li> <li>• Desktop support – <b>no 24x7</b>, follow-the-sun support</li> <li>• End-user services – <b>no support outside 7 major facilities</b></li> </ul> <p>No system inventory (<b>~ 2 desktops for every employee</b>)</p> <ul style="list-style-type: none"> <li>• No procurement or provisioning policies</li> <li>• No standard development methodology</li> </ul>	<p>Malnourished infrastructure – running on <b>5 year old technology</b> in anticipation of upgrade programs</p> <p>Disparate systems:</p> <ul style="list-style-type: none"> <li>• <b>~300 servers</b></li> <li>• different vendors, operating systems, configurations</li> </ul> <p><b>Hundreds of system interfaces</b></p> <p>Databases and data:</p> <ul style="list-style-type: none"> <li>• managed by <b>shadow IT groups</b></li> <li>• No high-availability, redundancy</li> </ul> <p><b>Ad-hoc systems architecture</b> – no global approach or consistency</p> <p>Data centers lacking power, capacity and inadequate climate controls</p> <p><b>ERS out of date/spec</b></p>
<b>Change Needed:</b>	<ul style="list-style-type: none"> <li>• Develop / hire leaders</li> <li>• Align IS to business processes and priorities</li> <li>• Develop IS strategy and governance process</li> <li>• Improve communications</li> </ul>	<ul style="list-style-type: none"> <li>• Developed delivery, support and maintenance processes</li> <li>• Created service desk</li> <li>• Created governance processes</li> </ul>	<ul style="list-style-type: none"> <li>• Implemented EBS</li> <li>• Implemented GTR</li> <li>• Centralize and consolidate ownership and support of infrastructure</li> <li>• Began overhaul projects</li> </ul>



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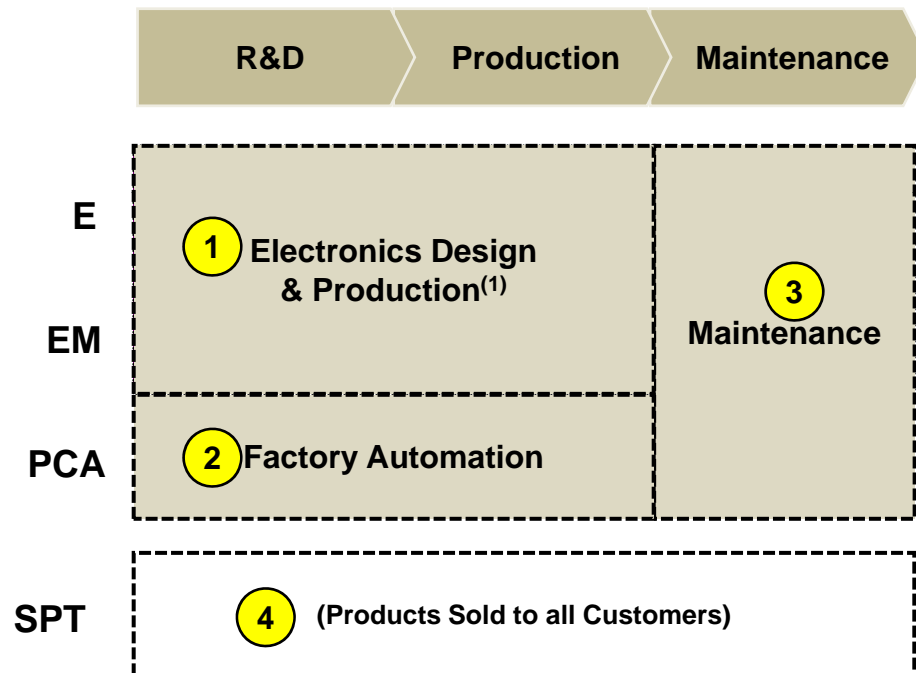
# WHERE ARE WE TODAY?



# Our strategy is to become the world's distributor of choice for electronics design and production

## Customer Segmentation

## Strategy



Become the world's distributor of choice for the Electronics Design & Production customer segment (EEM) **1**

Protect and grow established positions in other segments

- Grow Factory Automation (PCA) **2**
- Protect Maintenance business (EEM and PCA) **3**

Leverage common infrastructure and synergies between customer segments

- Maximise return on support and pull-through products (SPT) **4**

(1) Pre- and low-volume production

## Of course, this means that there are clear implications on IS:

- **Strategic:**
  - EEM drives an **increase in range** of stocked and non-stocked articles (250,000+ “virtual” articles already)
  - Article lifecycle and product introduction processes become even more critical:
    - **Product introduction processes must become fast and efficient**, and systems move from disconnected silos to on-demand publishing to any channel, any time.
  - Increased integration with customers and suppliers:
    - **E-procurement** demands increase, and must be faster, less painful to adopt
    - Suppliers are demanding visibility and “**Instant NPI**”
- **Financial:** While this year is one of aggressive change,
  - Costs and investments in future years must meet Group targets and commitments to the City
  - But this must not affect our ability to support change or our service levels

## What does this mean in practice?

- Significantly larger amounts of data:
  - moving around much faster
  - in a more robust manner
  - across regions and systems
  - inside and outside RS.
- Removal of “batch” processing into online, real-time updates
- Requiring seamless integration between systems
- Fast and responsive Governance and change procedures, not dependent upon niche and specialised resource.
- No system adventures or big-bang projects...

# While the SAP rollout has provided a solid foundation...

## Taking us from:

- OpCo specific platforms with limited communication and no real interaction.
- Processes and capabilities had to be re-invented in each location, with local prioritisation

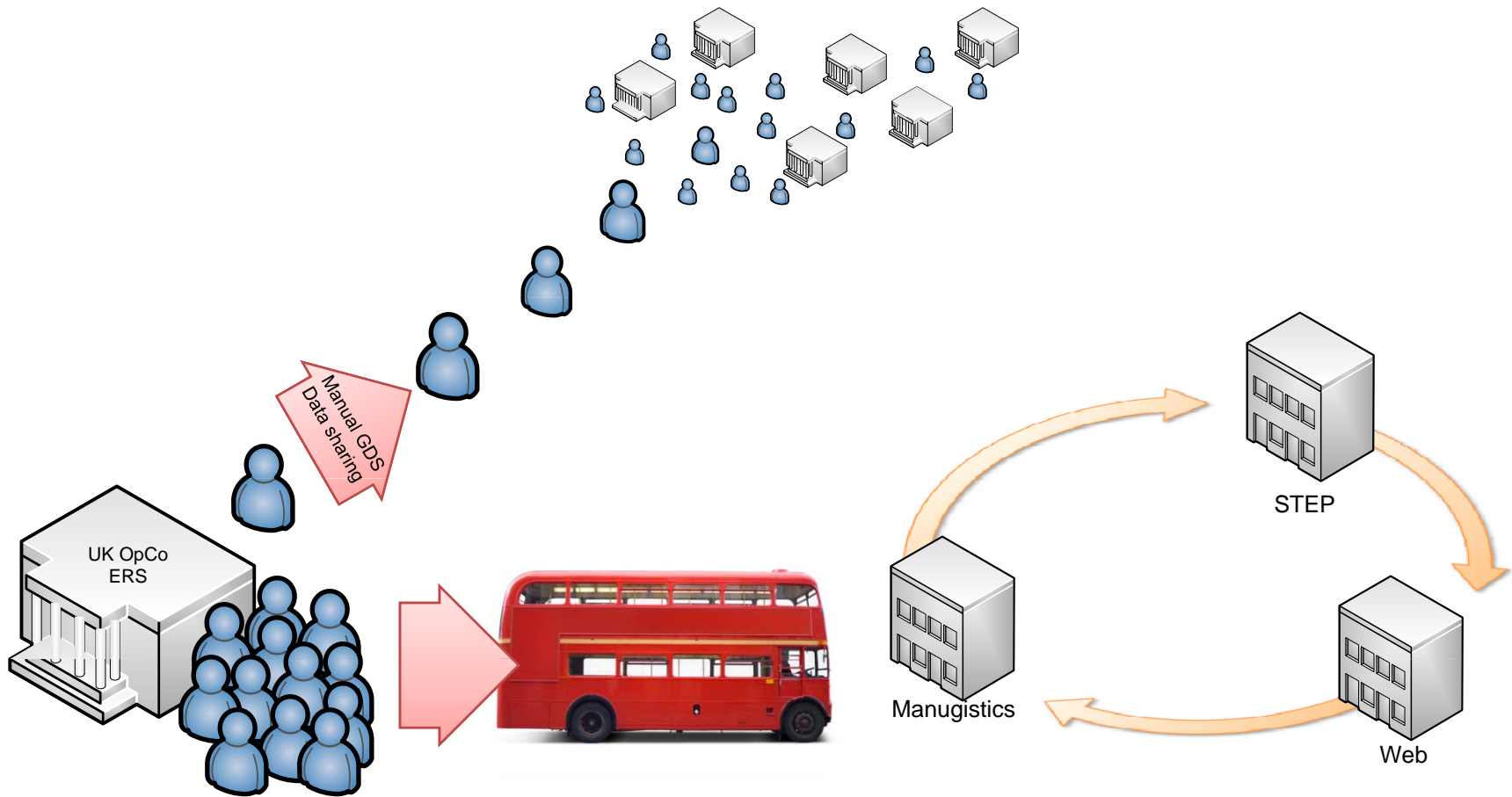
## And into a world where:

- We have three regional platforms  
(SAP in Europe, JDE in Asia, bespoke VaxVMS in US)
- With improved integration, allowing:
  - Cross-OpCo product leveling
  - Improved stock visibility
  - Master data sharing
  - Consistency
  - Standardising order to cash and procure to pay processes

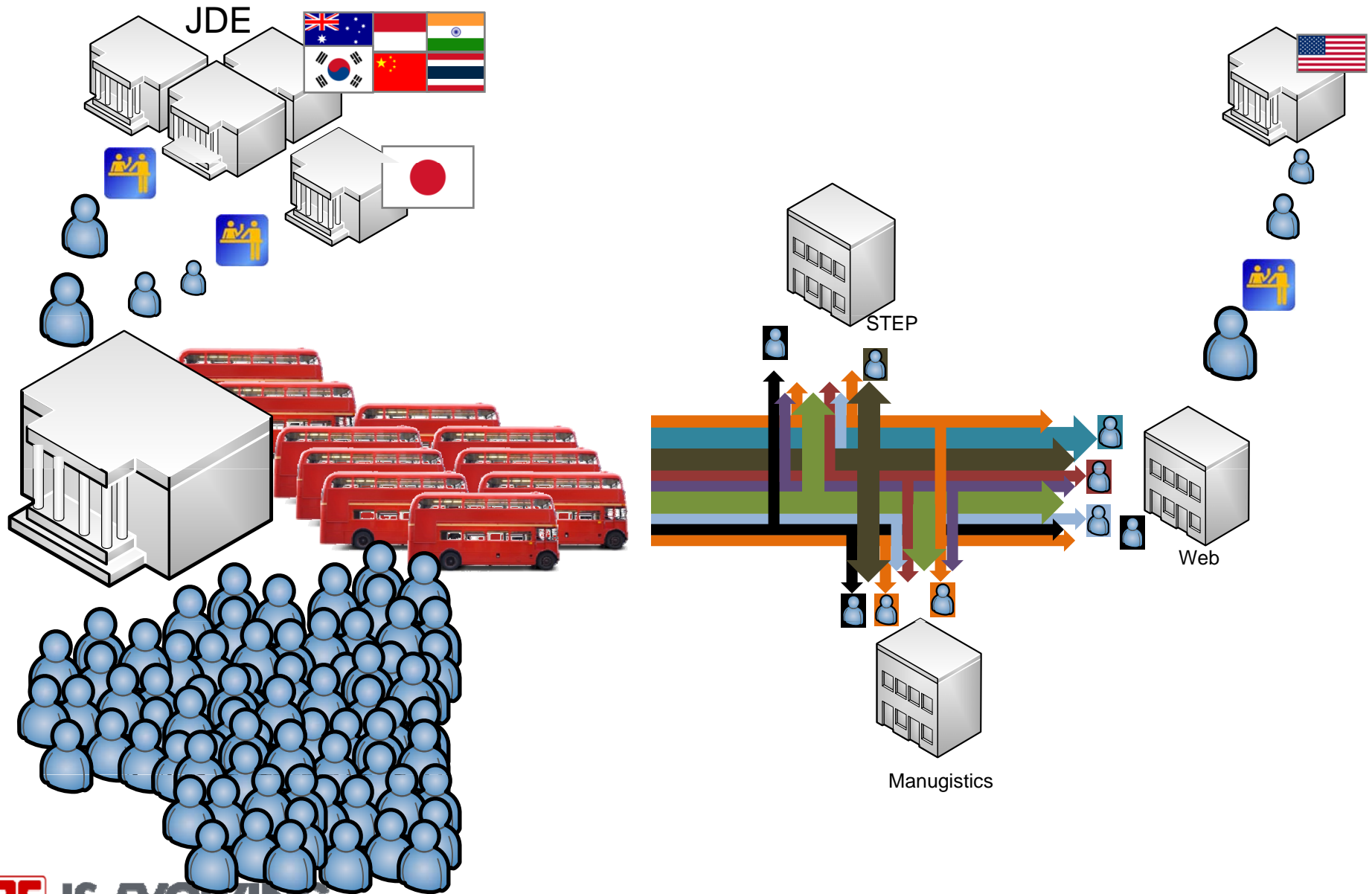
## ...facts on the ground tell us our journey is not yet over.

- We've inherited a pre-SAP data structure → no single source of truth
  - Product management remains manual, challenging and complex
  - Several versions of data exist in various systems
  - Heavily dependent on assortment list to feed satellites
  - Moving data often requires manual refreshes, so constant contention and resource/priority conflicts
- Product data and pricing depends on Excel as middleware
- Processes depend on a cascade of independent applications, so the end-to-end system is fragile and heavily reliant on manual activity, driving headcount and inefficiencies, impact service:  
(eg: AVT→SUCRE→Quadrant→SAP→Assortment List→STEP→Web)
- **Change is complex and risky, and so expensive and slow**

# Pre-SAP: no integration, isolated OpCos



# Situation today: integrated but overloaded & fragile



# In short, we have an IT sausage machine, and rework the output to make hamburgers.

- Works well enough for our order to cash and procure to pay processes (with performance/stability issues related to the bespoke code)
- Little benefit to Sales & Marketing or Operations & Product Management processes
- It's messy and unhealthy





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**WHERE ARE WE GOING?**

# Our eEvolution is guided by a clear set of principles

## **Everything will be online:**

- Available to anyone, anywhere, any time, using any device

## **Change will be fast and cheap:**

- Services will auto-configure/provision
- Quickly assemble new applications/composite services
- Standard, tried and tested and out-of-the-box
- Customisation is tightly controlled, but where done, do it once

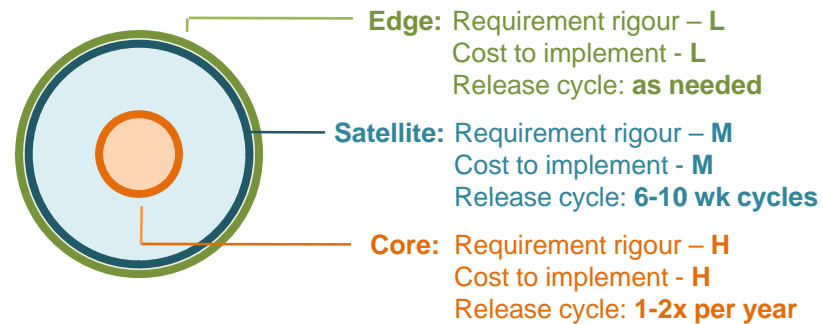
## **Everything will be shareable and reusable:**

- Reuse existing assets, and make more efficient use of them
- Drive process automation
- Drive efficiencies and cost out of the business

We will focus on the things we do well and have **trusted partners** do everything else

# With clear plans to evolve IS systems landscape to drive rapid change while prolonging existing investments...

**Evolve IS landscape into Core, Satellite and Edge tiers:** to scale requirement/development/cost/testing rigour across the tiers to increase speed of delivery.



**Investments in middleware reduce cost of change by reusing capability:** and will create the Tiers to decoupling today's bespoke integration. Change to non-critical systems happens in a faster, less traumatic fashion.

**Standardise the Core and ring-fence via middleware:** remove performance-impacting bespoke code from SAP and JDE, and add new functionality via SOA/middleware services. Allows us to postpone an SAP upgrade/rollout, and defray the capital costs to FY11.

# So, firstly: upgrading our middleware to an on-demand service model delivers tremendous benefits

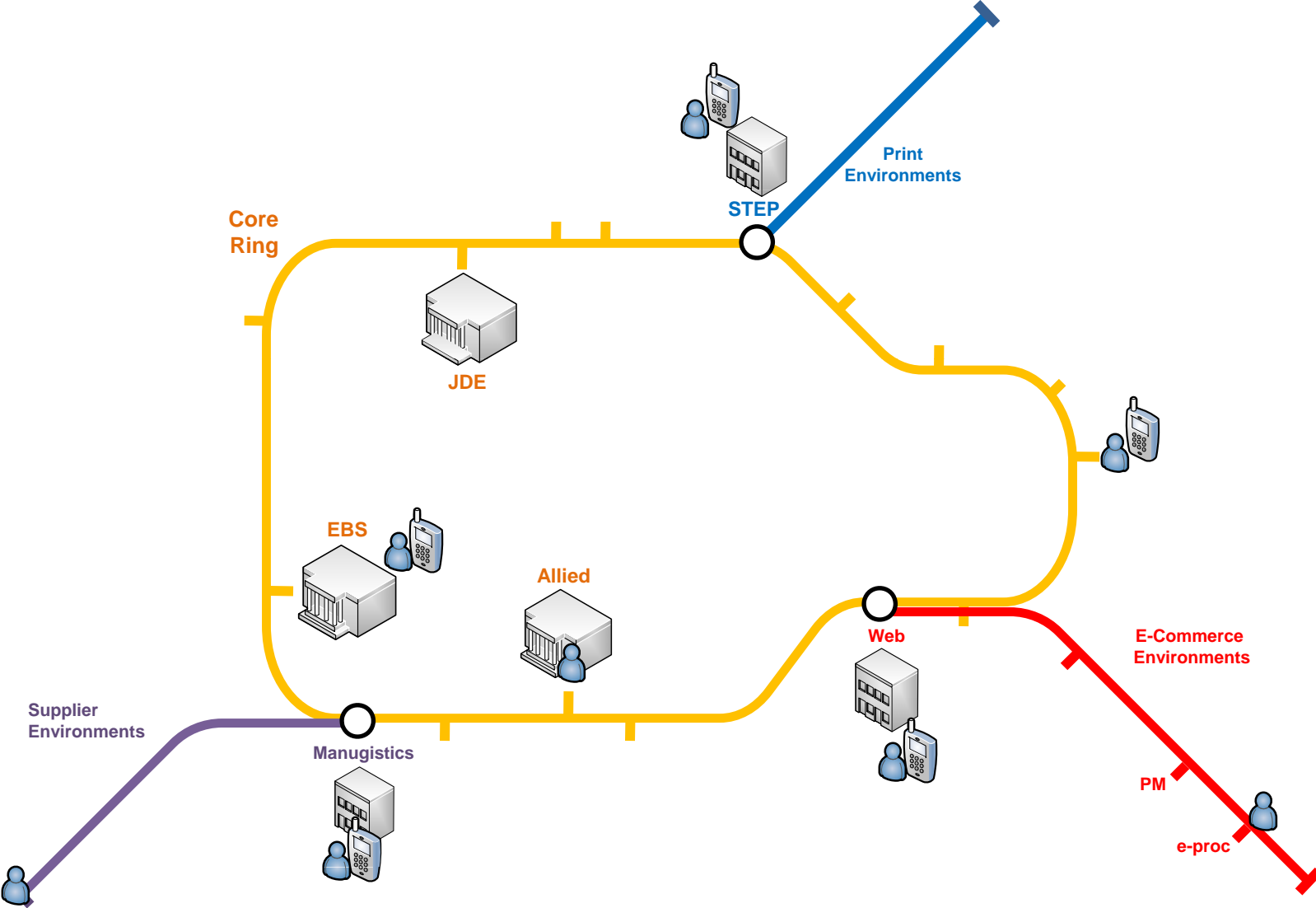
We're using SOA/middleware as a philosophy to enable our transition to an E-Business and increase change capacity at reduced costs, by:

1. Improving **business processes**:
  - Get better at business as usual (Rapid NPI & NPI workflow, etc)
  - Increase capacity for process change
2. Focuses IT on **users and simplicity**:
  - reduce training costs with simpler user interfaces
  - reduce productivity hit from complex interfaces
3. **Leveraging investments** in existing systems:
  - Unlock data, and automate sharing
  - Abstract away dependence on legacy ERP systems
4. Supporting growth **without changes in architecture or upgrades**
5. Supporting changes **despite investment freezes** or budget constraints.

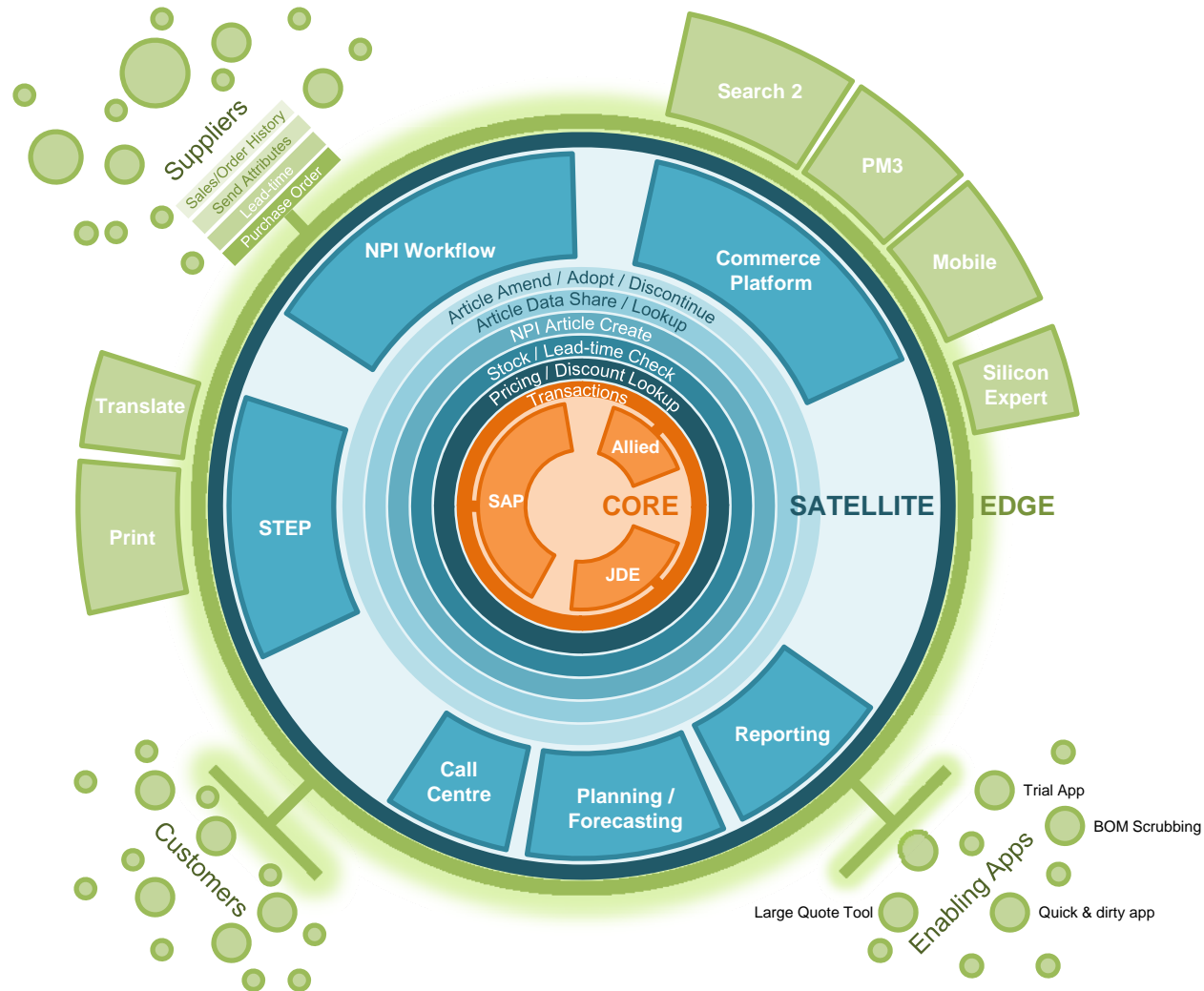
## This means our Core systems portfolio is protected...

- Upgrade schedule and migration is a business-driven decision, not weighted by technical concerns
- 2007 and 2008 can remain focused on:
  - Service delivery and process improvements
  - SAP stabilisation and “vanilla-isation”
- Once new business processes are stable in support of the strategy, we can begin blueprinting in 2009 on the new business model

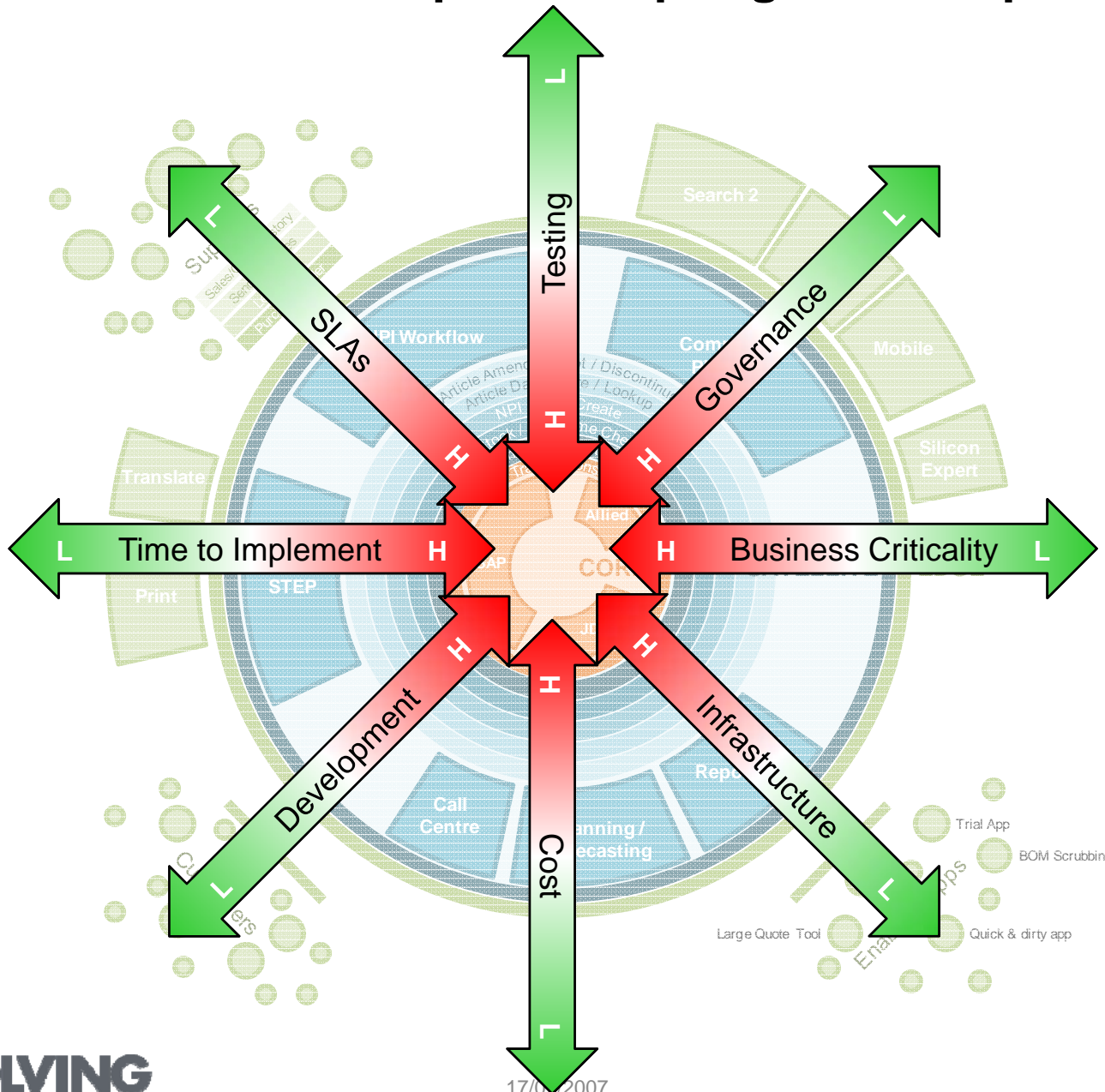
# Continuing the analogy: delivered via “the Circle Line”...



# Which is a decoupled and ring-fenced environment...



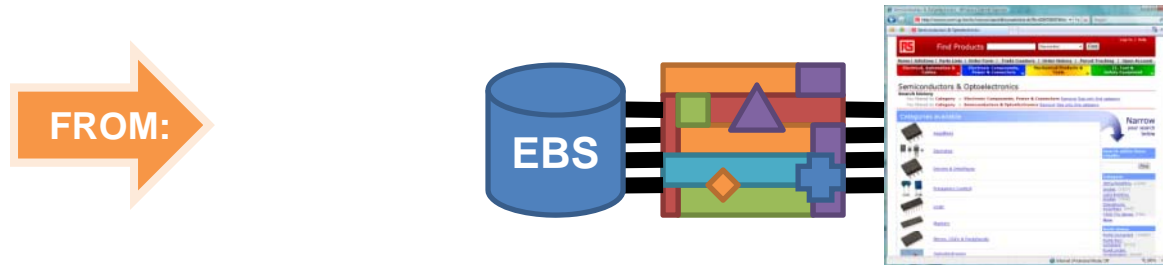
...with a tiered landscape to adapt rigour to requirements



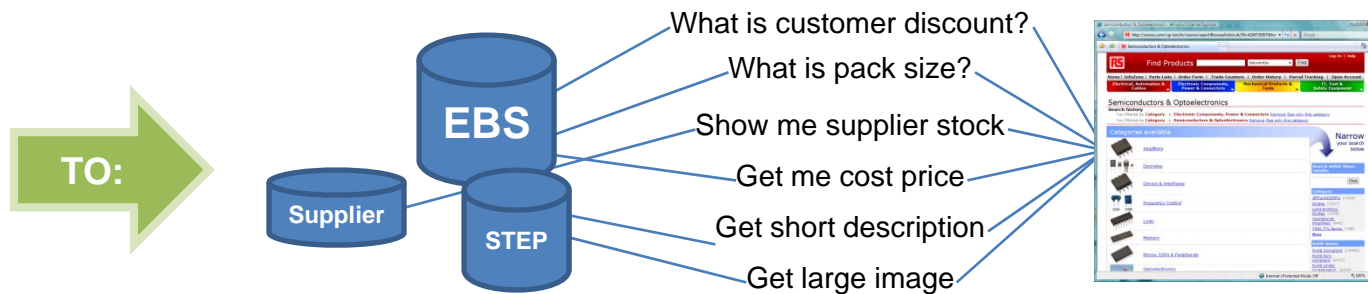


# So IS capabilities are now on-demand services...

Today, new business requirements require lengthy, heavy modifications to a tightly integrated SAP template, with complex access to Satellite/Edge systems:



Expose the SAP interfaces as reusable services that can be woven into applications as needed:

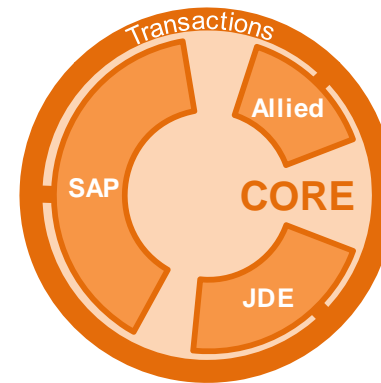


These services can be combined, configured, and reused to rapidly respond to changing business requirements. Behind the scenes, the SOA Halos connect to the relevant data source(s).

...that extend the life of current investments...

**Ring-fences the heterogeneous ERP environments:**

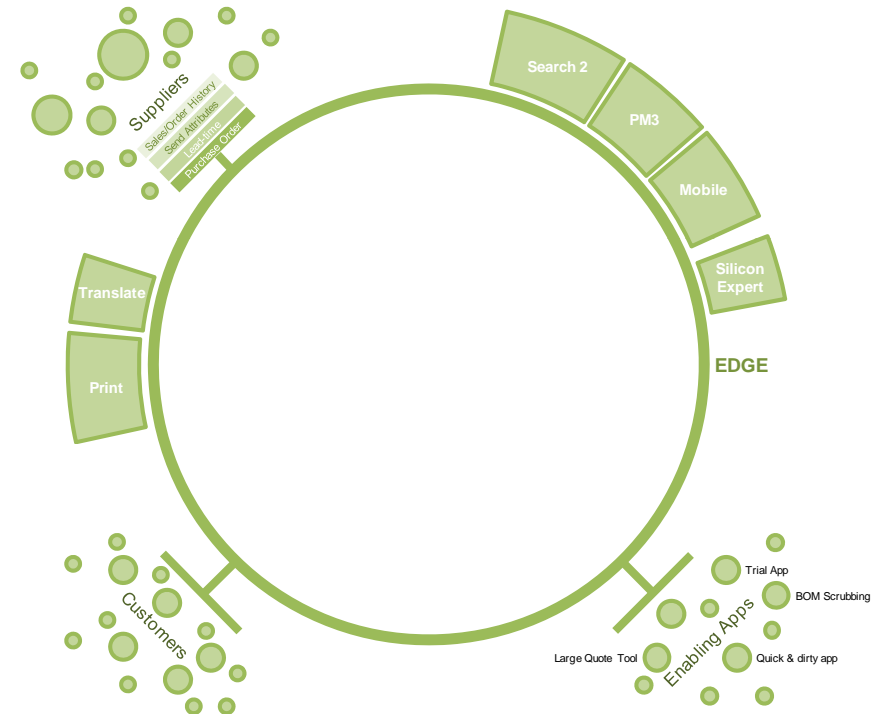
- Prolongs the life of engine-room systems
- Separates front- and back-ends: looks like a single, integrated environment to systems outside the Core
- Future upgrades (or even swapouts) can occur with minimal impact to people, processes and systems.



...and allow changes to be delivered far quicker.

### Increased Change Capacity:

- Faster to build, cheaper to maintain
- Services are on-demand, and designed around a single set of data or process
- Applications bundle relevant services 'a-la-carte'
- Each is independent of the other, but reuse the same services
- Enables real-time supplier, customer and edge access with little integration effort.



# Which means that releases can be interleaved:

## Major releases:

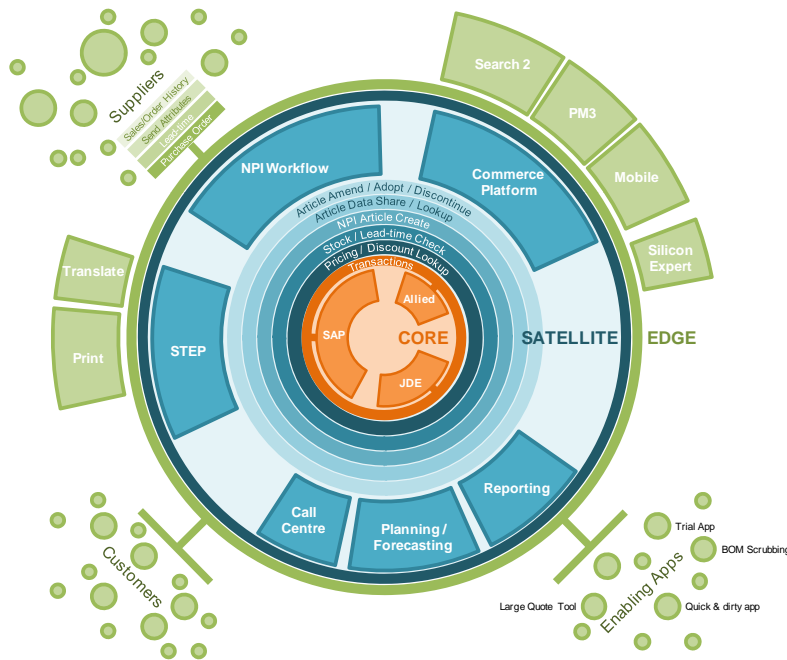
- Requires significant resources for build, testing & training
- Changes to Core systems, some aspects of Satellite systems and to the middleware halo fabric
- Typically 1x to 2x per year

## Minor releases:

- Minimal cross-system alignment, testing & training
- Changes to Satellite systems and to some aspects of Edge applications.
- Typically occur every 8-10 weeks

## Independent releases to handle small changes, faster

- Testing or training limited to a single application.
- May also apply where technical or business impact is limited to one application.
- Released as needed



# Driving real benefits

Drive additional value from existing assets:

- Increase utilisation levels within infrastructure
- Free up 'spare' capacity to be used in resource pools
- Capacity added as required rather than provisioned and paid up front
- Tier service levels to manage infrastructure costs →

Increase speed of change, agility:

- Improve system provisioning from weeks to hours
- Solutions and Service based upon known, agreed commitments between IT and the business.

