An All-Development Roadmap

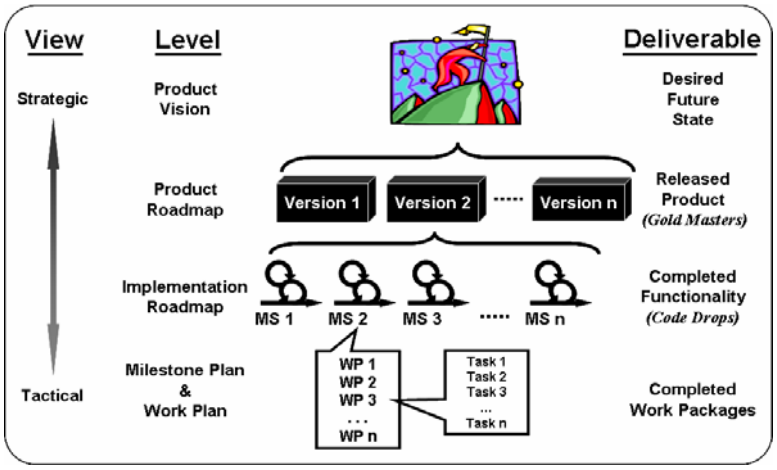
All Development Roadmap

Many of the common challenges cited by people who attend Construx's Project Management Boot Camp (PMBC) cannot be addressed by project management alone. They are related to corporate strategy or portfolio management issues.

To address these challenges, Construx recommends software development organizations create an All-Development Roadmap that clearly shows every project and support activity along with the broad strokes of engineering resources each requires. The All-Development Roadmap becomes the basis for strategic planning and tactical alignment.

Multiple Levels and Time Horizons

Construx recommends your All-Development Roadmap use multiple planning levels. The diagram below provides an example of relationships between common planning levels. The following sections provide more detail on each planning level.



Product Vision

The Product Vision provides the long term (12 – 24+ months) view. It communicates the current understanding of the strategic direction or future state. The vision is usually sketchy and benefit oriented (rather than feature and detail oriented). The development organization should use the product vision to make strategic decisions such as technology insertion and capacity management.

Product Roadmap

The Product Roadmap provides the mid-term (3 – 18 months) view. It communicates the expected releases to the marketplace or the production users. It identifies key releases, themes, preliminary plans, general dates & scoping. Less detailed planning is required for

later releases, but no roadmap timeline is possible without at least preliminary scoping of effort which usually requires defining the marquee features.

The Product Manager or Systems Owner typically creates the Product Roadmap. It should be reviewed at least semiannually and updated to reflect the current business needs. The development organization should use the product roadmap to charter and align project teams.

Implementation Roadmap

The Implementation Roadmap provides the near-term view (0 – 6 months). It is typically associated with one or more projects and results in a product release. The Implementation Roadmap sets the context for the project by defining the high-level path through the release and the major dependencies. It does this by defining the major project milestones, the objectives and expected timeline of each one. The detail should be sufficient to allow the organization to identify issues such as conflicting, missing, or over loaded resources; functionality overload; and bottlenecks. The details for long projects an be adjusted; providing finer-grain details for earlier milestones and coarser details for later milestones.

The project manager typically creates the Implementation Roadmap and uses it when making tactical decisions dealing with on-going projects. It often results in the first realistic schedules and identifies difficult feature tradeoffs, sometimes forcing reprioritization. This is also a good opportunity for nailing down the sequencing and dependencies among related projects.

The team should review the Implementation Roadmap after each milestone based on lessons learned during the milestone or changing business needs.

Milestone Plan and Work Plan

The Milestone Plan and Work Plan provide the very near-term view (0 – 6 weeks). The Milestone Plan and Work Plan refine the milestone definition to obtain team commitments. The Milestone Plan elaborates the milestone's objectives and features and confirms external dependencies. The project manager uses the Milestone to coordinate across multiple teams and as the basis for status reporting.

In the Work Plan, the individual work packages are decomposed to model the way the team will build the functionality. The team and project manager work to together to allocate team members to work packages and identify the planned start and end dates.

Incremental Commitments

Allowing the roadmap process to make incremental commitments for the development organization takes into account the inherit uncertainty in planning activities that are further out. Budget and schedule targets could still be fixed if necessary, but the prioritization of projects and their resource allocation more than 6 months out could be left with some flexibility (e.g., less granular feature descriptions, some budget or schedule flexibility). This allows project teams to plan and commit within realist time horizons. As the organization moves forward, tradeoffs can be made between projects if necessary before commitments based on those tradeoffs are made.

Critical Success Factors

The critical success factors for creating a roadmap include:

- **Include all work on your roadmap**. Many companies produce roadmaps that only contain the products they offer. They forget that customer support, technology insertion, and infrastructure development uses resources and needs to be prioritized along with the rest of the work.
- **Provide sufficient time and staffing** for feature evaluations early in the process. Understanding the users, stakeholders, and a solid business case for the feature is critical to determining what project/timeframe is most appropriate.
- **Evaluate each proposed feature's value** or return on investment as early as possible. The process should provide a quick analysis of whether the idea or a portion of the idea should even be considered further. Investigation and requirements analysis is a significant investment and your company should look for a quick rejection whenever possible.
- **Obtain an early understanding** of the effort needed to produce the feature. Be sure to consider the effort needed for quality reviews, testing, and rework. For the Product Roadmap and Release Roadmap, you should use large grain fuzzy estimates of effort such as very small, small, medium, large, and huge. More accurate estimates can be evolved for Milestone planning.
- **Balance the planned functionality** with your capacity to produce. For the Milestone Plan, this means the functionality needs to be balanced by the skills and availability of the existing internal and external resources. For the Product and Implementation Roadmaps, the functionality must be balanced against the organization's plans and budgets for increasing capacity through hiring, training, and/or outsourcing.
- **Ensure the process occurs** in a regular manner. The directors, program managers, and managers should meet regularly to review new requests, and make changes to the roadmaps as appropriate. Formalize a communication path to ensure the appropriate people are notified when important decisions such as delivery date or functionality changes need to be discussed and when the roadmap changes.