A guide to perform tool rollouts based on the learned lessons from more than 300 projects.

A large part of this guide will apply to software rollout projects in general.
1. What is project-open?
2. People issues – lessons learned
3. Rollout goal hierarchy – all the things you need to do right
4. Checklists for project definition, implementation and operations
5. Detailed rollout activities
6. Rollout strategies
1. What is Project-Open?

Project-Open is an enterprise open-source project management application for both project management of individual projects and project portfolio management.
What is or does [project-open]?

[project-open] is an enterprise open source project management application.

- It’s main purpose is to coordinate the work of project managers, project members and stakeholders across multiple projects.
- Target organizations include companies and corporate departments that need to track finances, tasks, and resources for a large number of concurrently running projects.

Achievements
- ~6,000 Customers in production
- EOS directory: “3 stars – mature” enterprise readiness
- Heise.de: “Germany’s #3 open-source ERP/CRM application”
- Ohloh: “#1 open-source web application with 2,500,000 lines of code”
- SourceForge: 150,000 downloads of [po] V4.0
~6,000 Customers Worldwide

Selected Installations
- NeST IT (~2,500 users)
- <large Spanish bank> (~1,500 users)
- <large Swiss bank> (~300 users)
- Champ Cargosystems (~200 users)
- <Spanish supermarket chain> (~300 users)
- Weber Engineering (~200 users)
- DHL Malaysia (~150 users)
- <Spanish insurance> (~150 users)
- <Macau casino> (~150 users)
- <large European airport> (~100 users)
- <German software> (Bechtle AG) (~100 users)
- <American aviation> (~100 users)
- <American financial consulting> (~100 users)
- VAW arvato S.L. (Bertelsmann) (~60 users)
- <large Swiss manufacturing> (~50 users)
- <German IT security> (~50 users)
PROJECT OPEN BUSINESS SOLUTIONS S.L.

Project Open Business Solutions S.L was founded in 2003 and is headquartered in Barcelona, Spain. The company provides open-source projects and service management applications. The company offers various solutions, such as enterprise project management, IT service management, project management office and PSA.

Project Open Business Solutions S.L has a prominent presence in Europe and has offices in US and Europe. The company also has presence in APAC, MEA and LA. The company caters to SMEs and large enterprises. Project Open Business Solutions S.L provides its solutions to various industry verticals such as information technology, architecture, engineering and construction, BFSI, legal services, media and entertainment, healthcare and life science, government, and audit and accountancy.

MNM VIEW

The company provides comprehensive solutions for PSA which includes project management, project accounting, time and expense management, invoice management, analytics, resource management, and management reporting. Project Open Business Solutions S.L also provides services such as training, deployment and integration, consulting, support, and managed services. The company has a business strategy for extending its geographic footprint, it does so by leveraging partnerships and offering open source PSA solutions. Project Open Business Solutions S.L has designed its products to support customization and add-ons. The company focuses on enhancing its product portfolio by integrating with various add-ons such as rule engine, project scoring, mobile timesheet, portfolio/resource planner, and new task management.

The company provides open source software community edition for free but also provides subscription based pricing for professional and enterprise edition. The professional and enterprise editions of product offers better scalability, lifecycle guarantee and certified stack.
Key Markets & Vertical Solutions

- **PSA: Professional Services Automation**
  Small and medium service companies who need to track project progress and invoice services

- **ITSM: PPM + ITIL for IT Departments**
  IT departments who need an integrated solution for managing the entire organization

- **EPM: PPM for Non-IT Departments**
  Marketing, legal, construction and other departments

- **PMO: PPM for PMOs**
  PMOs need support for their administrative functions

- **FTTx-Cockpit: Fiber Optics Construction Projects**
  PM for large fiber optics construction projects
Public Cloud
- Offers SaaS hosting for V5.0

Private Cloud
- A VMware virtual machine is available suitable for VMware private clouds.

Dedicated Server
- Installers for Windows and Linux are available for (high-performance) on premise installations

Mixed
- A private cloud server containing a backup of a public cloud server.
- One or more public cloud servers containing active projects, while data are consolidated for reporting in a private cloud.
Functionality

project-open[ consists of ~200 different modules covering all areas of PMBOK
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- **FTTx-Cockpit: Fiber Optics Construction Projects**
  PM for large fiber optics construction projects
**HTML5 Gantt Editor:**
Drag-and-drop editing of project schedules similar to Project Libre, Gantt-Project or Microsoft Project.

**HTML5 Portfolio Planner:**
Editor for project portfolios including what-if scenarios, cross-project dependencies and resource forecasting.

**HTML5 Task Management:**
Easy overview of tasks to do for the current user or tasks to be done for the PM.
- **Project Earned Value:** Planned vs. actual value
- **Program Project Status:** History of status of projects in a program
- **Portfolio Scoring:**
  - Risk vs. ROI
  - Strategic vs. ROI
  - ...
- **Finance Top Customers:** Top 10 customers
- **Revenue by Dept/BU**
- **CRM Sales Portfolio:** Including drag-and-drop editing
- **DIY:** Instructions available to build diagrams yourself: [www.project-open.net/en/tutorial-sencha-ajax-portlets](http://www.project-open.net/en/tutorial-sencha-ajax-portlets)
]project-open[ is Open Source Software

- Download ]project-open[ „Community“: http://www.sourceforge.net/projects/project-open/files/project-open/V5.0/

- 90% of customers use the community edition, even large ones

- We earn 90% of our money from consulting, training and customizations

- Enterprise edition available at 1/10th of any competing product.
2. People Issues – Lessons Learned

Not all users may be happy about the introduction of a new software. They may just not like the GUI, or may have something to lose.
People Issues Learned Lessons

- #1: Reasons for Resistance
- #2: Change Management
- #3: Management Buy-In
- #4: Six Types of Power
- #5: Force-Field Analysis
- #6: Gradual Roll-Out
Project managers, project team, ...

Project Data

Decisions, corrective action, ...

Executive Reports

Stakeholders

Task Management, project tracking, budget control, ...

SAP

Active Directory
The “principal – agent” problem [...] occurs when one person or entity (the "agent"), is able to make decisions and/or take actions on behalf of, or that impact, another person or entity: the "principal".

Wikipedia

- Principal: Corporate Management
- Agent: PM, Department heads, ...
Power

The capacity or ability to direct or influence the behavior of others or the course of events.

OXFORD English Dictionary

Power Shift

Improving the quality/sophistication of a PMO leads to a shift of power:

- Senior management will gain power by better reports which will improve the oversight of projects.
- Project managers and department heads may lose certain independence and therefore power.
Lesson #1: Reasons for Resistance

- PMO transparency will discover project deviations, errors, not officially approved activities and worse.
- PMO efficiency may reduce the workload for certain administrative roles, who fear being layed off to get a different job.
- PMs may fear being compared (benchmarked) with other PMs.
- Increasing reporting details may lead to higher time effort for PMs.
- PMO implementation may require common PM methodology and „common language“. This means that PMs may have to change their way of working.
- ...
Lesson #2: Change Management

- Involve PMs and users already during design phase!
- Establish a „Key User“ as an ambassador to other users.
- Search on Google for „change management tutorial“
Lesson #3: Management Buy-In

Common knowledge:
- Management buy-in is most important PMO project success factor.

Not completely wrong. But what if you just don’t have the buy-in (yet)? Here is the way to get it:

- Check if somebody important is looking at your data. Can you make additional stake-holders look at your data?
  - **Financial managers are your friends**!
  - Do the internal “customers” of the PMO projects get regular reports?
  - What about BU heads or departments affected by projects?
- What reports/indicators are they used to see or want to see?
- From there you have to work backwards:
  - What input data are needed for the reports?
  - How to get this data?
  - Who has the knowledge to produce this data?
  - How to get the appropriate quality?
  - How can you make the knowledge bearers enter (and update!) them happily?
Lesson #3: Buy-In with CMM

PMO Capability Maturity Model:
- Start right where you are
- Produce whatever reports you can
- “Sell” the reports to senior management
- Use momentum to get to next level

Source: Gartner
Lesson #4: Six Types of Power

Use wisely all of the six types, according to personal and organizational needs.

- Coersive power – thread of force
- Reward power – offer or deny rewards
- Legitimate power – by position of authority
- Referent power – respect to group
- Expert power – superiority of experience
- Informational power – by information

according to John French and Betram Raven (1965)
Lesson #5: Force-Field Analysis according to Kurt Levin

- Draw a diagram of forces for and against change
- Strengthen the positive forces and provide them support
- Develop strategies to mitigate or sideline negative forces

Input for other areas:
- Stakeholder analysis
- Risk analysis

Forces for Change
- Management data need
- Easier reporting
- Additional reports
- Additional stakeholders

Forces against Change
- Dept. head against transparency
- PM xxx rejects new PM meth.

<Go through all persons involved and note if they are in favor or against the project, and what their impact can be. Find out what you can offer to them in order to pull them to your side.>
Lesson #6: Gradual Roll-Out

- Be clear about the scope of your project. It may be easy to implement a PMO in your BU, but forcing other departments or BUs to use your tool you may need a level of power not (yet) available to you.

- **Success is a source of power.** Once powerful stakeholders see your fancy reports or get access to real-time project information (in other BUs), they may grant additional power to you…
3. Rollout Goal Hierarchy

Not all users may be happy about the introduction of a new software. They may just not like the GUI, or may have something to loose.
Successful installation

No major issues with the system

Sound support

Legacy data migration

Clean data in the system

Clear instructions to users

Users perceive a familiar environment

Stable and well configured system

Enough slack time for training

Training

Users don’t feel threatened by the system

User buy-in

Operational efficiency

Improved processes

Improved process visibility

Better portfolio decisions

Sound and specific reports

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Goal Hierarchy - Technical Base

- **Successful Installation:**
  The installation has to be finished technically:
  - ]po[ is running well and with good performance
  - ]po[ is accessible via URL „http://project-open.<company>.com“

- **Successful Configuration:**
  ]po[ out of the box is a “toolkit”. In order to create a “solution” you have to:
  - Removed unnecessary functionality
  - Configure permissions and categories

- **Legacy Data Migration:**
  - Imported existing “master data” including users, departments customers, ...
  - Import existing projects
  - Import old financial data

→ **Stable and well configured system**
Goal Hierarchy – User Related

- **Training:**
  - You normally need separate user manuals for normal users and for managers that explains how to create projects and where to enter data.
  - This manual should be the base for hands-on training in groups of 5-15 users.

- **Sound Support:**
  - After the training, users who start to use the system will nearly always encounter some kind of issues (login invalid, data are wrongly imported, ...). These issues need to be dealt with very rapidly (same day) in order not to loose the trust of the users.

- **Enough slack time for training:**
  This is an important factor in customer focused organization where users may not have enough time to get familiar with the system.

- **Users perceive a familiar environment:**
  Users need to feel that the server contains “their data”

- **User don’t feel threatened by the system:**
  One of the few failed projects were to a proud manager telling his team that the company would reduce the headcount after the project...

- **User Buy-In:**
  This is the main goal with respect to users – buy-in means that users start to use the system and trust the reports shown.

- **Users take advantage of system capabilities:**
  One bought-in, users tend to explore the system with the perspective “what’s in for me?”. They frequently discover ways to use the collaboration tools etc.
Goal Hierarchy – Data Related

- **Legacy data migration:**
  Preferably all previously available data should also available in the new system.

- **Clear instructions to users:**
  In project-open, users can enter data incomplete, inconsistent, in the wrong place or just in a way different from what certain reports expect. So users need clear instructions and training on how to enter data. Also, a feedback loop needs to be in place from data consumers to data producers.

- **Clean data in the system**

- **Sound and specific reports:**
  - The default reports in project-open may need to be adapted to the specific process variants found at the customer
  - The data shown in the report need to be correct and it needs to be clear how they are calculated. „Strange data“ in reports will lead to a loss of trust.

- **Improved process visibility:**
  Managers will be able to take better decisions with clean data and specific reports
4. Checklists for Project Definition, Implementation and Operations
The decision “Adapt ]po[ or adapt the company” is the single most important factor to determine the project cost and implementation speed.

The “Strong Key User” is the most important factor in a project’s success. A strong Key User is somebody with detailed knowledge of all company processes and has some technology skills, quickly understanding the logic of a software.

The outcome of the Project Definition is used in the following phases, so it is important to document the decisions here.
Each of the factors below need to be covered about 80% in order to allow a successful “go-live”. Small modifications (20%) are usually fine after the go-live if expectations are managed accordingly.

The key for a successful go-live is the “Training Manual” that explains how users should use ]po[. Writing this manual can take 5-10 net days of work..
The #1 issue after the go-live is the quality of data in the system. Please make sure that user can “trust” the data inside the system and know who entered these data, so that complaints can be converted in improvements.

The key for successful long-term operations is a Support Team that is capable of modifying/extending. This team can be either in-house with 3rd level support from (recommended) of outsourced.

System Admin is usually not an issue anymore after the go-live. But please make sure to test recovery operations every 2-3 month.
5. Detailed Rollout Activities
Two-Week Rapid Rollout

**Preconditions**
- Base Inst.
- Gap Analysis
- Configuration
- Configuration Requirements
- Extension Requirements
- Data Import Requirements

**Week 1**
- **Specs**
  - Training on the configured system. Last check with PMs if everything OK.
  - Fix Issues, clarify processes
  - Legacy Data Import
  - **Go-Live**
    - The Go-Live Condition:
      - All #1 prios need to be OK in order to go-live
      - Week 2 is to fix prio #2 issues and questions, such as incomplete master data or process variants

**Week 2**
- **Go-Live** "Hand-Holding"
  - Fix Issues, clarify processes
  - **Support (Contract)**
  - Prio #3 issues can be fixed remotely
- Training for Accounting, Sales, ...

Fix Issues, clarify processes
For medium sized projects

1. Definition
2. Kickoff
4. Gap Analysis
5. Configuration Requirements
6. Configuration
7. Extension Requirements
8. Extension Development
9. Data Import Requirements
10. Legacy Data Import
11. Training
12. Training
13. Training
14. Go-Live Support
15. Normal Support
16. Go-Live
# Full Rollout Implementation Steps

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<tr>
<th>Definition</th>
<th>Extensions (optional)</th>
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## Definition Phase

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<th>Work Package</th>
<th>Objective</th>
<th>Deliverables</th>
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</table>
| Scope & Application Workshop        | - Customer’s Senior Management learns about the application and identifies the modules to be implemented.  
  - Identification of extension development necessities.  
  - Senior Management or Key Users specify configuration and customization necessities.  
  - Scoping and functional requirement definition for extension development. | - Scope of project  
  - Input for first cost estimate  
  - Decision structure  
  - Configuration requirements  
  - Extension requirements  
  - Input for detailed quote |
| Design Workshop                     |                                                                           |                                                   |
### Extensions Phase

#### Work Package

- **HTML Mockup**
- **Feature Freeze**
- **SQL & Application Design**
- **Development**
- **Prototype**
- **Testing & Completion**
- **Documentat., Training Mat.**
- **Sign-off**

#### Objective

- Build a functional “mockup” using static HTML pages based on input from the “Design Workshop”.
- Mockup confirmation in a functional design workshop and freeze of specifications.
- Define how extensions should relate to existing modules.
- Design a SQL data model.
- Implement the specified extensions.
- Presentation of a prototype to the customer.
- Completion of the prototype functionality and testing in the customer’s context.
- Documentation of the extensions and development / adaptation of training material.
- Extensions sign-off.

#### Deliverables

- HTML mockup
- Functional specifications
- Reutilization Concept
- Data Model
- Working code
- Confirmation of functionality
- Working system
- Documentation & training material
- Working extensions
## Installation Phase

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<tr>
<td>Server Installation</td>
<td>▪ Install the <strong>po</strong> application on a production server and (optionally) on a development/test server. Security configuration.</td>
<td>▪ Installed applications</td>
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<td>▪ Configuration of Admin / Parameters section according to customer requirements.</td>
<td>▪ Working application</td>
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<td>▪ Setup of user profiles and user profile privileges according.</td>
<td>▪ Secure application</td>
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<tr>
<td>Basic Configuration</td>
<td>▪ Adapt <strong>po</strong> categories (project types, customer types, …) to the specific business.</td>
<td>▪ Adapted application</td>
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<tr>
<td>Permission Configuration</td>
<td>▪ Adapt GUI colors and font styles to the customer’s corporate design (optional).</td>
<td>▪ Attractive application</td>
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<tr>
<td>Category Configuration</td>
<td>▪ Create <strong>po</strong> customers, providers, customer contacts, freelancers, employees and prices from existing data.</td>
<td>▪ Usable application</td>
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<tr>
<td>Project Managers</td>
<td>▪ Allow PMs to efficiently use the “Translation Workflow”, “File Storage” and “Forum” modules.</td>
<td>▪ Successful training</td>
</tr>
<tr>
<td>Training</td>
<td>▪ Allow accountants to efficiently use the “Translation Invoices” and “Freelance Invoices” (optional) modules.</td>
<td>▪ Successful training</td>
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<tr>
<td>Accountant Training</td>
<td>▪ Enable the Sysadmin to perform backup, restore and recovery operations.</td>
<td>▪ Successful training</td>
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## Go-Live Phase

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| Milestone Go-Live | ▪ Obtain technical OK to go-Live.  
▪ Obtain user’s OK to go-live.  
▪ Live setting of the application. Final transfer of data from the legacy to the new system (optional). | ▪ Decision to go-live  
▪ Operational new system |
After Go-Live

**Work Package**

- "Hand Holding"
- After Go-Live Training
- Support Contract

**Objective**

- Presence of implementation team members during the first days after going live in order to deal with questions and issues.
- Training to deal with unanticipated or unresolved questions after the go-live.
- Ongoing support.

**Deliverables**

- Successful completion of the first project cycles
- All users are capable of using the system
- A stable and updated system
## Implementation Phases

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**Timeline:**
- **Scope & Application Workshop**
- **Design Workshop**
- **Extensions (optional)**
- **Installation**
- **Training**
- **Go-Live**
- **After Go-Live**
6. Rollout Strategies
**Rollout Options**

**Vertical** Rollout Option: One project manager starts using the system, possibly only for a limited number of customers.

**Horizontal** Rollout Option: A single process (PM, CRM, file storage, ...) is being used by all PMs.
„Vertical“ Rollout

Pros

䠣 Limited Risk: A single project manager „tests“ the functionality
䠣 Skill Management: The initial PM will probably be interested in systems & IT
䠣 The initial PM can later provide training & support to the other PMs

Cons

䠣 Integration Difficulties: This approach can be difficult if needs to be integrated with existing systems.

Summary

䠣 „Vertical“ is the best option for smaller companies and companies without PM systems.
„Horizontal“ Rollout

Pros
- Reduces Integration Difficulties: „Big Bang“ rollout is cheaper if there are existing systems that would have to run in parallel otherwise.
- No duplicated training

Cons
- Higher Risk: Initial implementation difficulties have bigger impact on the company

Summary
- „Horizontal“ is the best option for complex rollouts in larger companies in order to avoid high integration costs with existing systems.
- „Horizontal“ may be combined with a „vertical“ test phase.
Typical Rollout (1)

Start with the most IT-savvy PM. He or she will later provide training to the other PMs.

Start with project management and the freelance-DB. You will need to setup a few customers and freelancers in order to get started.
Integrate with your financial backend. Train your accountant(s) to import information from [po] and how to track bills & invoices from within the system.
Now one option is to start using the translation workflow and to involve the first freelancers in the process. However, this is not a necessary step.
Now (some 1-3 month after starting with the first PM) your company is typically ready to rollout for the other PMs.
After this point there are several options on how to proceed. However, your company will have made a lot of progress understanding the system, allowing you to take an informed decision.