Hybrid Portfolio – visual views to support decision making
Efficient resource planning and hour reporting
MyDashboard – a personalized report view
New Pivot report
The starting points for the development of the concept have been project work and international frameworks for portfolio management such as PRINCE2, PMBOK and SAFe 4.0.

An organization implementing Thinking Portfolio is well-equipped for fast decision-making, agile change management, enhanced business drivenness, and risk management.

Thinking Portfolio’s straightforward visual presentation method and browser-based user interface speed up its adoption. The use of the system requires no special training or manuals.

Thinking Portfolio has been developed by utilizing the latest Web technology.

The browser interface work with the latest versions of Internet Explorer 11, Edge, Firefox, Chrome, Safari, and with leading tablets.

The technical solution facilitates the implementation of various portfolio management applications. The portfolio application presented here is a strategic level management tool for development projects.
Strategic Portfolio Management
– Ideas, projects and assets

Using portfolios as a management tool is growing in popularity. Its purpose is to bring consistency, efficiency and transparency to management and decision-making.

Why Portfolio Management?

The management of wide-ranging and multifaceted organizations is often complicated by the discrepancies between customer demands and expectations, problems with the flow of information, and a shortage of skilled professionals. This results in projects, overlapping and competing for the same resources, whose timing or content has not been optimized in any way; the link between practical execution and the core business strategy is often unclear.

Portfolio management is an operations model that attempts to alleviate the problems associated with fast-paced and multidimensional management. It creates operational prerequisites that at their best boost the efficiency of advance planning, decision-making, and implementation (Figure 1). Portfolio management consists of knowledge, processes and roles.

Portfolios are a specified way to pinpoint the resources and projects that will enable an organization to implement its strategy. There are three main types of management portfolios (Figure 2):

1. **The Development Portfolio** contains descriptions of the development proposals, ideas, and scenarios (for example development programs) aiming at the organization’s future.

2. **The Project Portfolio** contains projects and their sub-projects that are planned, underway, or completed.

3. **The Asset or Resource Portfolio** contains, for example, applications, skills or processes that the organization has obtained for its use through development projects and investments.

The portfolios are interconnected; project proposals from the Development Portfolio are imported to the Project Portfolio. The Project Portfolio generates an asset. Diminished property assets or poor performance generate development needs, and so forth.

**The management principle**

At its simplest, portfolio management is a question of managing and balancing earnings, investments, and risks. Earnings can be, for example, cost savings, a growth in productivity, the acquisition of new custom, or increased net sales. Investments also include the use of time and money; these include project work, training, start-up and maintenance.

There are many project risks, but also risks related to existing property, for example, the scalability of an ICT application or system in the growth or contraction of business operations.

**Portfolios’ connection to strategy and architecture**

The portfolios are intermeshed through the organization’s strategic criteria and classifications. Senior management defines the strategy’s success factors and key results that are then described in the portfolios as separate criteria that are used to evaluate an idea, project, or application strategically.

Within the portfolios, identifying the equivalency between a project or property and its business, information, application and technology architecture is essential. For example, a certain new custom information system could adequately support an organization’s strategy, but it might be incompatible with current application and technology architecture.
**Success factors**

The adoption of portfolio management can be a project, but its integration as part of an organization’s daily operations requires a focused commitment and examples set by management. Portfolio management must become a part the organization’s leadership, for example, as part of the executive group’s work.

An organization’s level of maturity has significance if portfolio management is to succeed. If there are substantial deficiencies in leadership skills or project operations, portfolio management will remain without a basis. The portfolios will be worthless if an organization lacks the ability to function according to their requirements.

Portfolio management requires tools for its support. Here as well, the tools are not the solution, but they support changes in ways of thinking.

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**Figure 1. Project portfolio management**

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**Figure 2. The strategic portfolios**
Directories

The Project Directory, an overview of the Project Portfolio (Figure above), shows the projects, for whose applications the user has viewing or editing rights. Color-coded fields indicate at a glance, for example, if a project’s time schedule is late or its budget has been exceeded.

The header row helps in arranging or filtering according to selected criteria. Projects can be displayed, for example, by criticality or budget size with a single click. Users can also filter the results to display only the projects they are interested in viewing according to several simultaneous criteria.

The selections remain effective even if the user exits the application temporarily. The portfolio view can also be hierarchical, in which case, for example, projects and their sub-projects appear in the directory.

Quality

Thinking Portfolio’s quality page uses color codes to indicate the status of projects’ recorded information:

- Has the necessary information, such as the budget and time schedule, been specified for the project?
- Has a risk analysis been carried out?
- Which product information has not been updated within a month?
**Time**

The Time View is a project directory that displays the applicable projects’ time schedules as a line graph on separate lines. The project’s stages and decision points are clearly indicated.

**Timesheet**

Timesheet is a personal view for recording and reporting work hours used on projects.

**MyDashboard**

MyDashboard introduces a personalized view for the most important reports (Figure 3). It allows to generate reports for different needs. For example, the project manager could create a specified view for the control group and project team.

*Figure 3. MyDashboard view*
Project Pages and Widgets
– The Project-specific Information

So-called widgets are Thinking Portfolio’s building blocks. Currently, there are around 1000 different widgets in our library. Following are examples of some of the most frequently used widgets.

**Project risks**

The risks widget (Figure 4) facilitates a quick analysis of the risks associated with investments and development projects. Risks are assessed according to a project’s implementation and its commercial viability.

Identifying the operational and technology risks makes it possible to define the project’s risk level, determine the acceptable commercial risk level, and easily assess the effects of any interruptions or incomplete work on business operations.

**Project resources**

Thinking Portfolio visualizes the key resources required in different project stages, as well as their degree of workload in specified sub-projects (Figure 5). The objective is to optimize the utilization of valuable resources and coordinate the right human resource skills with the right stage.

Balancing the portfolio between the resources required by future and active ongoing projects is one of the most important objectives of sound portfolio management. Thinking Portfolio illustrates the optimal staging of plans and projects in relation to currently available resources.

The required development investments are specified according to the project’s scope, staff needs, and direction.

**Log / Diary**

The Log Widget is a simple way to record a project’s history information, such as the decisions made in meetings regarding changes in the project objectives’ tracking data, in a memo-like format (Figure 6).

The Project Log is printed out as a Project Charter document, like the information from all other widgets.

**Budget**

The Budgeting Widget presents the project’s costs (Figure 7). The approved budget is entered at the start of the project. It can contain internal work as well as procurements/investments.

The project manager updates the actuals, for example, monthly. The project manager assesses the budget’s implementation with “traffic lights” from the reporting dates to the project’s completion.

**Financial calculations**

Financial widgets depict profitability calculations such as:

- Cash flow calculation
- Discount rate
- Internal interest rate
- Payback period
- Financing plan

The cash flow calculation is a table-like presentation of a project’s earnings and expenses from its early and operational periods (Figures 8 and 9). The presented figures are current values.

The cash flow calculation presents the cash flow during the first five years after a project’s start-up. If the calculation period is longer, the figures for the final years are presented as a summary in the last column.
Figure 4. The risks widget

Figure 5. Time schedule

Figure 6. Steering Diary

Figure 7. Project budget, actuals and prognosis

Figure 8. Project budget realization by quarters

Figure 9. Projects’s business case cash flow calculation
Financing plan

The plan or project’s financing situation and brief description of its financing plan can be presented in its own widget.

Calculations and other appendices

Thinking Portfolio presents financial calculations as summaries. More detailed itemizations and explanations are generally recorded in separate documents, for example, as Excel charts. The links to the appendices in question are entered in the document field.

Commercial effects

Thinking Portfolio’s Business View Widgets are organized according to commercial allocations and investments (Figures 10-13). The portfolio’s views are organized and visualized regarding, for example:

- Scope of utilization
- Degree of development
- Anticipated benefits and implementation methods
- Effects on development areas

Scope of utilization

When specifying the scope of utilization, the starting points are the company’s operations and their interconnected processes. The operations and processes are determined according to the needs of the customer’s organization at the portfolio management implementation stage.

Degree of development

Determining the degree of development will depend on whether the project is related to organizational innovation, expansion, or replacement. Developmental opportunities often relate to the facilitation of new business opportunities, or the growth or strengthening of current operations.

Business architecture compatibility

The proposed plan or project can modify or support changes in the business architecture (Figure 14). An assessment of the business architecture expresses a position on the following levels:

- Enterprise architecture
- Information architecture
- Application architecture
- Technology architecture

Implementation methods and developmental focus areas (Figure 15) can be:

- Management
- Processes
- Expertise
- Information management
- Technology solution
- Productional solutions

Strategic Enablement

The effects on development areas are organized according to the strategic objectives defined by the organization (Figure 16). Possible development areas are, for example:

- Profitability
- Growth
- Customer satisfaction
- Process efficiency
- Learning

Name Fields

Name fields have a pop-up with a photo/avatar and email address (Figure 17).

Office Integration

Thinking Portfolio allows the opening MS Office documents from the portfolio, editing them locally, and saving back. The service is based on Webdav technology.

Smart Templates

Smart Templates are Office document templates that can be opened in the portfolio for local editing.
Figure 10. Benefits map

Figure 11. Operational objectives

Figure 12. Connection to processes

Figure 14. Enterprise Architecture

Figure 15. Enterprise Architecture and Means

Figure 16. Strategic Enablement

Figure 17. Basic information
Project’s Prioritisation

Project’s prioritisation criteria change depending on the organisation. Thinking Portfolio makes it possible to view all the criteria in one picture (Figure 19).

Evaluation view consists of costs, benefits and risks. Every criteria can have factor (how to emphasize the criteria). Decision-makers can utilise these evaluations when prioritizing.

User Interface based on project type

Different projects can have different templates suitable for them (e.g. R&D or IT-development). Also widgets can be changed according to the project type.

Federated Single-Sign-On

The new single-sign-on solution of Thinking Portfolio is based on Microsoft Active Directory Federation Services (ADFS 2.0). The solution supports both SAML 2.0- and WS Federation 2.0 -based authentication schemes. No custom software is required at the customer side and the solution works from any internet location. (Figure 20).

Figure 19. Project prioritisation

Figure 20. Federated single-sign-on
### Project prioritisation

Each section is scored separately on a scale of 0 – 5

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Weight 50 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economical benefits (20 %)</strong></td>
<td><strong>Targeted Impacts: Project outputs seek financial benefits</strong></td>
</tr>
<tr>
<td>5 = Great benefits for the whole organization. Produces benefits in all of the following:</td>
<td></td>
</tr>
<tr>
<td>- Produces customer benefits</td>
<td></td>
</tr>
<tr>
<td>- Provides knowledge-based benefits</td>
<td></td>
</tr>
<tr>
<td>- Produces process / service benefits</td>
<td></td>
</tr>
<tr>
<td>- Produce economic benefits</td>
<td></td>
</tr>
<tr>
<td>4 = The project outcomes produce significant benefits from at least two of the above perspectives (customer, knowledge/skills, processes/services, economic/efficiency).</td>
<td></td>
</tr>
<tr>
<td>3 = The project outcomes produce significant benefits in one of the above perspectives (customer, knowledge/skills, processes/services, economic/efficiency).</td>
<td></td>
</tr>
<tr>
<td>2 = The project has a moderate impact on the above aspects (customer, knowledge, processes / services, systems, economy / profitability).</td>
<td></td>
</tr>
<tr>
<td>1 = The project has a minor impact on the above aspects (customer, knowledge, processes / services, systems, economy / profitability).</td>
<td></td>
</tr>
<tr>
<td>0 = Has no impact or not measurable.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic suitability of the project (10 %)</th>
<th>Objective Implications: The project is in line with strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 = Strategic, mentioned strategy. Applies to all functions.</td>
<td></td>
</tr>
<tr>
<td>4 = Strategic for one function or project results will benefit the whole enterprise.</td>
<td></td>
</tr>
<tr>
<td>3 = The project will respond to future competition, future competitive advantage or strategic individual action project.</td>
<td></td>
</tr>
<tr>
<td>2 = Supports the achievement of annual priorities or the implementation of the Action Plan.</td>
<td></td>
</tr>
<tr>
<td>1 = Applies only to one program area or function in a single development site.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kiiakkula/ tarinkääntyys (10 %)</th>
<th>Targeted Effects: The output / benefits of a project can achieve a competitive advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 = Critical competitive advantage or indispensable (e.g. due to changes in legislation). Implementing the project will achieve a significant advantage or respond to competition by benchmarking a “good product”.</td>
<td></td>
</tr>
<tr>
<td>4 = The project responds strategically to competition. The competitive advantage will eventually arise in the future.</td>
<td></td>
</tr>
<tr>
<td>3 = May be a competitive advantage for the future.</td>
<td></td>
</tr>
<tr>
<td>2 = The project is not mandatory, improving the existing.</td>
<td></td>
</tr>
<tr>
<td>1 = The organization already has the same kind of service that the new service would have without adding value. The new service will not bring significant competitive advantage.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
<th>Weight 20 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Needed resource (10 %)</strong></td>
<td></td>
</tr>
<tr>
<td>5 = less than 1 person, 0 - 2 Months, 10 - 50% from worktime.</td>
<td></td>
</tr>
<tr>
<td>4 = more than one person, 0 - 2 months, 10 - 50% from work time.</td>
<td></td>
</tr>
<tr>
<td>3 = more than one person, 2 - 12 Monthly/year.</td>
<td></td>
</tr>
<tr>
<td>2 = 1 to 3 person/year.</td>
<td></td>
</tr>
<tr>
<td>1 = total over 5 person-years.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding (10 %)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5 = Project budget below 20,000 €.</td>
<td></td>
</tr>
<tr>
<td>4 = Budget 20,000 - 50,000 €.</td>
<td></td>
</tr>
<tr>
<td>3 = Budget 50,000 - 100,000 €.</td>
<td></td>
</tr>
<tr>
<td>2 = Budget 100,000 - 300,000 €.</td>
<td></td>
</tr>
<tr>
<td>1 = Budget over 300,000 €.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risks</th>
<th>Weight 30 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills and experiences (10 %)</strong></td>
<td>Assess the available expertise and experience</td>
</tr>
<tr>
<td>5 = Low risk, expertise and experience can be found in your own house. The familiar way in which the challenges are known and resolved.</td>
<td></td>
</tr>
<tr>
<td>4 = Minor risk, some level of the corresponding expertise can be found.</td>
<td></td>
</tr>
<tr>
<td>3 = Managing the risk. Risk is manageable. For example, there is no experience in the house, but expertise is available / accessible.</td>
<td></td>
</tr>
<tr>
<td>2 = High risk, Full competence is not available (not even possible to get).</td>
<td></td>
</tr>
<tr>
<td>1 = Very high risk - a new thing that does not know any where.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External factors and changing environment (10 %)</th>
<th>Evaluate the external factors of the project and the changing environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 = The project is implemented internally, with no significant external risks or stakeholder groups.</td>
<td></td>
</tr>
<tr>
<td>4 = The project has external stakeholders that can influence.</td>
<td></td>
</tr>
<tr>
<td>3 = The project is implemented in a changing environment (e.g. market situation, stakeholders, legislation, funding).</td>
<td></td>
</tr>
<tr>
<td>2 = The project is implemented in a precarious environment (e.g. market situation, stakeholders, legislation, funding).</td>
<td></td>
</tr>
<tr>
<td>1 = The project is implemented in a risky environment.</td>
<td></td>
</tr>
<tr>
<td>0 = N/A.</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 21. Project prioritisation*
Thinking Portfolio® Timesheet
– Recording and reporting resource use

Thinking Portfolio Project Portfolio offers an easy-to-use solution for recording working hours on a project.

The user fills in completed hours in a weekly timesheet (Figure 22). The new design is based on user feedback we received on previous versions. The hours can be recorded on projects and respective tasks for one calendar week at a time.

The timesheet shows in a handy tooltip window hours used during the last week, month, and year.

The mobile timesheet Web app lets users record their project working hours with a smartphone (see the illustartion on page 1).

The administrative user can modify the task types of the timesheet. The tasks can also be linked to on-going development and maintenance operations. This makes it easier to steer and control an individual’s work distribution.

The person hours recorded on Thinking Portfolio can be reported using several reporting templates. If needed, the list can be exported as an Excel spreadsheet for tailored reporting needs.

The timesheet reports are useful if the organization needs to invoice based on hourly fees, internally or on client projects. We can also create a client-specific interface for transferring data into a resource management or invoicing system.

We can set up specific rules for recording hours. For example, the system can allow users to input hours only to the projects where the user role has a specific role. Furthermore, we can permit a project secretary or a project manager to input hours for other users if necessary.

Multiple Project Resourcing

Resource planning is project based activity. Multiple project resourcing enables to utilise resources from multiple projects in same view.

User selects wanted projects and then opens the resource page. After that, planned hours can be filled in.

![Figure 22. Hour reporting](image)

![Figure 23. Resource Planner page of a project and a Resource Report Excerpt](image)
Resource Planner

– Resource Allocation Planning

Thinking Portfolio allows the balancing of resource capacity based on demand, and the identification of the most critical roles and resources at any given moment.

Versatile project resource management is a standard feature of Thinking Portfolio. It starts off by defining key resources that are needed for each project task (Figure 24). During the first, idea phase a resource is typically role-based. This enables resource planning at key task level.

During the next project stage (definition or planning) a resource can be a named person. Before moving into the realization phase, a resource can be a fixed for the whole duration of the project, or for one month at a time. After binding a person to the whole project duration the resource plan can be approved e.g. for the coming three months.

Resource planning automatically calculates and takes into account a named resource’s assignments on other projects. Each person can even have an individual quota of line operation hours that cannot be used for projects.

Project resource management visualizes the resource statuses of employees with traffic lights. This helps in getting a quick overview of the efficiency of resource management at a certain point in time, or in the future.

There are many standard reports available for resource management (Figure 25). In addition, we can define client-specific reports. It is also possible to export resources data as an Excel file.

In short, Thinking Portfolio allows the balancing of resource capacity based on demand, and the identification of the most critical roles and resources at any given moment.
Task Planner
– Monitoring Portfolio Progress

Thinking Portfolio offers a flexible and easily modifiable management of tasks.

Thinking Portfolio supports the creation of diagrams, e.g. GANTT charts. The graphical presentations visualize task dates, durations, and milestones (Figure 26).

Individual tasks can have owners, priorities, and statuses (Figure 27). If required, linkages between tasks can be presented and they can be even defined to other projects. Tasks can be connected to a project phase and which allows live project progress reporting.

Milestones can signify certain financial events, e.g. points of cost control or payments to subcontractors.

Each task can have descriptive, free form text, and hyperlinks to documents contained in a document management system.

Project task planning generates reports that make communicating of project status easy and visual.
Thinking Portfolio® Snapshot
– Monitoring the development of the portfolio

Snapshot

A snapshot is a record of all the data of a portfolio at a given moment. Administrative users can save and manage snapshots on the Management menu (Figure 28).

When a snapshot is activate the user sees the portfolio as it was at the moment of the snapshot. The contents are in read-only mode.

When there are more than one snapshots available you can create trend reports from the data (Figure 29).

Figure 28. Snapshots list

Figure 29. Portfolio budget based on phases (left) and project counts in different phase (right)
Reporting
– Views to the portfolio

Thinking Portfolio’s reports crystallize the situation and future for the executive management (Figures 30-38). The reports’ view and presentation method depend on their functional purpose, and are defined customer-specifically.

A so-called Project Charter generated for every project contains, in a single report, all the information entered from the project into the system. Examples of other possible reports used in portfolio management:

- Developmental focus areas
- Project risks
- Anticipated benefits related to goals
- Effects on development areas
- Budget forecast – target vs. actuals
- Development investments
- Time schedule

Figure 30. Project prioritisation report

Figure 31. Pipeline report with ABCD classification and budget

Figure 32. One page project report
Reporting Examples

**Figure 33.** Business Case forecast of selected projects

**Figure 34.** Budgets by Project type

**Figure 35.** Operational objectives

**Figure 36.** Resource report by employee

**Figure 37.** Hour reporting for selected persons per project

**Figure 38.** Project progress report
Dependency-wheel

Dependency-wheel (Figure 39) visualises portfolio’s inter-related projects. One can select and see how e.g. one project is dependent on the other projects.

Cost pivot report

Cost pivot report could be shown as a basic table or a heatmap where the values are colour coded based on definitions (Figure 39). The calculation method for values could be specified, for example Sum or Count. The layout of Pivot reports could be easily altered based on needs.

Schedule report

Schedule report (Figure 40) is a Gantt-diagram, where subgoals and main milestones can be easily seen.
Idea Portfolio

– A Managed Process for Ideation

All development projects do not stem from a necessity. Instead, they originate from an idea of doing things differently. The challenge of the management is to collect ideas systematically, evaluate and prioritize them, and finally, turn them into project proposals.

The purpose of Thinking Portfolio Idea Portfolio is to make this process easier and to incorporate idea management as a part of project portfolio management.

The Idea Portfolio View

The idea portfolio view opens up from the menu of the project portfolio window. The view displays all the ideas and their key information in a table (Figure 41).

The idea view functions are similar to those of the project portfolio view. You can filter the list, select ideas individually, and sort them using column headings. You add a new idea using the “Add idea” button. Registered users of the project portfolio are granted access to the idea portfolio.

The idea portfolio view can contain, for example, the following information:

- Idea title (acts as a link to an idea card)
- Category (defined by the client)
- Idea owner
- Idea presenter
- Date of the idea
- Idea pipeline stage (phases are client-specific)
- Status of the idea
- Number of likes
- Number of comments (comments become visible by clicking the count)

Figure 41. Idea Portfolio example
**Idea Card**

An idea card presents an idea and allows commenting and liking the idea (Figure 42).

The presenter of the idea writes a short description of the idea and evaluates its value using the criteria that the organization provides.

An idea card can contain, for example, the following information:

- A descriptive title
- Description (can include hyperlinks)
- Category (client-specific)
- Attachments
- Value score
- Risk evaluation
- Related ideas

The users of the idea portfolio can like an idea or comment on it. A user has an option to follow up on the idea as it receives more comments.
Many organizations and companies face challenges as projects are managed using different methodologies. How can differently managed projects, programs and continuous development be brought under the same portfolio and managed in a consistent way?

Thinking Portfolio has created new functionalities and views to visualize agility in the project portfolio, to support management decision making and communications.

The basic principles of agile development have been applied to Scrum teams, but these practices have only seldom been taken into use in portfolio management. One of the highest priorities of the management, taking agility to the portfolio level, is leading the cultural change. Regardless of the framework, the top management responsibility is to ensure value creation and – using prioritization – ensure that right things are done at the right time and at the right quality.

From strategy to epics

Epics – large entities that are derived from the business strategy – are in the core of agile portfolio management. In the first example view (Figure 43), high-level progress of the epics is followed up (time/function). The progress of the epic is easily detected visually and a single epic can be opened into its own “Epic card” where the properties of each epic – such as features and user stories - can be maintained. Adding new epics or editing the existing epics from the buttons in the top ribbon is easy.

Examples: Sprints and Kanban view

A project using agile methodologies comprises of a team which works in an iterative and incremental way. The end result will be delivered step by step during several development phases (sprints). Each sprint produces a viable and defined version of the product. With this method, the team is able to create value to the customer as quickly as possible. At the same time, the level of predictability and risk management will improve. The way of working during the sprints enables fast reactions to requirement changes as the project moves forward.

Figure 43. Progress of epics by quarters
In the second example view (Figure 44), the progress of sprints and their contents (User Stories, features) is followed up. Agile methodologies usually recommend User Stories for requirement management. The focus in the User Stories is business value.

Third example view (Figure 45) is a visual and functional Kanban board. The Kanban board can be applied to the management of portfolio level, product portfolio and tasks. The backlog receives all the features for the delivery pipeline. One of the main priorities of the Kanban board is to ensure continuous delivery. This means limiting the number of WIPs to avoid bottlenecks. The items are chosen to the delivery pipeline through value definition and continuous prioritization. Prioritization is a key factor in omitting waste and ensuring that the focus remains on value creation.

Good communication is in the core of agility. To ensure continuous value creation and feature flow, it is essential to maintain open channels of information, encourage continuous learning, facilitate user participation in co-design and retain a clear view of the project targets and priorities.
Customisation

Thinking Portfolio is customized to meet the customer’s portfolio needs, as well as portfolio management processes and concepts. The user interface can be in the Finnish, Swedish, English, or Dutch languages (Figure 46).

Conceptual independence and parameterization have been the starting points for the design of Thinking Portfolio’s database structure. Customers can personally modify the tool facilitating the maintenance of the directory fields visible in different user interfaces.

Different portfolio models

Thinking Portfolio’s basic components – the widgets – facilitate the construction of various portfolio models. The widgets’ content can be parameterized according to the concepts used by the customer.

The application’s database solution has designed for maximum flexibility; customer-specific customization requires no structural modifications in the database.

Thanks to its structural solution, customizing the application customer-specifically for Proof of Concept use is rapid.

Figure 46. Example business case
Implementation and Use

User interface

Thinking Portfolio is a completely browser-based application functioning with the latest versions of IE (11-), Edge, Chrome, Firefox, and Safari, as well as with iPad browsers.

User management

The specification of Thinking Portfolio’s access control is role-based (Figure 43). With the Project Portfolio, the roles can be, for example, a member of the board of directors, a member of a steering group, project manager, and so forth. The role nomenclature is determined customer-specifically.

The portfolio application has one or several administrators who have extended rights, for example, the right to establish new projects. An administrator can be designated for the entire application, or for example, for the portfolio of a certain business area.

Project-specific work progress models describe each user’s role and access to certain stages of a project. After logging into the system, the user can, depending on his or her designated project role, either browse, report, edit, or approve the results of a project stage.

User identification

The application supports two different access control methods: Windows identification, and internal user ID and password identification.

In Windows identification, the system’s user name is the same as in the ActiveDirectory. Traditional user identification can be used, for example, when external Internet users are accessing the applications.

Connections to external systems – ThinkLink

Thinking Portfolio facilitates the construction of connections to external systems such as SAP, M-Files, Kronodoc, Reptronic, Sharepoint, Aditro and Efecte.

The URL addresses written in the application’s text area fields, for example, on documents, automatically change into hyperlinks.

Figure 47. User management view
**Our Service Model**

Thinking Portfolio provides a convinient hosting-solution. Our cloud services all data is located in Finland. In that case customer does not have to install any application as a part of their IT environment, and the most up-to-date version of the application is always available.

Usage and maintenance are managed over secure connections. Limiting the use to certain IP addresses is also possible.

The service model includes telephone and e-mail support for the customer’s administrative user.

**Proof of Concept**

We recommend the implementation of our fast Proof of Concept project (PoC) with the customer. After a few meetings, we will customer-specifically implement an application that be accessed from our server for a trial period of one month.

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Portfolio Landscape

- Application portfolio
- Service portfolio
- Project portfolio
- Product portfolio