Chapter-02

ERP Implementation: Life Cycle, Methodologies and Strategy

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ERP Life Cycle

ERP Life Cycle

- ERP implementation life cycle includes all the activities needed in an ERP project.

- While these activities need to be undertaken in a particular sequence, some of them can be carried out parallely.

- Activities during ERP implementation can be divided into different phases.

Continue.. (ERP Life Cycle)

- Name of these phases differ as per implementation methodology selected.

- For ex, leading ERP vendor SAP's implementation methodology ASAP (accelerator SAP) divides the entire ERP project implementation into 5 different phases know as :
  ◦ Project preparation,
  ◦ Business blueprinting,
  ◦ Realization,
  ◦ Final preparation and go live, and
  ◦ support

Continue.. (ERP Life Cycle)

- One more phase is needed before the project preparation known as pre-implementation which details some of the activities needed even before the project starts.

- Some consulting companies name business blueprinting phase as "Design phase", Realization phase as "build phase" and support phase as "manage phase".

- For ex, leading ERP consulting company, IBM, has an ERP implementation methodology called "Ascendant" in which pre-implementation phase is called "Evaluation phase" and support phase is known as "Sustain phase".

Continue.. (ERP Life Cycle)

▶ So, as per different methodologies of different ERP vendors, the name of these six phases may differ a bit, but the activities in each phase is almost same for any ERP implementation.

Continue.. (ERP Life Cycle)
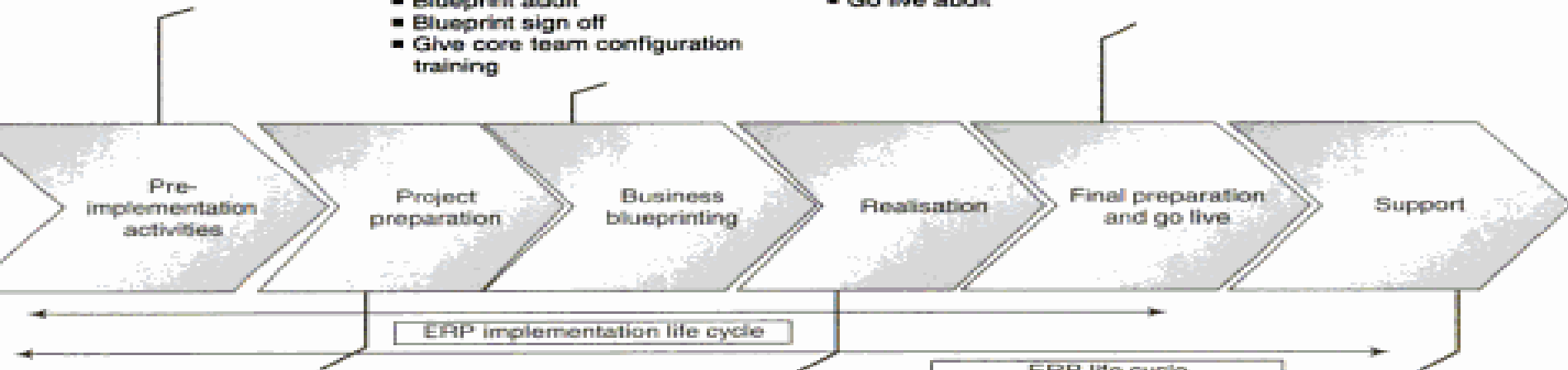
- ERP life cycle consists of both implementation and support activities.

- ERP life cycle = ERP implementation life cycle (activities during ERP implementation project)

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ERP support life cycle (activities during ERP support)

Business case/feasibility study
Getting budget
High level requirement definition
High level scope definition
Request for proposal (RFP) for partner and package selection
Package selection
Selection of consulting partner

- Modelling high level AS IS process
- Detailed requirement definition (Pain points, improvement areas)
- BPR and process redesign
- Detailed TO BE modelling, TO BE process documents
- Identify gaps
- Define roles/authorisations
- Blueprint audit
- Blueprint sign off
- Give core team configuration training

- Stress and volume testing
- End user acceptance testing and sign off
- Conducting end user training
- Data migration and migrating open items
- Cut over planning and go live checklist
- Help desk support finalisation
- Closing open project issues
- Pre-go live audit
- Go live audit

Pre-implementation activities → **Project preparation** → **Business blueprinting** → **Realisation** → **Final preparation and go live** → **Support**

ERP implementation life cycle

ERP life cycle

Project team selection, organisation structure
Project methods, standards formulation
Finalize implementation strategy
Project planning
Detailed project scoping
Project charter
Project kick off meeting
Technical preparation
Training (ERP process training to core team, overview training to stakeholders)

- Configuration/customisation
- Unit testing
- Integration testing
- Developments for gaps
- End user training content preparation
- Integration test sign off

- Knowledge Transfer to support team
- Transition – Document open issues
- Regular support, monitoring SLAs
- Measuring performance improvement
- Upgrading

Two activities run across all phases
- Organisational change management
- Project management

ERP LIFE CYCLE PHASES:

- Pre-implementation activities
- Project preparation
- Business blueprinting
- Realization
- Final preparation and go live
- support

1. Pre-implementation activities

Introduction

▸ ERP implementation is a big investment for any company both in terms of time and cost.

▸ The phase in which planning activities are undertaken before actual implementation is called "Pre-implementation".

▸ Planning complexities may differ from one organization to another, based on size of organization.

▸ But the major activities in this phase are almost same for all organization.

Pre-implementation Phase-Activities

Line No.	Activity	Sequence No.
1	Have a crack team in place (for few initial steps in ERP journey)	1
2	Feasibility study / ROI analysis / Business case	2
3	Getting budget for ERP implementation	3
4	High level requirement definition, prioritisation of requirements	4
5	High level scope definition	4
6	Request for proposal (RFP) for implementation partner selection	5
7	Evaluation and selection of consulting partner for implementation – Contract with consulting partner	6
8	RFP for package selection	7
9	Evaluation and selection of ERP package–Contract with package vendor	8

1. Having a Team in place

- First step is to identify a person or a small crack team of fairly senior people in the organization who will lead during the first few steps of the company's ERP journey.

- The core team will decide:
  - Necessary budget approval,
  - Selecting the consultant partner,
  - Identifying the business requirements for company at high level, etc.

2. Feasibility study/ ROI analysis/ Business case

- This involves getting the approximate cost and projected benefits calculated by deploying ERP.

- This needs to be quantified, i.e. saving need to be projected in Rs. With solid justification to convince top management to make an investment.

3. Getting Budget for ERP implementation

▸ The next important activity is to get the budget approved for the project from senior management, based on the cost and benefit projections.

▸ Sometimes budget approval is a lengthy process running into several months.

4. High level requirement definition, prioritisation of requirements

▸ Next step is to identify a complete list of requirements and expectations from an ERP system.

▸ This activity can be done by an internal team and, in some cases, the company can engage an external consulting team to do this.

5. High level scope definition

▸ This step defines:
- where to implement ERP and where not to,
- which process should be taken and which should not be, and
- Which modules are relevant and which are not, etc.

6. RFP for selection of implementation partner and evaluation and selection of consulting partner

- This step involves request for proposal (RFP) for selection of implementation partners, and evaluation and selection of consulting partner as well as contract with consulting partner.

- RFPs are released to different consulting companies to submit quotation giving list of requirements and scope.

- The responses are evaluated on different criteria and finally consulting partner will be selected and company enters in contract with them.

7. RFP for evaluation and selection of package

- These are activities related to releasing RFPs to different vendors to submit quotation giving a list of business requirements.

- The responses are evaluated based on different criteria.

- Finally the package is selected.

- And then company enters into contract with that ERP package vendor. (selection process in Chap 5)

Number of activities and their sequence may change depending on the type of project

- It's not mandatory that a company need to follow the same steps and same sequence of activities.

- For some instances like:
  - A company may decide it will get its ERP implementation done by a group company and do not need a partner selection part (for ex, TATA group company decided to engage TCS for its ERP implementation)
  - Few companies may skip package selection. For ex, company may decide to go for SAP without doing any package evaluation and selection.

Pre-implementation Phase-Critical Deliverables

- Deliverable is a term used in project management to describe a tangible or intangible object produced as a result of the project that is intended to be delivered to a customer (either internal or external).

- A deliverable could be a report, a document, a server upgrade or any other building block of an overall project.

- pre-implementation phase need to have a set of deliverables from the core team and the consulting team (if they are engaged for this) to help the company during this phase.

Continue…

- Some of the critical deliverables of this stage are:
  - Business case / ROI justification
  - High level requirement document
  - High level scope document
  - RFP for consulting partner selection (optional)
  - RFP for vendor selection (optional)
  - Contract with consulting partner
  - Contract with ERP package vendor

Pre-implementation Phase-major milestones

- A deliverable differs from a project milestone in that a milestone is a measurement of progress toward an outcome whereas the deliverable is the result of the process. For a typical project, a milestone might be the completion of a product design while the deliverable might be the technical diagram of the product.

- **Major milestones** of project preparation stage are:
  - Acceptance of business case by senior management of company and sanctioning budget for the project,
  - Identification of high level scope and requirements,
  - Release of RFP for Consulting partner and ERP vendor,
  - Completion of contract procedures for consulting partner and ERP vendor.

2.   Project Preparation Phase

Introduction

- The purpose of this phase is to provide detailed initial project planning and preparation for the project.

- This is a critical stage of the project and the project success depends much on right performance of certain step at this step.

Project Preparation Phase Activities

Line No.	Activity	Sequence No
1	Project team selection (core team and consultants)	1
2	Detailed project scoping	2
3	Project vision/mission statement creation	2
4	Deciding implementation strategy, methodology to follow	2
5	Finalising project methods, standards and governance	2
6	Technical preparation	2
7	Project planning, resource planning, training planning	3
8	Project charter preparation	4
9	Conducting project kick off meeting	5
10	ERP overview training to senior management, ERP process training to core team	6

Continue..

- **Project team selection** (Core team and consultants): this activity involves selection of company's own people for the core team and selection of consultants.

- **Detailed project scoping**: this relates to identification of detailed scope like location, business, process, application, interface, reports, technology, etc.

- **Project vision/mission statement**: long term vision and mission

- **Deciding implementation strategy, methodology to follow**: deciding methodology like SAP'S ASAP or IBM's Ascendant

Continue..

- **Finalizing project methods, standards and governance:** process needs to be established so that could be used by all project team during project.

- **Technical preparation:** this activity includes preparing architecture, hardware size, etc.

- **Project planning, resource planning, training planning:** planning for entire project, activities, resource and about to give high level training.

- **Project charter preparation:** charter is document that details project mission and vision, scope, project plan, team details, constraints, etc.

Continue..

- **Consulting project kick off meeting:** project kick off meeting is a formal meeting to launch the project where the project charter is presented and team is introduced.

- **ERP overview training to Senior Management, ERP process training to Core Team:** High level ERP training overview explaining to senior management, detailed training for the core team.

Project preparation phase – critical deliverables

- Detailed project scope document
- Project vision and mission statement
- Technical architecture document
- Hardware sizing document
- Training plan
- Project charter

Project preparation phase – major milestones

- Signing off the detailed project scope by the project sponsors;
- Staffing the project team to support the business blueprint phase;
- Completing project strategy
- Holding the kick-off meeting;
- Putting the steering committee and project team in place.

3. Business Blueprinting Phase

Introduction

- The purpose of the blueprinting or Design phase is to have detailed initial project planning and make preparations for the project.

- The document prepared in this phase describes in detail company's business function and define technical requirements to enable those functions.

Business blueprinting phase activities

Line No	Activity	Sequence No
1	High level process modelling of AS IS process	1
2	Developing detailed requirement definition (conducting workshops, knowing pain points, current process improvement areas)	2
3	Business process reengineering	3
4	Detailed process modelling of TO BE process, design process steps	4
5	Gap identification and analysis, and strategy to bridge the gap	5
6	User authorisation, roles and security planning	5
7	Blueprint audit by external team	6
8	Getting blueprint signed off	7
9	ERP configuration training to the core team	8

Business Blueprinting phase – critical deliverables

▸ Business blueprinting phase need to have a set of deliverables from the core team.

- ◦ AS IS Model (high level)
- ◦ Detailed requirement document
- ◦ TO BE process definition document
- ◦ Gap document
- ◦ Authorization plan

Business Blueprinting phase – major milestones

- Signing off the business blueprint document by the project sponsors
- Freezing the business requirements,
- Agreeing jointly to the gap document by company and the consulting team,
- Completion of the authorization plan,
- Completion of blueprint audit.

4. Realization Phase

Introduction

- The purpose of realization phase is to build the system through configuration and its development of the business and process requirements documented in the business design/blueprinting.

- The main purpose is to verify that the system is complete, stable and ready for being transferred into production.

- Realization, therefore involves:
  ◦ Designing,
  ◦ Building and testing the solution, and
  ◦ Making it ready for production.

Realisation Phase activities

Line No	Activity	Sequence No
1	Configuration/Customisation	1
2	Unit and integration testing	1
3	Developments for gaps	1
4	End user training plan	2
5	Integration test sign off	2

Basic Description of Activities

- **Configuration/Customization:** Its important activity to make the ERP system suit business requirements of the company.

- **Unit and Integration Testing:** The system need to be thoroughly tested before handing over to the users.

- **Developments for gaps:** meeting the gaps and build the required functionality.

- **End user training plan:** this involves planning and preparation of training modules, location of trainers, fixing training schedules, venue for trainings, etc.

- **Integration test sign off:** this means integration is completed as per the satisfaction of the company. This is major milestone for the project.

Realization phase – critical deliverables

- Realization phase need to have a set of deliverables from the core team.
  - Configuration document
  - Test strategy and test plan
  - Unit test document
  - Functional and technical specification
  - End user training materials
  - Integration test sign off scripts

Realization phase – major milestones

- Completion of all configurations
- Completion of all developments
- Completion of all unit and integration testing
- Signing off integration test by business
- Completion of end user training content development

5.   Final Preparation and Go Live Phase

Introduction

▸ Realization phase is followed by final preparation and go live phase.

▸ Purpose of this phase is to make system ready for the final day of Go Live.

▸ On successful completion of this phase, the company is ready to run its business in the new productive ERP system.

Final preparation and Go Live Phase activities

Line No	Activity	Sequence No
1	Stress and volume testing	1
2	User acceptance testing and user sign off	2
3	Conducting end user training	3
4	Data migration—Migrating open items	3
5	Cut over planning—Preparing Go Live checklist	3
6	Help desk support finalisation	3
7	Closing open project issues	3
8	Pre-Go Live audit by an external team	4
9	Going Live	5

Final preparation and go live phase – critical deliverables

▶ This phase need to have a set of deliverables from the core team.

- ◦ End user acceptance testing document
- ◦ Stress and volume test result
- ◦ Cut over plan
- ◦ Go live checklist
- ◦ Help desk support plan
- ◦ List of open project issue
- ◦ Go live audit report

Final preparation and go live phase– major milestones

- Satisfactory stress and volume testing results
- Completion of data migration
- Completion of cut over planning
- Completion of all activities as per the checklist
- Closing all critical open issues
- Submission of satisfactory go live audit report
- Going live with new system

6. Support Phase

Introduction

▸ This phase supports the ERP implementation and evaluates its upgradation to the next version.

Support Phase activities

Line No.	Activity	Sequence No.
1	Knowledge transfer to support team	1
2	Transition of project documents and open issues	1
3	Regular support, monitoring service level agreements (SLAs)	2
4	Measuring performance improvement	2
5	Upgrading to next version of ERP	3

Support phase – critical deliverables

- This phase need to have a set of deliverables from the core team.
  - Transaction checklist
  - SLA (service level agreement) contracts
  - SLA performance report

Support phase– major milestones

- Successful completion of transition;
- Initiation of SLA monitoring

Methodology for Implementation

Introduction

- ERP implementation needs a set of steps to be done in a particular sequence.
- So a scientific approach towards this helps in making implementation success.
- Implementation methodologies:
  - ASAP (Accelerated SAP) : leading ERP solution provider SAP developed and can be used for implementing any SAP's solution (like: SAP ERP, SAP CRM, SAP SCM, etc.)
  - Ascendant Methodology: leading consulting company, first developed by PriceWaterHouseCoopers (PWC) and later adopted by IBM (after PWC take over).

1. Methodology from ERP Vendor: ASAP from SAP

- Main objectives of ASAP:
  - Implement SAP solutions in a quick and cost effective manner.
  - Maximize the utilization of resources.
  - Incorporate process oriented approach.
  - Involve the user community.
  - Use it as a repeatable "model" with other implementations of SAP.

ASAP Roadmap
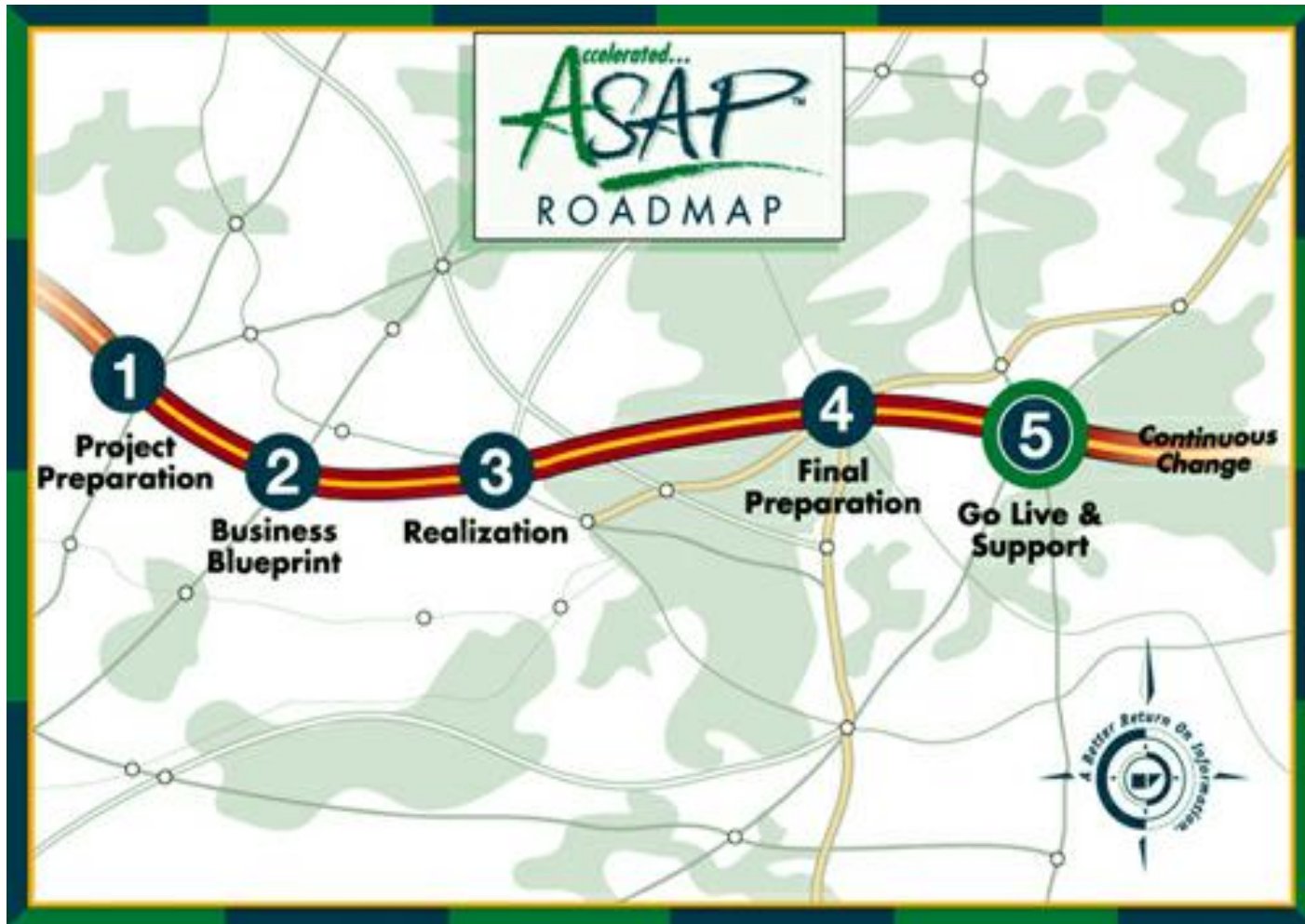
Phases in ASAP

▸ ASAP divides any SAP implementation in five Phases.

▸ These are:
- Project preparation (provide initial planning and preparation for SAP project)
- Business Blueprint (achieve common understanding of how company intends to run business within SAP system.)
- Realization (build solution based on requirements)
- Final preparation (complete final preparation including testing, training, system management, cut-over activity)
- Go live and Support (move from project-oriented, pre-production environment to live production operation)

Tools in ASAP

- Implementation Assistant
  - Roadmaps – steps to complete project
  - Knowledge corner – library of reference material that helps in implementation.
- Q&A database:
  - Setting the project scope
  - Document business requirements
  - Helps in creating blueprint
- Project IMG – helps in customizing application
- BC sets – helps in recording configurations so that these can be reused in other implementation

2. Methodology from Consulting Company: Ascendant from PWC IBM

▸ IBM's Ascendant methodology is based on SAP's ASAP methodology.

▸ This defines an integrated programme method that focuses on six key areas:

- ◦ Project management
- ◦ Business
- ◦ Organization
- ◦ Application
- ◦ Architecture
- ◦ operations

Ascendant Roadmap
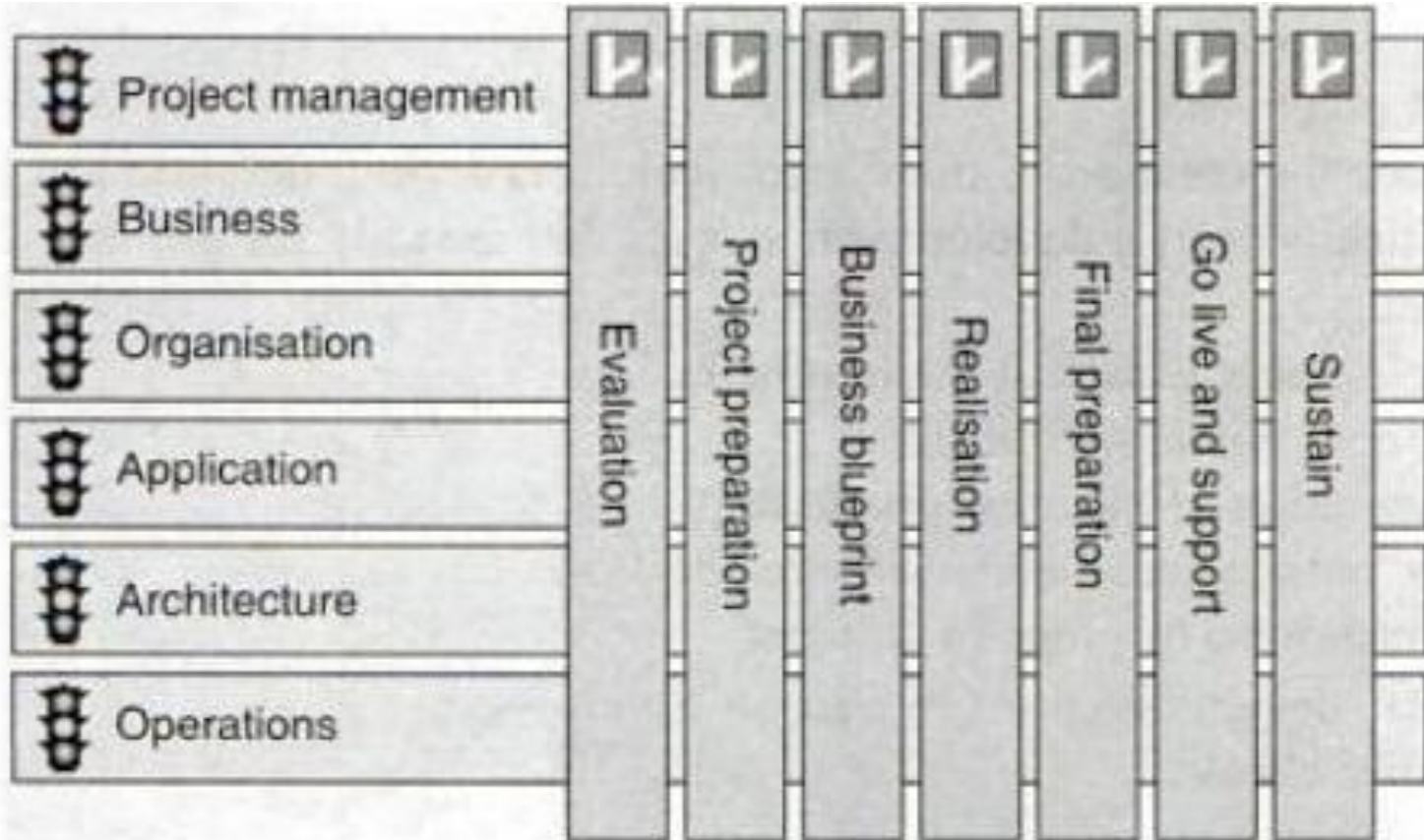
Continue.. (Ascendant)

▸ Each component of integrated programme consist of a work stream of activities which are mapped across all key phases.

▸ Phases in Ascendant
  ◦ Evaluation
  ◦ Project preparation
  ◦ Business blueprint
  ◦ Realization
  ◦ Final preparation
  ◦ Go live
  ◦ Sustain

Different Methodology for Different types of ERP projects

▸ ERP projects are of different type like:
  ◦ ERP implementation project: a company first time implementing one ERP solution.
  ◦ ERP migration projects: a company already having one ERP and replacing it with another. For ex, Oracle ERP is getting replaced by SAP.
  ◦ ERP upgrade projects: Existing ERP customers need to upgrade to newer version of ERP for better functions.
  ◦ ERP global rollout projects: had already implemented ERP for one location and now rolling it out in other location.

Global Template Concept

Global and Local Elements
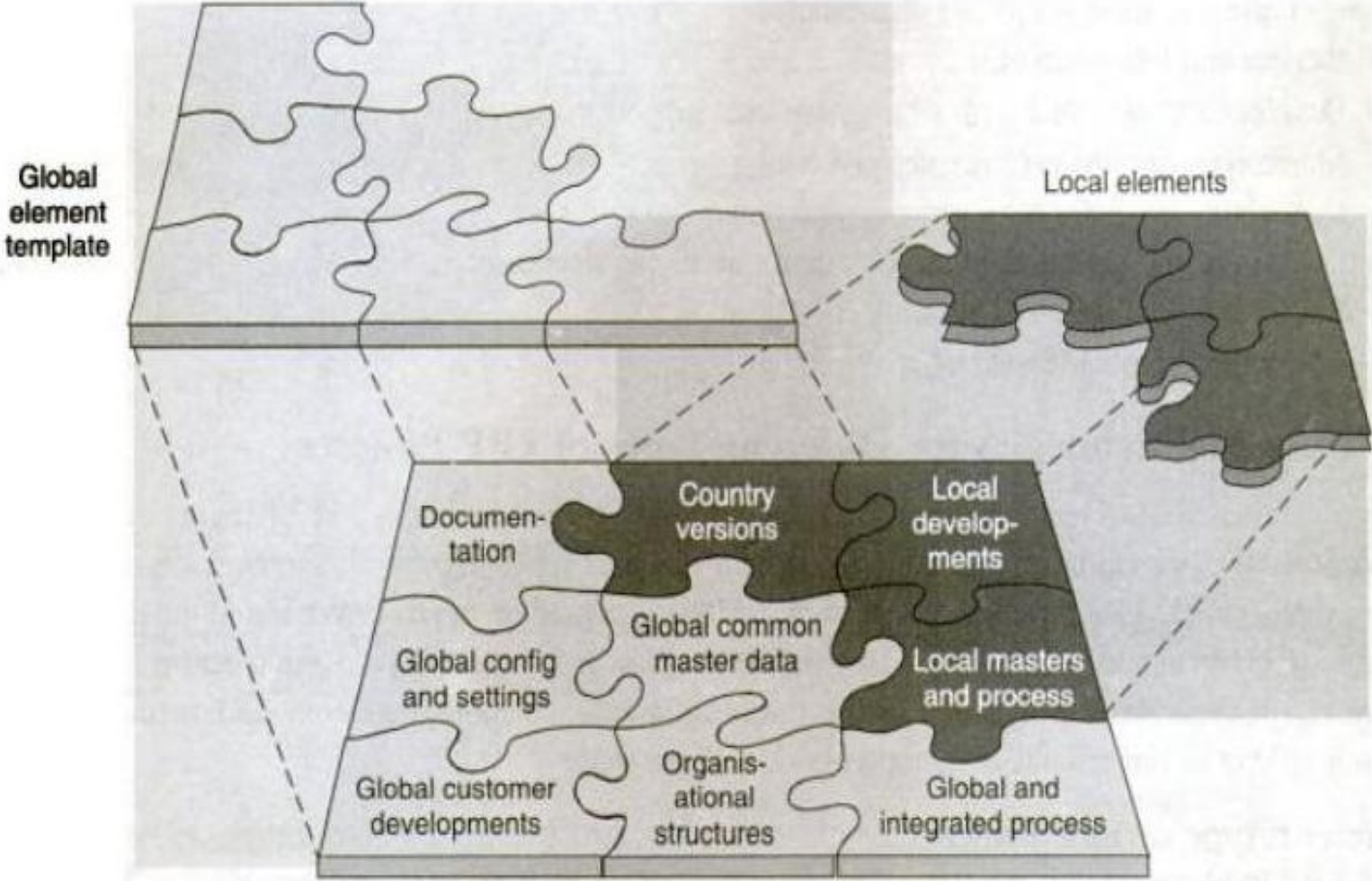
ERP implementation Methodology for Small and Medium Business

- **Pre-configured template:** has a reference set of blueprint documents, recorded configuration, master data formats helps in speedy implementation.

- **Separate Solutions of SMB segment:** targeting different solutions. For ex, SAP has two different solutions – "all in one" for middle industry and "Business One" for small industry.

- **Fast Forward Implementation Methodologies:** come up with new implementation methodologies for targeting segment. For ex, IBM come up with another version of Ascendant known as Ascendant Express

Pre-configured Industry Template

Industry Template for SMB clients:

- Accelerated method for implementing ERP
- Pre-loaded business content, tools, and documentation
- Reduced installation time with Automated pre-configuration tools
- Master Data is loaded. Master data can be quickly created with standard templates
- Extensive documentation provided for all functionalities and best practices)

✓ Business scenarios & process flows
✓ Business process procedures
✓ Configuration-guides
✓ Test scripts

Industry template - industry XXX

What it contains

Business content
- Solutions, scenarios, processes

Technical procedures
- Connectivity, technical setup of a system

Technical assets
- Predefined forms and reports
- Standard assets for loading master data

Pre-configuration
- Configuration Settings
- Test cases

Documentation
- Scenario description
- Installation Guide

Different ERP implementation Strategies

- Different companies follow different approaches for ERP implementation, each of which has their own advantages and disadvantages.
- Some of the common approaches are:
  - Big bang (all locations, all modules)
  - Rollout (Selected locations, all modules)
  - Big bang and modular (all locations, selected modules)
  - Rollout and modular (selected locations, selected modules)

Comparison of different implementation approaches

Parameters for comparison	Bigbang	Rollout	Bigbang modular	Rollout and modular
Risk	High	Average	High	Low
Time	Low	Average	Average	High
Learning scope	Low	High	Average	High
Change management	High	Average	High	Low
Resource demand on the company	High	Average	High	Low

High   Average   Low

Points to Remember:

- ERP implementation Life Cycle:
  - Pre-implementation phase
  - Project preparation
  - Business blueprinting
  - Realisation
  - Final preparation and go live
  - Support phase

Points to Remember:

- Implementation methodology
  - ASAP (SAP Vendors)
  - Ascendant (IBM consultancy)
- Different type of ERP project
  - ERP implementation projects
  - ERP upgrade projects
  - ERP global rollout projects
  - ERP migration projects
- Different ERP implementation strategy
  - Big bang (all locations, all modules)
  - Rollout (Selected locations, all modules)
  - Big bang and modular (all locations, selected modules)
  - Rollout and modular (selected locations, selected modules)

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