



The Reference Data Management Workbook

A 3-Step Guide to RDM Success

Semarchy

Where to start your RDM journey

1 Get ready for RDM

Take an inventory of your data sets and identify business challenges your program would solve.

2 Assess your needs

Pick the right tool to manage and share your reference data consistently across your organization.

3 Get started

Plan your strategy to jumpstart your RDM program and identify metrics to show stakeholders early success.

Is your critical data scattered in several systems?

Does your team spend hours manually cleansing inconsistent reference codes?

Well-managed reference data is the foundation of information management. It provides insight into data at your organization and facilitates regulatory compliance.

This workbook is designed for Information Management professionals considering implementing an RDM program. It empowers you to follow your strategic decisions and business vision, the two necessary elements to jumpstart an RDM program.





Step 1

Get Ready for RDM

Before starting your first RDM program, understanding the challenges that your organization faces will help you address its needs. Perform the following tasks to develop the overall vision that will guide your strategy.

Define your business goals

Task 1: Clear business goals will guide your RDM project. Define strategic milestones to stay on track and help you communicate the value of your project efficiently with stakeholders.

What will you achieve with RDM?

- Better prepare for negotiations with Grainger, McMaster, and Reid.
- Reduce the time it takes Sally to onboard new suppliers.
- Help Michael's global commerce team localize data to launch faster products to the global markets.
- _____
- _____
- _____
- _____
- _____
- _____

Tip: Use this list of typical RDM benefits to guide your business goals.

- Simplify project management
- Make data management more efficient
- Avoid duplicated manual effort across teams
- Accelerate the analysis of spend data
- Get a uniform, enterprise-wide view of spending
- Easily maintain hierarchical tree view for “drill down” and “roll up” analysis
- Collaborate with partners (e.g. Customers and Suppliers) with a common classification system
- Reduce inventory efforts with product standardization
- Comply with regulations and create audit trails



Identify your critical Reference Data

Task 2: Identify which reference data is critical for your program. This data is typically found across several systems, and several processes use this data at their core.

List the critical cross-business data your organization depends on:

- NAICS codes
ex: 324110 - Petroleum Refineries
- ISO Currency codes
ex: USD = US Dollar, CNY = Chinese Yuan
- ICD-10 codes
ex: W61.42XD - Struck by turkey, ...
-
-
-
-
-

Master Data Examples

- Parties: Customers, Suppliers, ...
- Products: Parts, Materials, ...
- Places: Sites, Stores, Addresses, ...

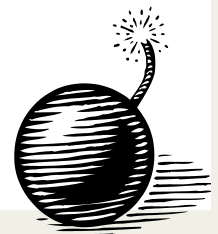
Reference Data Examples

- ISO Country Codes
- Tax Locale Rates
- SWIFT BIC Codes
- ICD-10 Disease & Injury Codes
- Business Classification
NAICS, SIC, NACE, UNSPSC codes
- Internal Classifications and hierarchies
Sales Regions, Cost Centers, Chart of Accounts,...

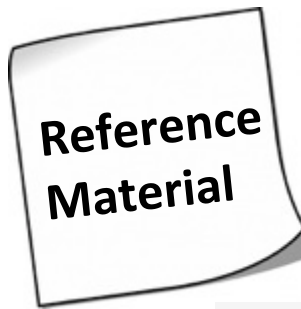
Learn more about “Why reference data is important” and “How to manage reference data” on the next two pages.

Warning!

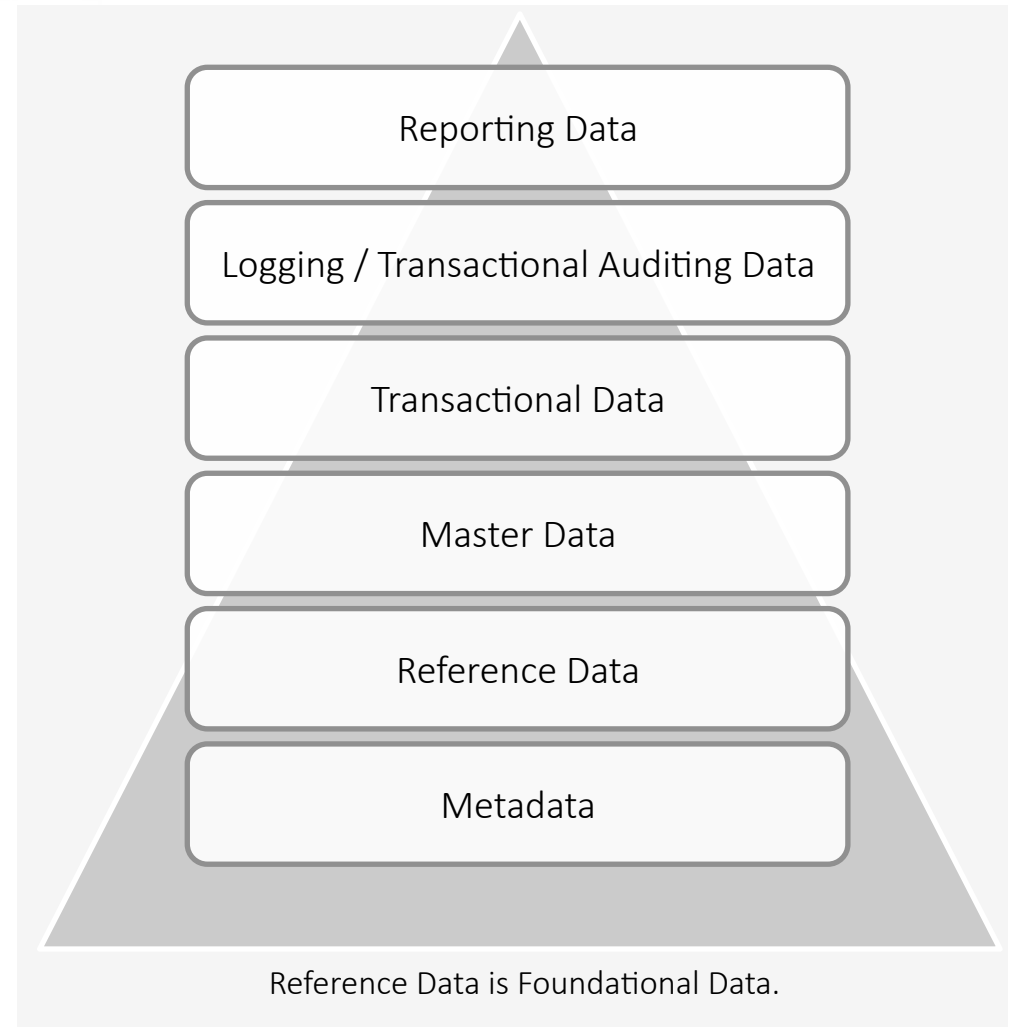
Too often people believe that reference data management is *somebody else's job* –like an external authority. In reality, reference data *specific to the organization* is the most important.



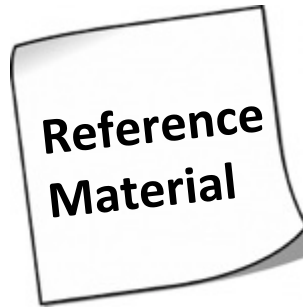
Why is Reference Data important?



- 1 Set the Semantic Context**
Your organization's definition and interpretation of reference data gives meaning to master data.
- 2 Foundational Data**
Reference data is widely used internally and also shared with partners. It is the key to building operational efficiency and reporting accuracy.
- 3 Faster Integration**
When governed well, reference data ensures consistent data across all systems, which speeds up integration of isolated applications and boosts communication within your organization.



Why manage your Reference Data?



- Reference data bridges data governance and master data management.
- 60% of enterprises manually collect and analyze reference data, leading to inefficiencies, limited visibility, and unnecessary costs.
- Almost half of all enterprises report that the biggest barrier to effective spending, budgeting, and planning is data quality.
- Organizations report slashing costs by a third thanks to well managed reference data.

Percent of organizations reporting these benefits from RDM programs



Rate your Reference Data

Task 3: Add the reference data you identified in Task 2 to the table below and evaluate the importance of that reference data set.

Reference Data Set	Importance
Sales hierarchy	Critical (analytics)
Customer type	Critical (operational)
Industry (NAICS)	Nice to have
Hazard codes	Need to have

Evaluation Scale

Critical

Need to have

Nice to have

NACE UNSPSC ISO 3166-1 Alpha-2 Airline Flight
Schedules ISO 3166-1 Numeric eClass ICD-10 ISO
8601 NAICS Units of measurement ISO 1000 ANSI
X3.50-1 D&B ENV 12451 SIC ISO 639 Medical
Procedures ISO 2955-199 Zip Codes Billing Exchange
Rates ISO 8601 PLZ Internal Product Categories
3166-1 Alpha-3 PAF HL7 Gender

Tip: Pick a domain you control.

Consistent, agreed-upon definitions are critical to RDM. If a data governance committee exists, work with them. Your work will complement their vision.



Choose your project

Task 4: Map your business goals to your **mission-critical** data. Pick one business goal that will drive the decision to manage selected reference data sets.

Business Domain(s) Involved:

Affiliated jewelry store locations

Business Goal:

Provide accurate store locations on mobile app for customers

Benefit Criteria (in other words, ROI):

Greater number of store check-ins through mobile app and social websites, e.g. Facebook, Yelp, etc.

Reference Data Set(s) to manage:

Store locations, store IDs, store hours, etc.

Start Small

If you're waiting for the perfect time to integrate all reference data, the time will never come. Instead, choose an iterative approach: Start small. Pick a tangible pain point and begin your RDM program from there.

By rating the importance of your reference data sets, you can reduce your program to a reasonable scope.

Warning!

A Big-Bang Approach, that is an attempt to manage a large number of master and reference data sets at once, is a path to failure.



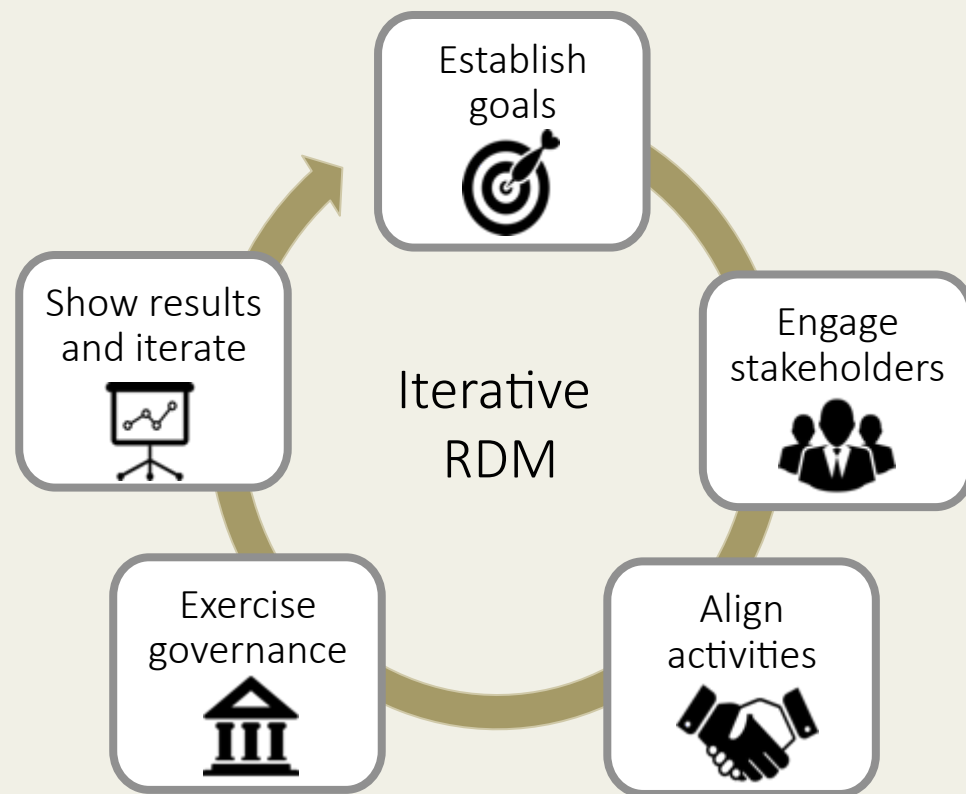
Key to Success

Task 5: Select the next areas of focus for your RDM program roadmap. This will provide a vision to all stakeholders that the program will be completed on schedule.

1. Jewelry store addresses
2. Regional Sales hierarchy
3. Tax locales and sales tax rates

Advantages of an iterative RDM program:

- Accelerates the completion of the initial program
- Provides value to the business quickly
- Establishes a track-record of success
- Allows for changes in business priorities



Tip: Plan your Next Iterations

Data management is a journey, not a one-time project. Do not lose track of the reference and master data that you have to manage. Always plan for your next move as you iterate.



A close-up photograph of a hand holding a dandelion seed head. The hand is positioned at the bottom left, with fingers gently gripping the base of the seed head. The seed head is composed of numerous small, white, feathery seeds radiating from a central point. The background is dark and out of focus, showing some green foliage. A white rectangular box is overlaid on the left side of the image, containing text.

Step 2

Assess Your Needs

Now that you have set your goals, consider who you need on your team and what features you need from a tool to be successful.

Build your team

Task 6: Identify people in your organization who would be a good fit for each of these roles

Executive Sponsor:

Business Team Members:

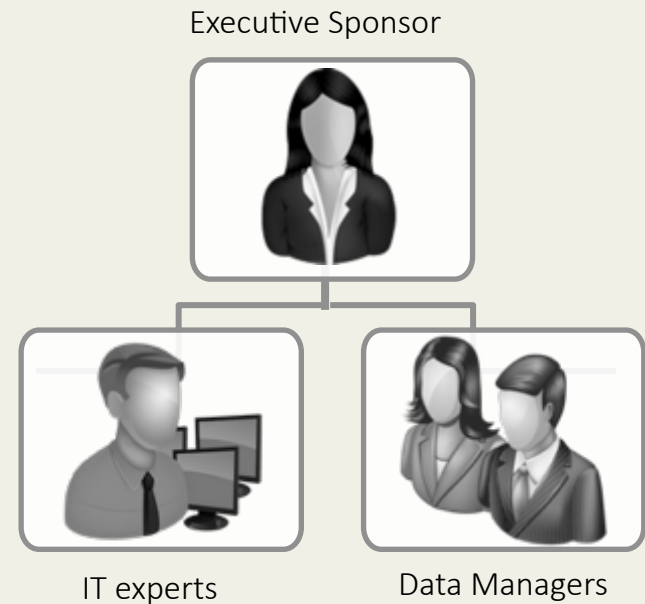
IT Team Members:

People, Process, Technology

Just as important as choosing the right reference processes and the right technology tools to achieve your goals, assembling a strong team will increase the success of your project.

Winning Team

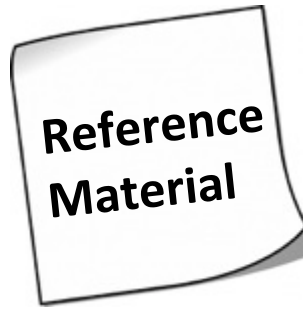
The three roles you need to ensure an effective team:



Tip: Read our whitepaper [How to Secure Executive Sponsorship for your MDM Project](#) and apply the concepts to your RDM program



Pick the tool for the job



Think about the external and internal reference data you need to manage.

Consider:

- How will you bring your external and internal data together?
- How much collaboration takes place across teams at your organization?
- How dirty is your reference data?

The DIY approach

Over half of enterprises choose to manually author and edit hierarchies, mappings, and codes stored in multiple sources, by hand. If your organization doesn't need to track changes over time or resolve conflicts, then Excel is your tool of choice.

The bottom line

Your performance will be measured based on results, not effort in Excel. So skip directly to adding value to your data.

- Analyze trends
- Report on KPIs
- Uncover revenue-increasing and cost-saving opportunities
- Deliver results to stakeholders

Achieve results with the help of a tool to do the heavy lifting for you.

Tip: Buy, don't build RDM in-house

Reference data management should remain **business focused**.

Do not think in terms of application development.



What features do you need to manage your reference data?

Task 7: Fill out the Required? column to figure out what you need to **manage** *your* reference data.

Feature	Required?	Excel	Data Integration tool	Hierarchy Management tool	Reference Data Management
Flat Code List		Yes	Yes	Yes	Yes
Mappings		No	Yes	Yes	Yes
Hierarchies		No	No	Yes	Yes
Basic DQ		Yes	Yes	Yes	Yes
Advanced DQ		No	Yes	No	Yes
De-duplication		No	No	No	Yes
Data Versioning		No	No	No	Yes

Evaluation Scale

Critical

Need to have

Nice to have

Tip: Be wary of vendors that bundle “free” RDM tools. RDM products offering the best-of-breed technology often work much better.



What features do you need to share your reference data?

Task 8: Fill out the **Required?** column to figure out what you need to **share** *your* reference data.

Feature	Required?	Excel	Data Integration tool	Hierarchy Management tool	Reference Data Management
Sharing Data (APIs, Web Services)		No	Yes	Yes	Yes
Governance Workflows		No	No	No	Yes
Basic Security		No	No	Yes	Yes
Advanced Security (Record Level, Roles)		No	No	No	Yes
Customized UI		No	No	Yes	Yes
Excel/CSV Import		Yes	Yes	Yes	Yes
Support for MDM		No	No	Yes	Yes

Tip: Don't start from scratch!
Pick a tool that can import and learn from your previous work.



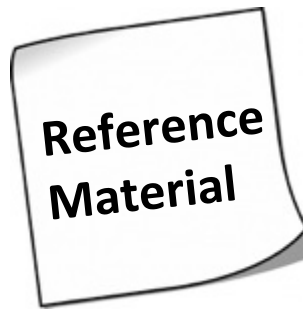
Step 3

GET STARTED

You've set your goals and found your tools, prepare to capture and manage your Reference Data.



Plan the Program

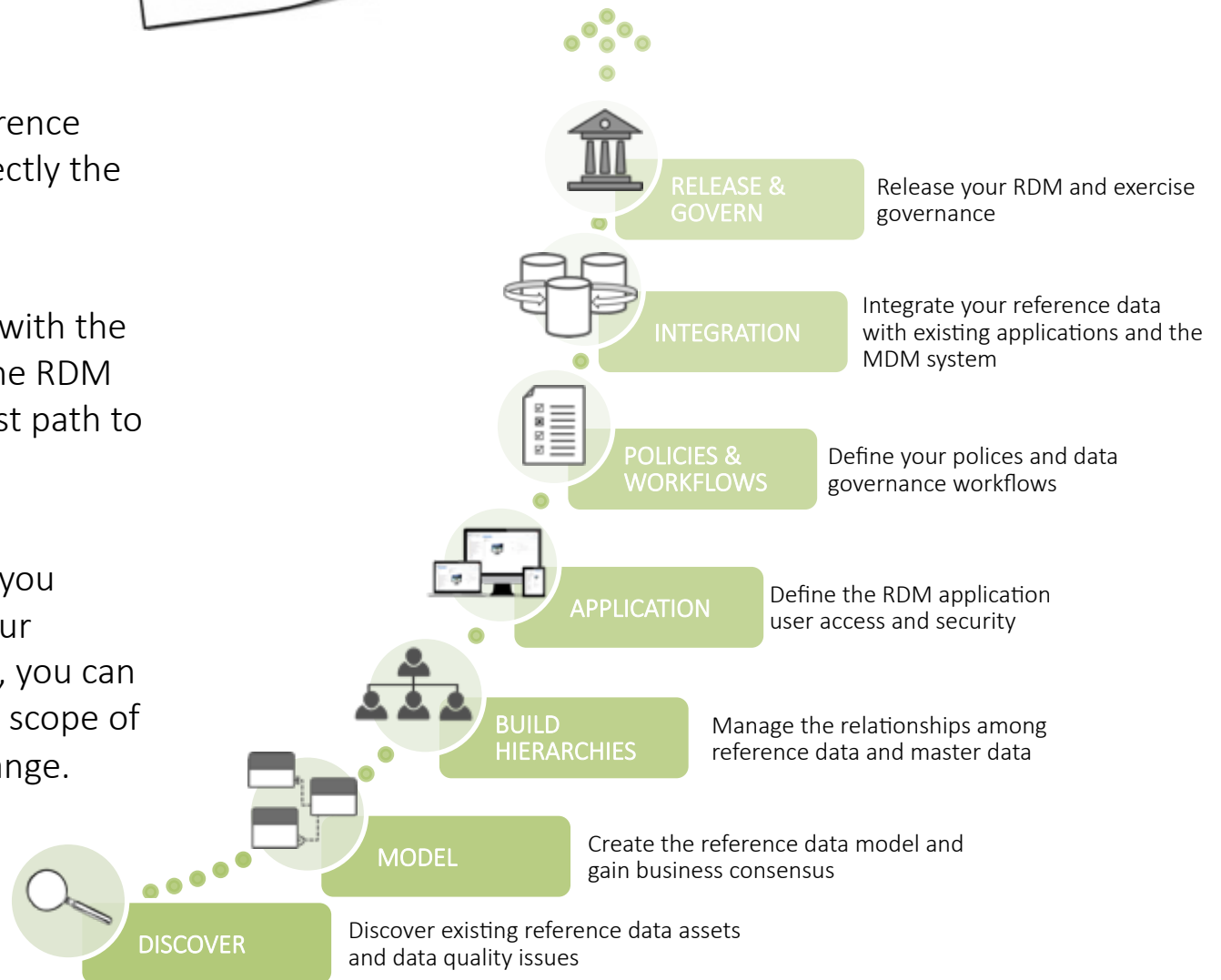


Typical Program Life Cycle

No enterprise implements a reference data management program perfectly the first time.

Following an agile methodology, with the goal of iterating and improving the RDM program along the way, is the best path to the finish line.

That's why you start small. Once you begin to see results and share your successes with your organization, you can build momentum to increase the scope of the program and effect more change.



How do you measure success?

Task 9: Set metrics and measure your progress. Evolutionary RDM advocates starting small to win early success. That way, you can demonstrate value and ROI right away to stakeholders. This approach requires metrics to show you are hitting milestones and guide you on future iterations of the program.

Technical Metrics

- Have at least 15 internal systems rely on your reference data set after a year
- Integrate at least 5 source systems after 6 months
- Integrate with Master Data Management system within a year
- _____
- _____
- _____
- _____

Business Metrics

- Reduce time-to-market for new products to 2 months
- Data Warehouse uses hierarchy “rolled up” data
- Sales and Finance use consistent, agreed-upon reference codes
- Cut spending by 15% by standardizing inventory
- _____
- _____
- _____
- _____

Tip: Business benefits are the real goal, but technical metrics serve as milestones to ensure you’re on track.



Reference Material

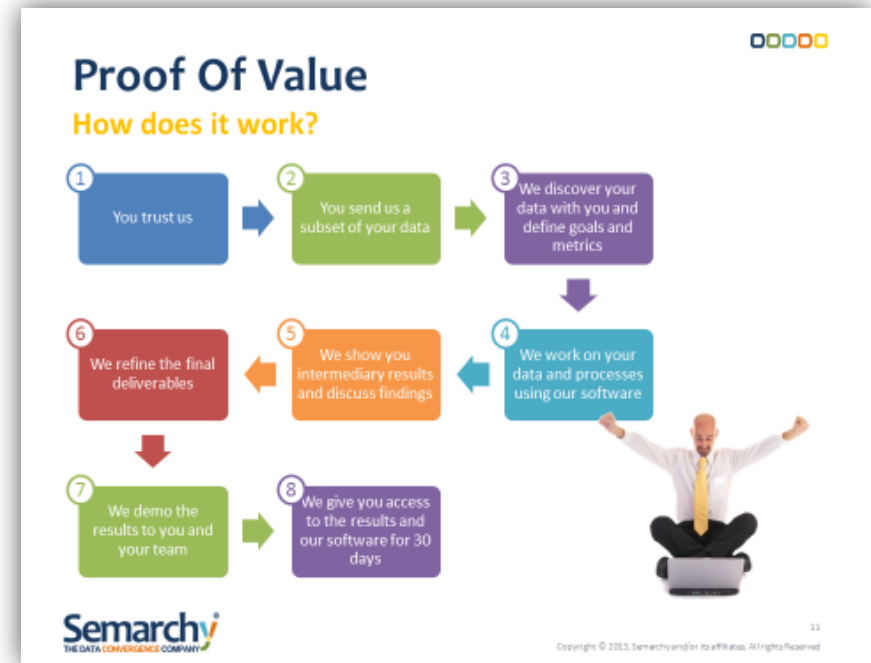
An iterative approach to RDM

A pilot program (or the first in a series of iterative projects) will show stakeholders early success. Since the return on investment is difficult to prove at the beginning of any program, a pilot program resulting in tangible results will help win your team's buy-in for the RDM initiative.

Therefore, it is critical to use real business data and requirements for the pilot. Going through a Proof of Concept (POC) is not enough because it is limited to trying out a technology product. What you need to figure out is whether the product will solve your business challenges and thrive at your organization.

A well-run pilot is a Proof of Value (POV). It jump starts your RDM program by taking you through the design process on a smaller scope. A POV also helps you determine the strengths and weaknesses of your Governance Framework. It can demonstrate that RDM happens in a fast and agile way with measureable value.

Example of an iterative approach



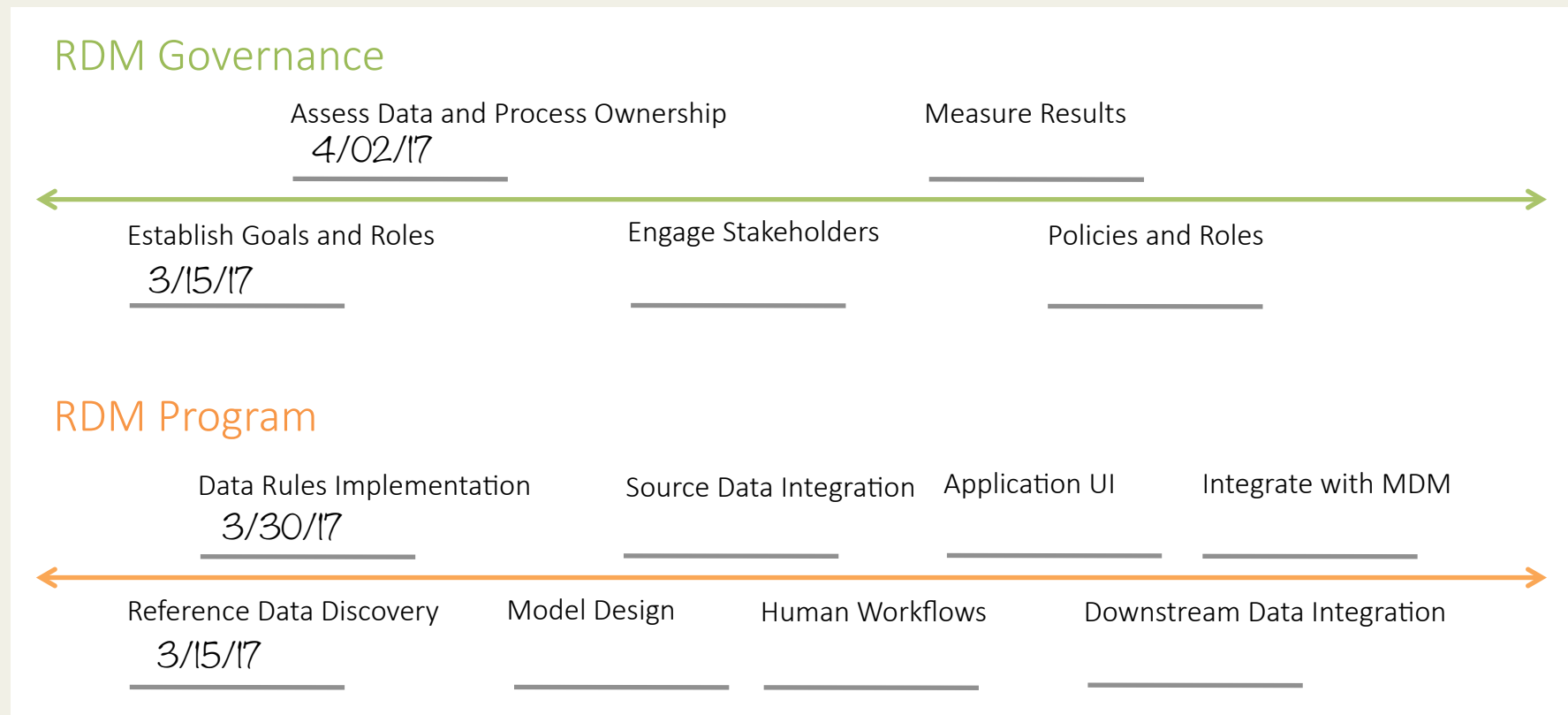
Tip: Spend no more than 2-3 weeks on a pilot program. Any longer defeats the purpose of a pilot and compromises your argument for a strong ROI.



Start the Program

Remember governance. But don't wait for governance to be solved 100% before starting.

A typical timeline for a successful program performs RDM governance and implementation in parallel.



Task 10: Set a date by which you hope to start each stage of the program. With the iterative approach, you can evolve your program as your business requirements change.

Your RDM Roadmap

Program Plan – Checklist

- ☐ Define your business goals
- ☐ Discover your organization's critical reference data sets
- ☐ Rate your reference data sets
- ☐ Choose a business problem to solve
- ☐ Identify key areas of focus for success
- ☐ Rally your team
- ☐ Pick the tool for the job
- ☐ Set metrics to measure progress and milestones
- ☐ Prove the value of your RDM program
- ☐ Kick off the RDM program
- ☐ Iterate and evolve with business needs

Tip: Take advantage of the tasks, timelines, and checklists in this workbook to guide your RDM program. These resources serve as your compass on the iterative path to RDM success.

Remember, using an iterative approach allows you to move quickly and stay agile with the ability to evolve as your business requirements change.

You will run into challenges on your journey. But you are equipped to avoid pitfalls using this workbook.

And remember, we're here to help.



Image Credit

Page 3,11,16: Photo by deathstockphoto.com

Page 2,22: Social Icons by www.iconfinder.com/MaxXx CC by 2.5.

Page 12: Icons by <http://pixgood.com/> <http://www.aha-soft.com/>



About Semarchy

Semarchy provides master data value in weeks not months, using an agile, value-driven approach to design and manage master and reference data.

www.semarchy.com

