Project Portfolio

Thinking Portfolio® Whitepaper

Multi-Portfolio Platform HUB – centralised resource planning at the core
SmartTables – flexible, versatile, dynamic tables
Updated Dashboard
Updated reports

Project Portfolio Whitepaper

Contents

Thinking Portfolio® Project Portfolio
– A tool for Strategic Management

Thinking Portfolio® is a practical tool for strategic management. The portfolio management model supports business-driven planning and decision-making based on a firm overall grasp.

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.

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 technical solution facilitates the implementation of various portfolio management applications.

The portfolio application presented here is a strategic level management tool for development projects.

Benefits of Thinking Portfolio®

Sector independent	Improves management by information and decision making	Adapts to each organization's own operating methods
Over 40+ portfolio templates with built-in interconnectivity	Independent number of users – fixed price for an unlimited amount of users	Versatile, visual reporting - already over 800 different report templates
Allows multiple simultaneous use of different language versions	Easy-to-use browser interface	Quickly to be implemented

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?

Enhances decision-making	Boost the efficiency of advance planning	A tool for risk 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 it 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.

Business Strategy

For example

Thinking Portfolio® Multi-Portfolio Platform HUB

For example

Product Portfolio

Application Portfolio

Service Portfolio

Customer Portfolio

Process Portfolio

Sustainability Portfolio

Compliance Portfolio

Registry Portfolio

Asset Portfolio

Project Portfolio

Development Portfolio

Strategy Portfolio

NPD/R&D Portfolio

Risk Portfolio

Infrastructure, applications, services, personnel, processes

Activity development and investment projects, Agile projects

Research, ideas, scenarios

Present

Near future

Future

Continuous Development

Figure 2. The strategic portfolios

Thinking Portfolio Multi-Portfolio Platform HUB means to take advantage of several portfolios in communication and decision-making. HUB makes significantly more versatile user management possible and makes introduction and use of several portfolios more efficient.

Thinking Portfolio® Multi-Portfolio Platform (HUB)

– centralised resource management, resource planning and task management

Centralized user management

Centralized resource planning

Centralized hour recording

thinking portfolio® HUB

Centralized task management (Kanban)

Centralized risk management

Centralized reporting and prioritization

Project Portfolio | Risk Portfolio | Investment Portfolio | NPD Portfolio | R&D Portfolio | Application and Technology Portfolio | Development Portfolio | Service Portfolio | Customer Portfolio

Benefits of Multi-Portfolio Platform HUB

Makes the implementation of several portfolios more efficient

+ One database, the connection of the information model of several portfolios to each other
+ Makes use of elements already in use such as user management

Versatile reporting possibilities

+ Enables reporting across portfolio boundaries
+ Produces a more in-depth picture of the situation

More versatile user management

+ Description of abilities
+ Workload
+ Resourcing
+ Description of competence

Resource planning, approval of resourcing

+ Total resourcing for all portfolios
+ Transparency of resourcing
+ Possibility to reserve time for line work
+ Hourly records in one place for all portfolios

Connected risk management between portfolios

+ Risk analysis of different portfolios
+ Review of risks across portfolio boundaries

User management of different portfolios for the main user

+ Enhances the management of access rights
+ The end user has the opportunity to complete his own information

Task management brings efficiency to monitoring

+ Better transparency for the user to defined tasks across portfolio boundaries

Multi-Portfolio Platform HUB

Thinking Portfolio's new HUB platform allows for even closer interconnection of the data models of multiple portfolios. At the core of Thinking Portfolio's Landscape HUB, implemented with the help of the HRD portfolio, there is centralised user management, which can be parameterised in a considerably more versatile manner than before. The deployment and use of new portfolios will be more efficient as well. Thinking Portfolio Landscape HUB offers the following benefits:

+ Makes the user's competence transparent

+ Centralised and simple user management for multiple different portfolios

+ Centralised and easy visibility to resource management across different portfolios

+ Support for the development discussion process

+ Easier management of list values

+ Overall resourcing for all portfolios (projects, absences, holidays)

+ E.g., a centralised Kanban dashboard, where tasks are placed from different available portfolios

The transition to a new platform is free of charge to existing customers in connection with the deployment of a new portfolio. The terms and conditions will not change. The Landscape HUB entity contains then the following functionalities:

+ User management of extended data model

+ Other extensions to the HRD portfolio will be implemented as change work (e.g., capability maps, HRD Dashboard, HRD meters)

Renewed user management

The new user management is based on the HRD portfolio. Previously, accessing the portfolio user management required a separate administration interface. For example, user IDs were edited through it. In the new platform, user information is in its own portfolio, where the data is also managed.

New opportunities

When users are in their own portfolio, a more extensive portfolio model can be introduced. The data model can then be modified flexibly, as needed. For example, competence areas can be defined for users. The views can be fully parameterised, as needed. For example:

+ Competence management: searching for a user based on competence area

+ Detailed contact information

+ Resourcing in one portfolio – other portfolios use the resourcing portfolio data

Administrator's perspective

+ User management is transferred from the current user management interface to its own portfolio

User's perspective

+ Hour entries can also be made through one portfolio into other portfolios in the organisation

+ Centralisation of Kanban task management under personal "MyKanban" or "MyDashboard" – the user can easily find all their tasks defined in different portfolios in one place.

Figure 3. Dashboards of the renewed user management: user list, basic data, functionalities, access rights and competence map.
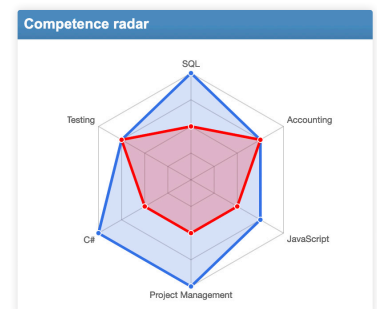
Thinking Portfolio® Project Portfolio Key Functionalities

— Navigation, filtering functionalities, project card and panels

With Thinking Portfolio's® Project Portfolio, the organization gets the skills for quick decision-making, agile change management, business orientation and risk analysis. Thinking Portfolio's® visual presentation and browser-based user interface make it easier to adopt. Using the system does not require technical courses or manuals.
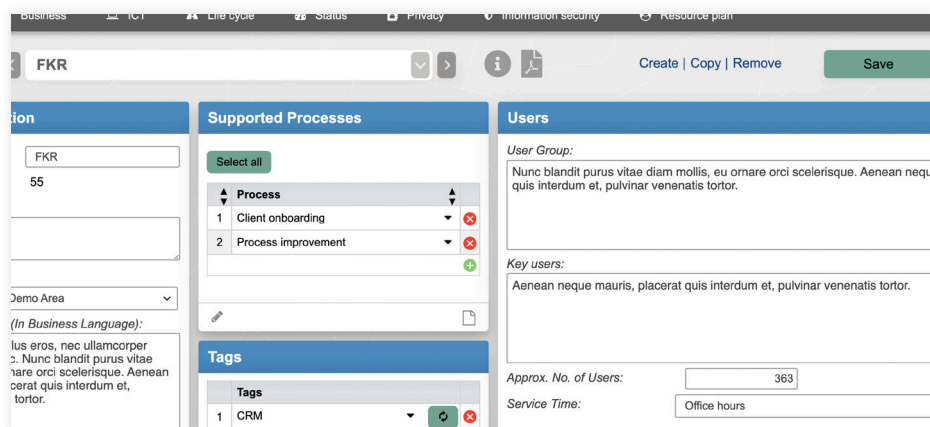
Navigation

Two-level menu structure
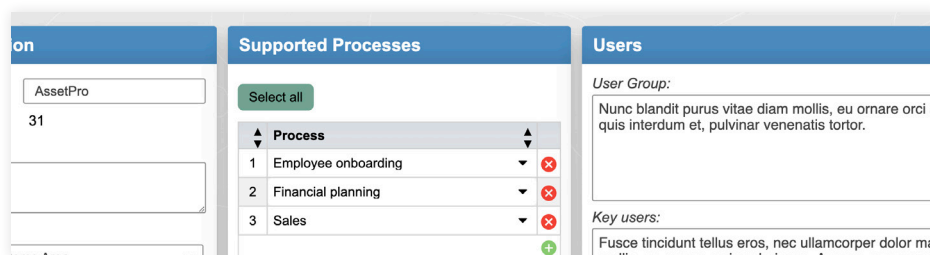
Filtering functionalities

Flexible filtering aspects
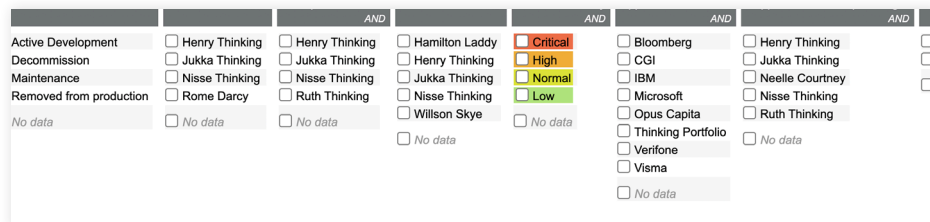
Project cards and panels

The project pages are composed of panels structuring the data from different points of view

The Main Views of Thinking Portfolio® Project Portfolio

The Project Directory view

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 list of projects with each line having ao. project schedule as a segment diagram. Project phases and the decision points stand out clearly.

Time sheet

The timesheet is personal, the working time spent on the project record- and reportingview.

Task Kanban

This view brings together all the tasks included in a portfolio. They can be viewed either on the portfolio level or by application. The Kanban feature is great if you need to administer application development roadmaps or tasks in different life cycle stages.

Project budget, Forecast and Actual
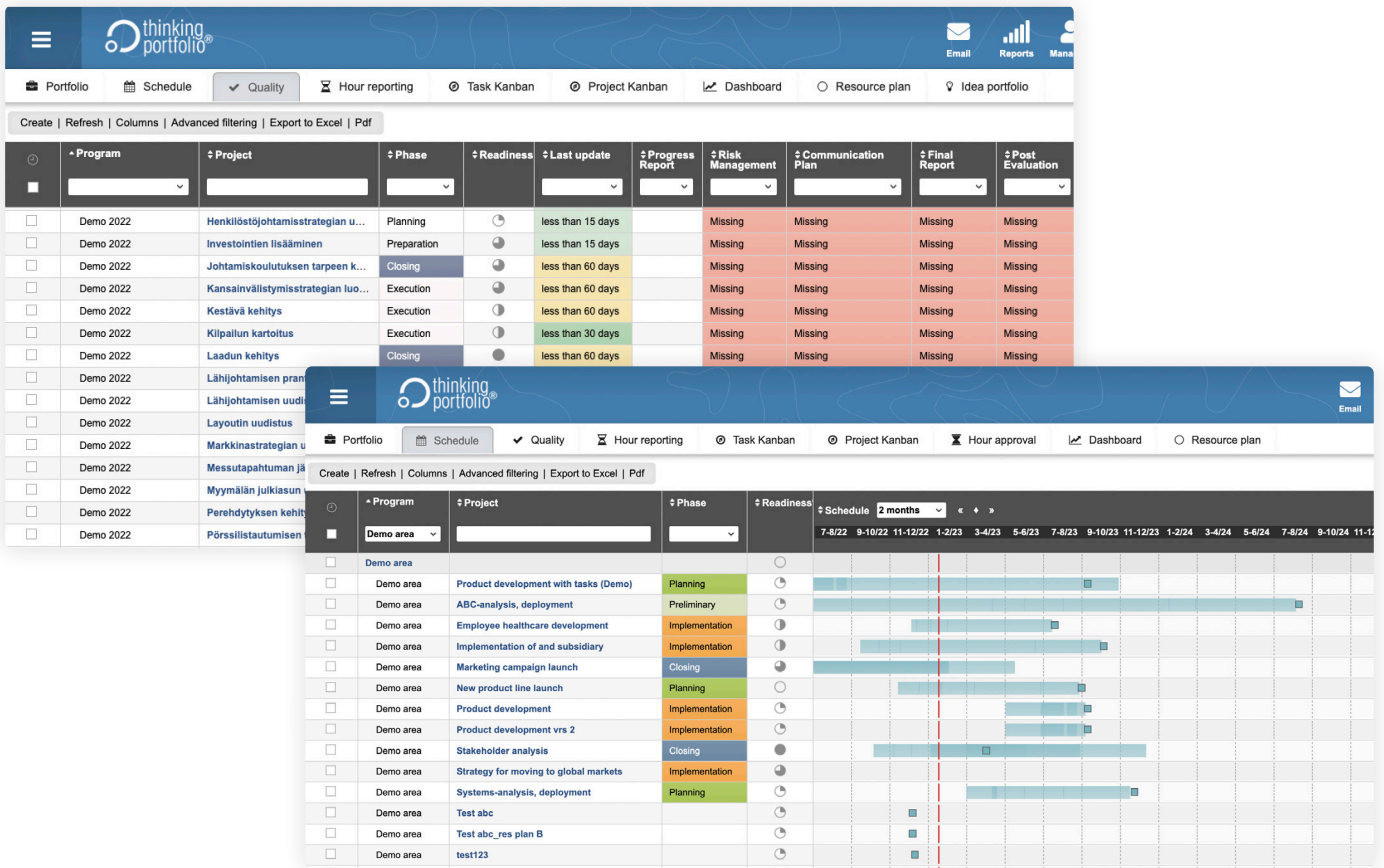
MyDashboard

MyDashboard offers a personal view into the most important reports to follow (Figure 3). Separate report views can be created for different needs, and thus, for example, a project manager can create a ready view for the reports shown to the steering group and project team. With MyDashboard, the administrator can create reporting views visible to everyone.

The management of dashboards has become more versatile. The administrator can now publish a dashboard visible to everyone, and users can use it as basis to modify a version that best meets their needs, visible only to them.
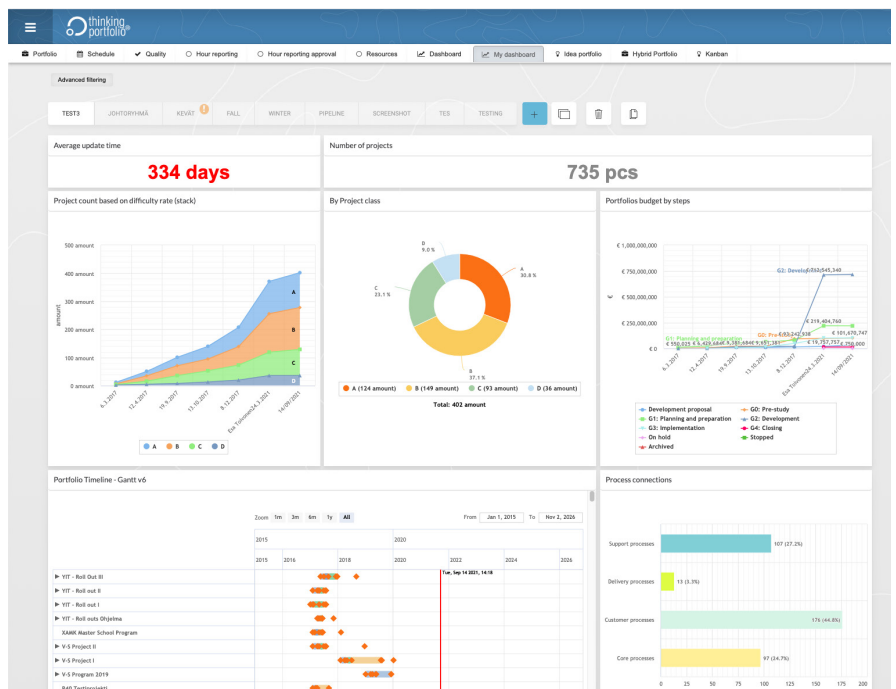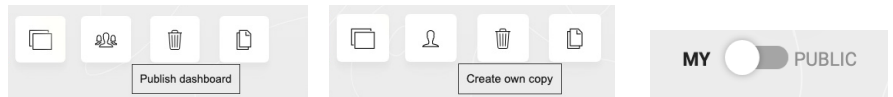
Figure 3. MyDashboard

Project Pages and Panels
— The Project-specific Information

So-called panels are Thinking Portfolio's building blocks. Currently, there are around 800 different of them in our library. Following are examples of some of the most frequently used panels.

Resources	Risks	Budget	Calculations	Logs	Smart Templates
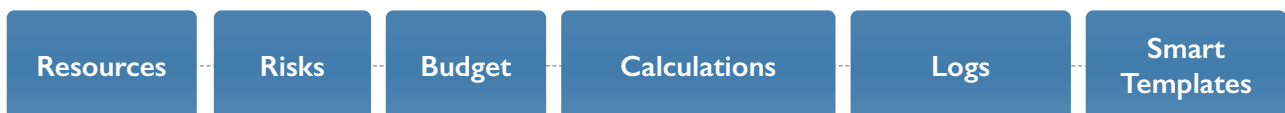
Project risks

The risks panel (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 panel 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 can contain links, for example to intranet pages or project documents. The Project Log is printed out as a Project Charter document, like the information from all other widgets.
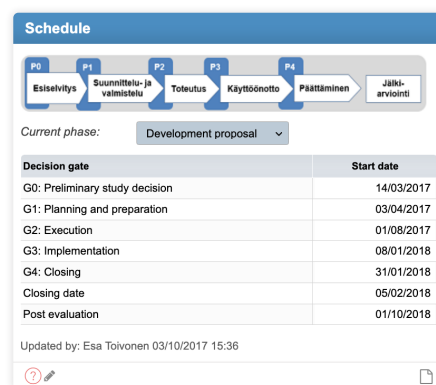
Figure 5. Time schedule

Figure 4. The risks panel
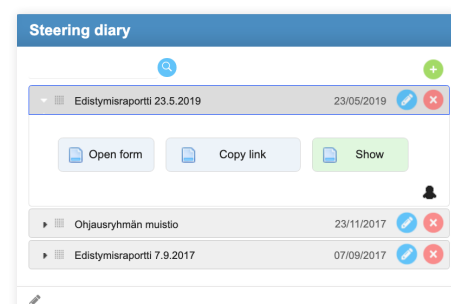
Figure 6. Steering Diary

Budget

The Budgeting panel presents the project's costs (Figures 7-8). 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 panels 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.

Budget, estimate and cumulative actual		
« » Budget €	2020	2021
Internal work (€)(50€/hour)		
External work (€)		
Software / Licenses		
Hardware (€)		
Other costs (€)		
Total		
Internal work (md)		
« » Forecast €	2020	2021
Internal work (€)(50€/hour)		
External work (€)		
Software / Licenses		

Figure 7. Project budget, actuals and prognosis

Supplier	Type	Original Budget	Updated Budget	Forecast total	Actual total	1 / 2023		2 / 2023		3 / 2023		4 / 2023		
						For.	Act.	For.	Act.	For.	Act.	For.	Act.	
LTC-Otso ⌄	Software / Licenses (€) ⌄	25,000	20,000											✗
KnowIt ⌄	Software / Licenses (€) ⌄	50,000	60,000											✗
KnowIt ⌄	Software / Licenses (€) ⌄	35,000	40,000											✗

Figure 8. Project budget realization by quarters

Copy Budget to Budget Decision						
« » Last Forecast (baseline) (€)	2022	2023	2024	2025	2026	Total
Investment Costs	5,000	5,000				17,000
Operating Expenses	0	0				0
Savings	3,000	3,000	3,000	3,000		15,000
Profits						
Total/Year	**-2,000**	**-2,000**	**3,000**	**3,000**		**-2,000**

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 panel.

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 panels 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.

Figure 10. Benefits map

Figure 11. Strategic Goals

Figure 12. Connection to processes

Figure 13. Strategic Objectives

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.

Docu Templates

Smart Templates are Office document templates that can be opened in the porfolio for local editing.

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 emphsize the criteria). Decision-makers can utilise these evaluations when priorisating.

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.
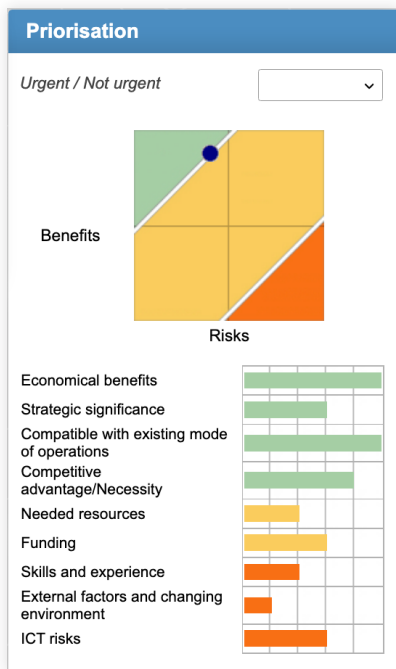
Figure 19. Project priorisation

Figure 20. 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.

Versatile hour reporting
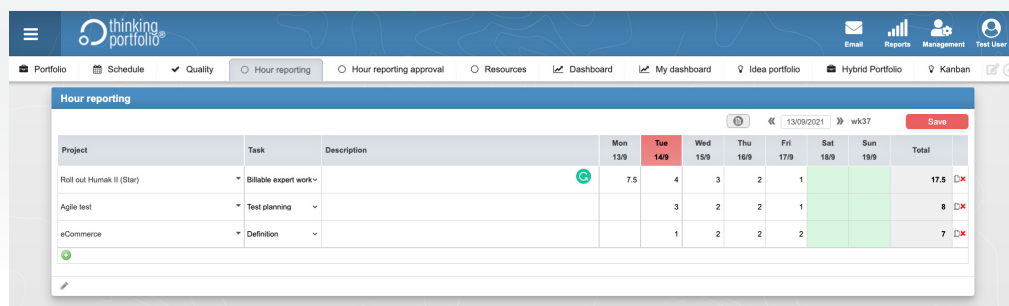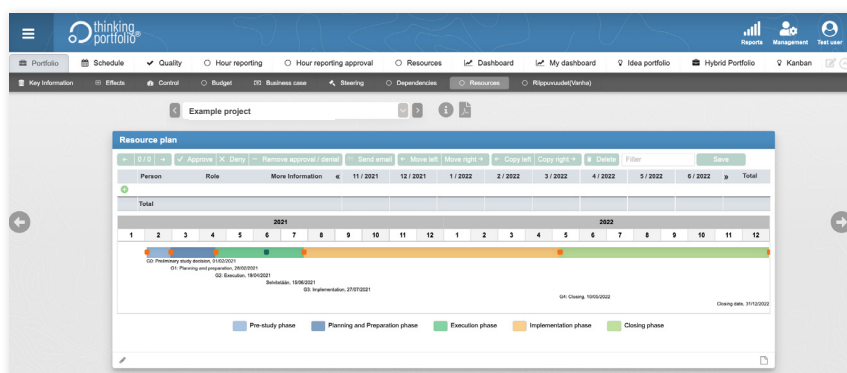
Figure 22.
Hour reporting

Figure 23.
Resource Planner page of a project

Multiple Project Resourcing

Mass resourcing

A convenient feature in projects where the standard amount of work needed for the selected period is known per person/project.

User selects wanted projects and then opens the resouce page. After that, planned hours can be filled in. It shows now resource rows and monthly columns of the projects in the basket, where the planned workloads can be recorded.
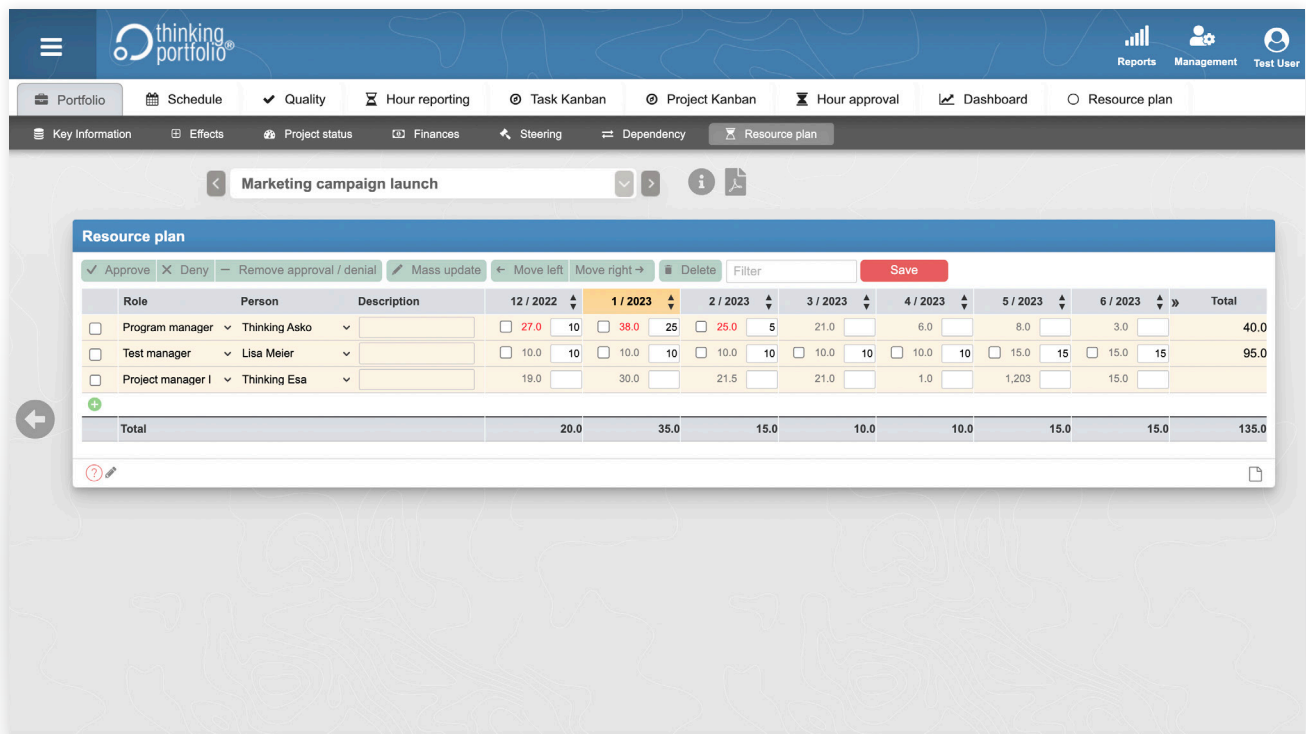

Figure 24. Multiple Project Resourcing view

Resource Planner
— Resource Allocation Planning

Versatile project work resource management is Thinking Portfolio's® **standard feature. Resource Planner enables snapshot resources from use** **at a specified time or a desired period into the future.**

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.

Figure 24. Resource plan

Figure 25. Resource report

Task Planner

— *Monitoring Portfolio Task Management*

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.

Figure 26. Tasks and milestones

Figure 27. GANTT chart

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:

+ Prioritization of projects
+ Development priorities
+ Project risks
+ Anticipated benefits in relation to goals
+ Effects on development areas
+ Budget forecast – goal in relation to reality
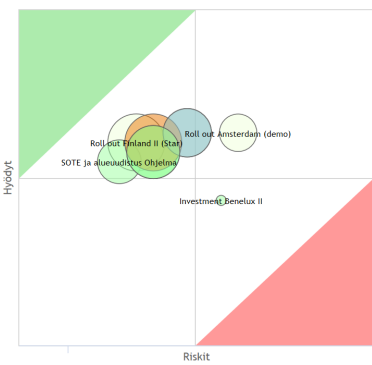+ Development investments
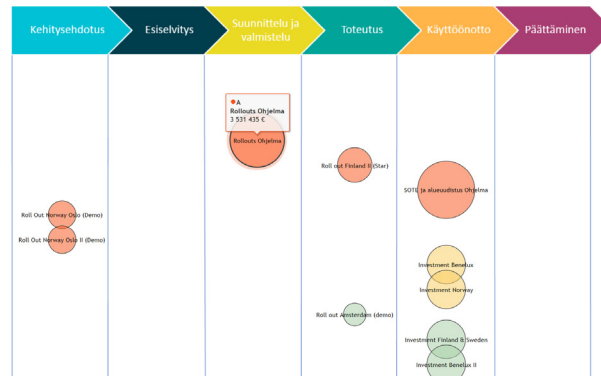+ Schedules

Figure 30. *Project prioritisation report*

Figure 31. *Pipeline report with ABCD classification and budget*

Product development with tasks (Demo)

Organization	Owner	Project Manager	Project type
Thinking Portfolio Demo Area	Ruth Thinking	Teemu Thinking	Delivery

Budget	Forecast	Actual	Forecast 2022	Actual 2022	Forecast 2021	Actual 2021
107,500	78,800	51,650	53,800	51,650		

Schedule	Scope	Quality	Dependency	Costs	Resources	Overall status

Status report

Integer venenatis erat accumsan neque tincidunt, vel vestibulum sem semper. Maecenas non tincidunt orci. Donec ultricies vel massa ac tristique. Sed nisl lorem, sollicitudin sed erat a, volutpat tincidunt velit. In imperdiet frin.

Main tasks for the period under review

Aenean molestie tortor vitae laoreet consectetur. Fusce tincidunt tellus eros, nec ullamcorper dolor maximus nec. Nunc blandit purus vitae diam mollis, eu ornare orci scelerisque. Aenean neque mauris, placerat quis interdum et, pulvinar venenatis tortor.

The main tasks of the beginning period

Nunc blandit purus vitae diam mollis, eu ornare orci scelerisque. Aenean neque mauris, placerat quis interdum et, pulvinar venenatis tortor.

Actions expected from management

Fusce tincidunt tellus eros, nec ullamcorper dolor maximus nec. Nunc blandit purus vitae diam mollis, eu ornare orci scelerisque. Aenean neque mauris, placerat quis interdum et, pulvinar venenatis tortor
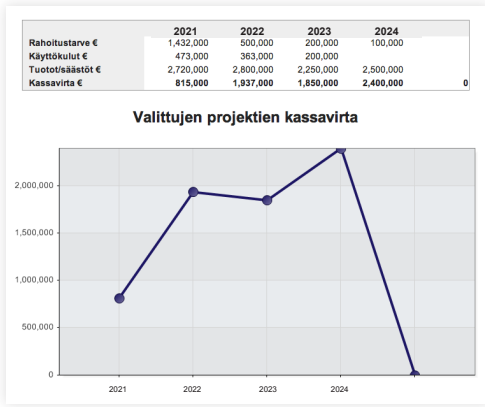
Figure 32. *One page project report*

Reporting Examples
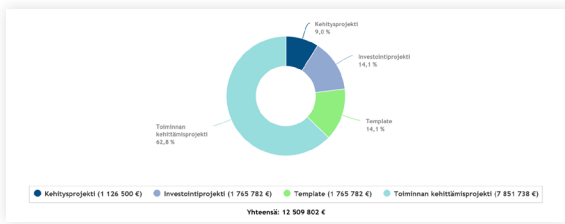

Figure 33. Business Case forecast of selected projects
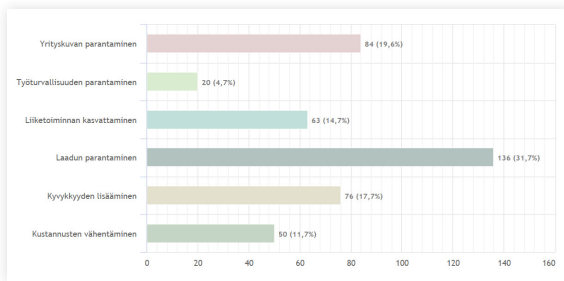

Figure 34. Budgets by Project type

Figure 35. Operational objectives

Figure 36. Resource report by employee

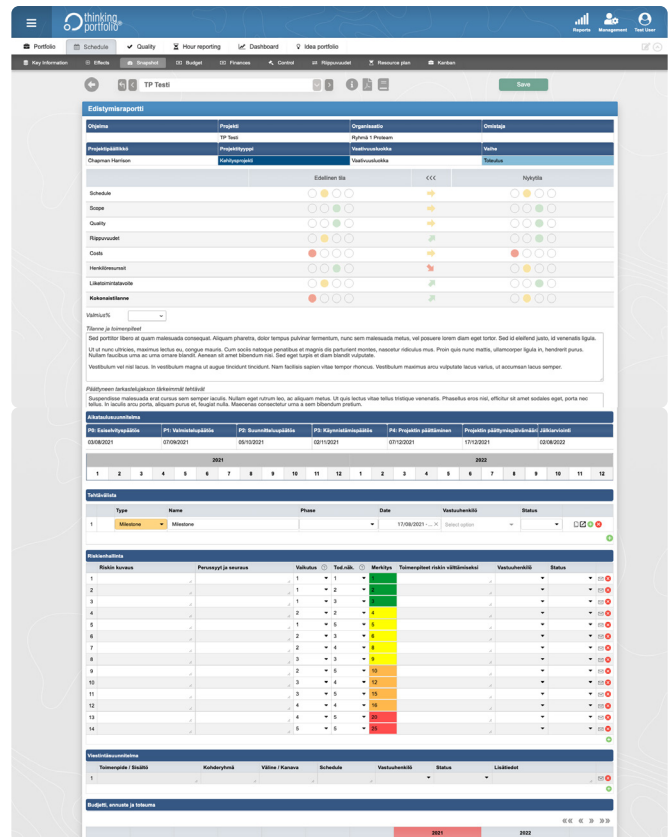Figure 37. Hour reporting for selected persons per project

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. The to be calculated variable field defines whatvariable is added to the table. The value can be anything of the variables defined in the Pivot-Table,
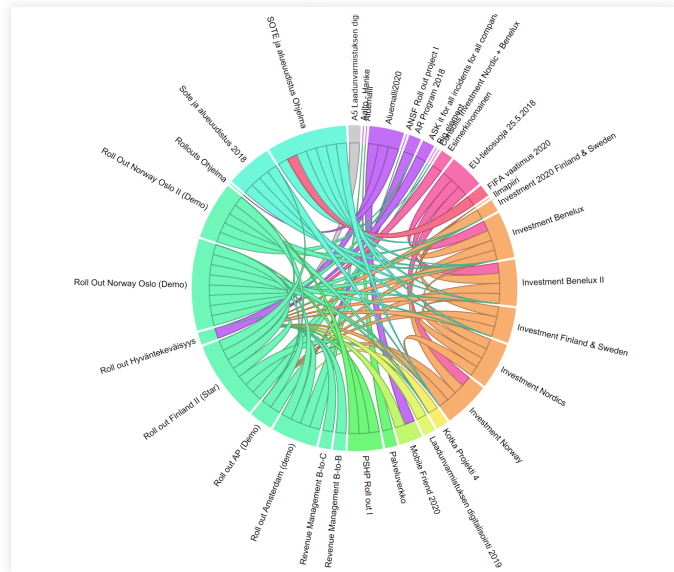

Figure 39. Dependency wheel report

OnePager

OnePager report (Figure 41) was renewed visually, and functionalities were also developed at the same time. The StatusBoard panel can now also be used with OnePager.
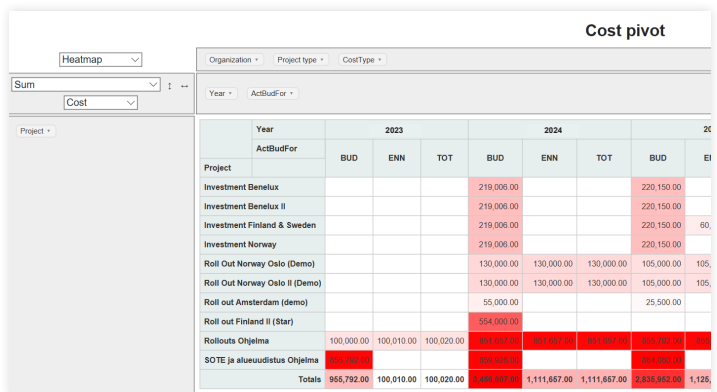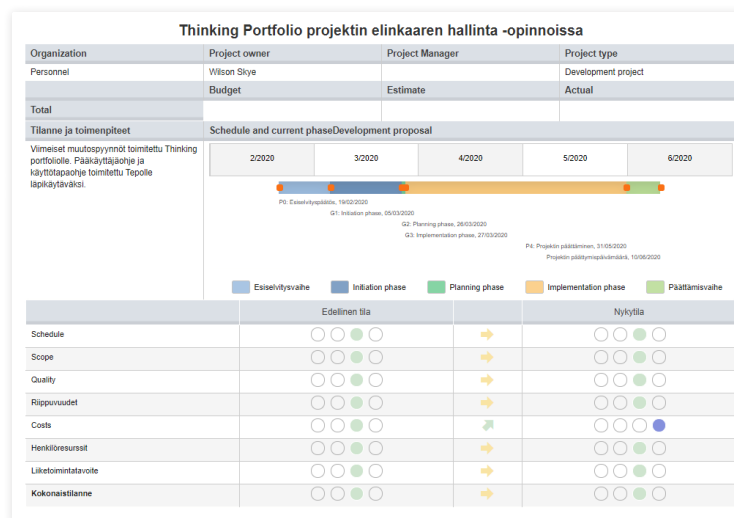

Figure 39. Cost pivot report

Figure 41. OnePager report and StatusBoard

Reporting examples

Map Report

A new report type (Figure 42), which allows presenting the data on a map.

+ Names of countries, continents
+ The point size can be specified
+ Automatic zooming
+ Grouping of nearby map points

Monte Carlo simulation

Monte Carlo simulation (Figure 43) and charts typically related to it, for example, frequency graph (or histogram) and cumulative graph.

The example in the figure displays two risks defined by triangular scattering, from which a graph was calculated that reflects the probability of the outcome (histogram). In addition, there is a cumulative graph, where at point 50%, for example, there is a median for the outcome.

The calculation and graphs can also be used in the assessment of project costs or profits, for example.

Total resource demand by person

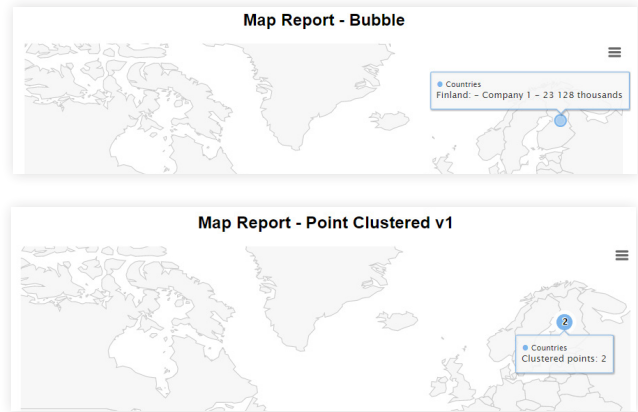Total resource demand by person reported conveniently (Figure 44).
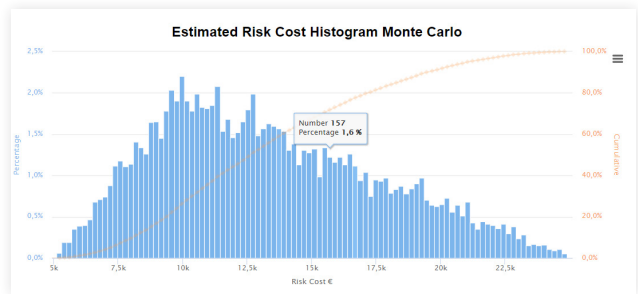

Figure 42. Map report

Figure 43. Monte Carlo -simulation

Total resource demand by person	01/01/2023 - 31/12/2023												
Asko Thinking	1/2023	2/2023	3/2023	4/2023	5/2023	6/2023	7/2023	8/2023	9/2023	10/2023	11/2023	12/2023	Total
Product development with tasks (Demo), (Project owner)	4	7	7	1									19
ABC-analysis, deployment, (Program manager)		1	1	2	1		1						6
eevan testiproggis, (Test manager), lyf		1	3		6	3	3		3				19
New product line launch, (Program manager)	8	10	10	3	1								32
test123, (Test manager), role1	1	1											2
Asko Thinking, Total days	13	20	21	6	8	3	4		3				78
Asko Thinking, Days available	8	0	2	12	13	18	17	23	18	22	22	18	173
Chapman Harrison	1/2023	2/2023	3/2023	4/2023	5/2023	6/2023	7/2023	8/2023	9/2023	10/2023	11/2023	12/2023	Total
ABC-analyysin käyttöönotto	1												1
Markkinastrategian uudistus, (Project owner)	8												8
Chapman Harrison, Total days	9												9
Chapman Harrison, Days available	12	20	23	18	21	21	21	23	21	22	22	18	242
Esa Thinking	1/2023	2/2023	3/2023	4/2023	5/2023	6/2023	7/2023	8/2023	9/2023	10/2023	11/2023	12/2023	Total
Product development with tasks (Demo), (Test manager)	2	0.5	5										7.5
ABC-analysis, deployment, (Test manager)			1		1	1							3
eevan testiproggis, (Resurssi)			3		600	3	3	3	3				615
eevan testiproggis, (Test manager)	5	4	3		600	10	3						625
Etätyöergonomian kehittäminen	2												2
Markkinastrategian uudistus, (Test manager)	9												9
Päivin testiohjelma, (Resurssi)	2												2
Product development, (Project owner)	4	4	4		1								13
Esa Thinking, Total days	24	8.5	16		1,202	14	6	3	3				1,276.5

Figure 44. Total resource demand by person

Gantt reports

Gantt schedule report

Schedule report (Figure 45) is a Gantt chart that shows the main project phases and milestones. The report can be filtered according to start and finish date. A Gantt chart can show the dates of project closing reports automatically and visualise the task flow of the project, connected to project phasing and situational pictures.

Gantt Roadmap report

A report for planning the strategic content of projects in the long term. Improves the usability of the Gantt report, because it shows the data in a lower space (Figure 46).

+ The lines go in order in a minimum number of rows, i.e. fit in a low space

+ The text goes on two or more rows and is cut if it is too long.

+ The text is not shown if the bar is too small

Figure 45. Gantt schedule report
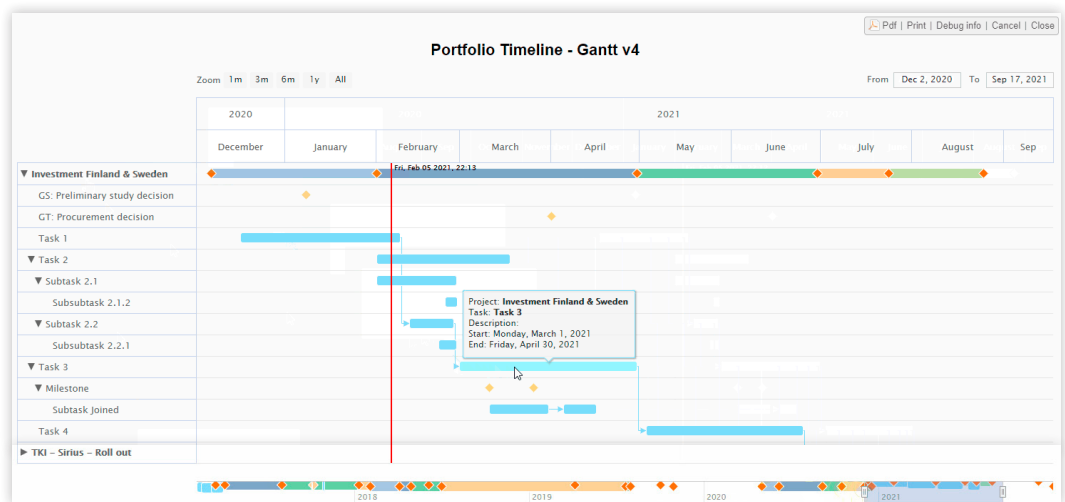
Figure 46. Gantt Roadmap report
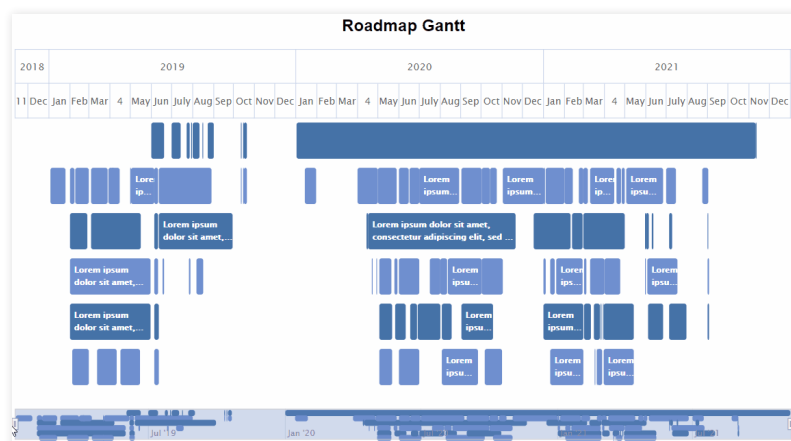
Idea Portfolio

— 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 46).

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)

Idea management as a part of Project Portfolio Management	Display all the ideas and their key information in a table	Follow ideas

Figure 46. Idea portfolio

Idea Card

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

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

An idea card presents an idea and gives an opportunity to comment on it. A user has an option to follow up on the idea as it receives more comments.

Figure 47. Idea Card example

Strategy implementation with the help of agile methods

— Visual views to support decision making

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 not widely been taken into use in portfolio management, yet. One of the highest priorities of the management, taking agility to the portfolio level, is leading the cultural change and ensuring coherent reporting of all development activities. Regardless of the framework, the top management responsibility is to ensure value creation and prioritization – to 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 Lean Portfolio Management. In the first example view (Figure 48), 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.
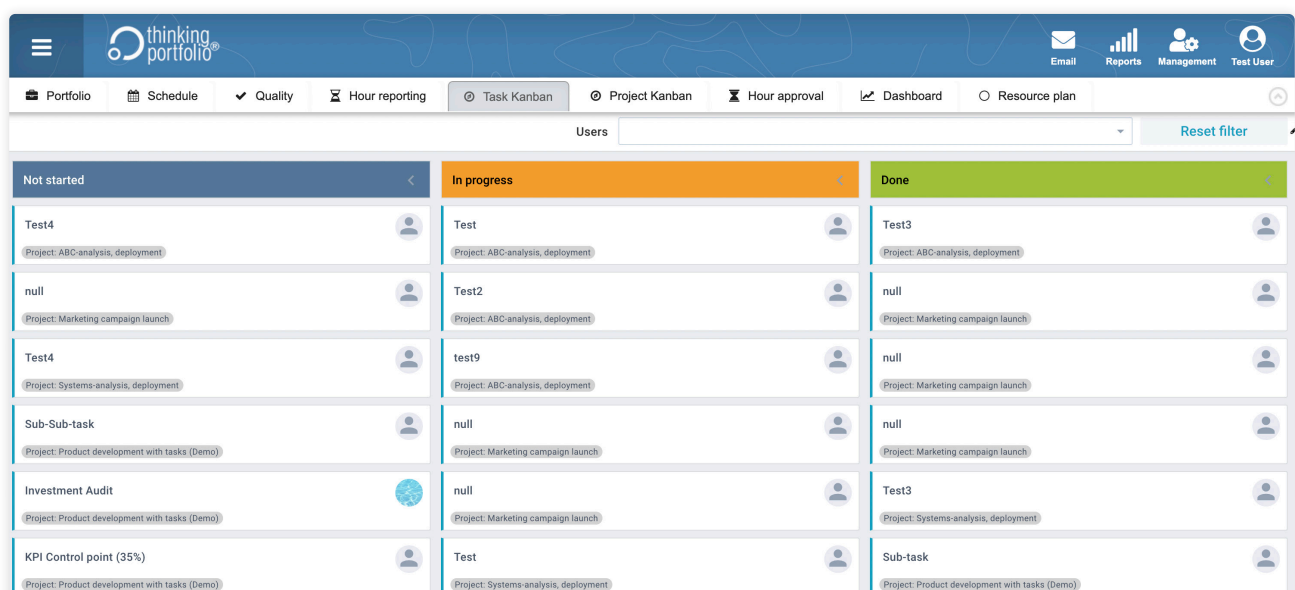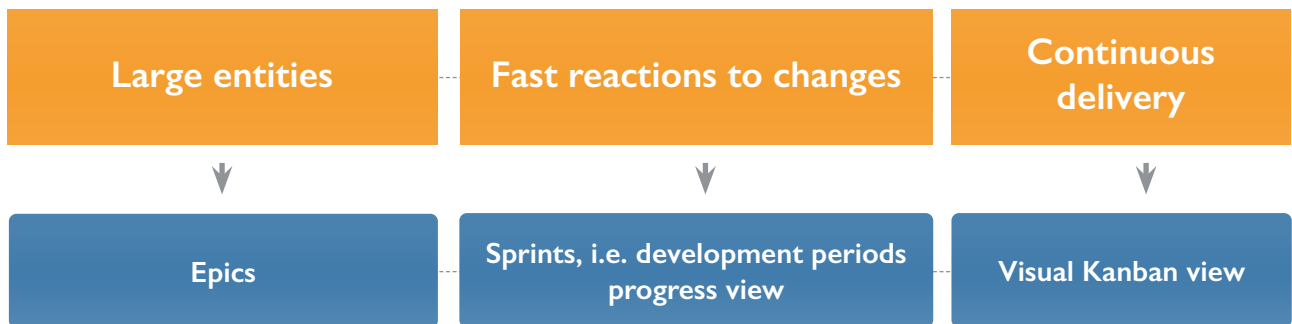

Figure 48. Progress of epics by quarters

Portfolio Views

Large entities	Fast reactions to changes	Continuous delivery
Epics	Sprints, i.e. development periods progress view	Visual Kanban view

In the second example view (Figure 49), 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 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 a retain a clear view of the project targets and priorities.
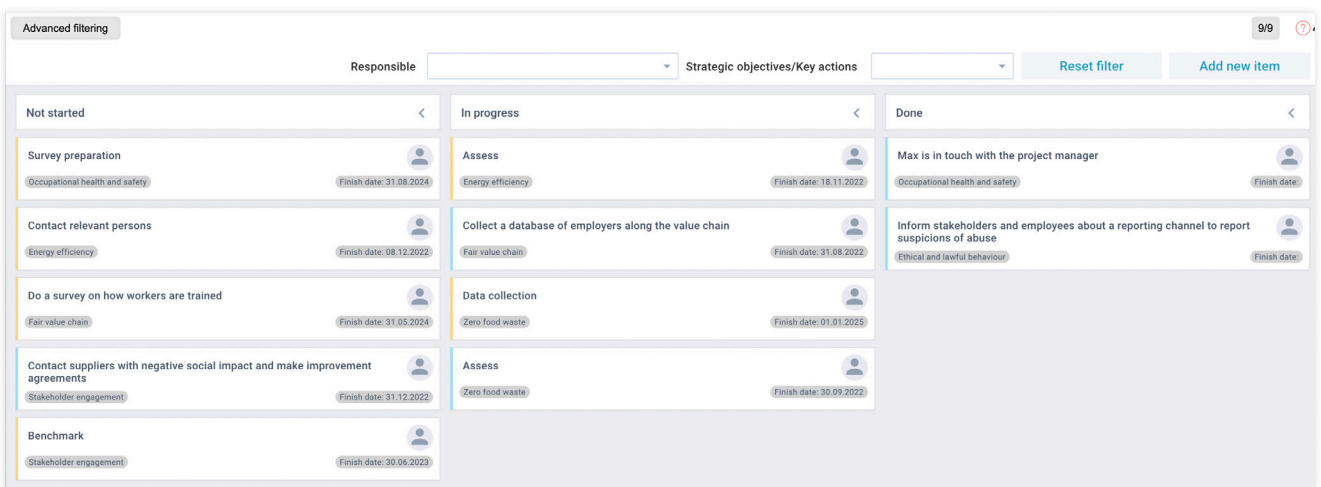

Figure 49. Sprints progression

Data protection integrated as good corporate culture thanks to portfolio management

Data protection is a common cause for the whole organisation. The direction is responsible for sufficient competence and understanding at all levels and ensures that the data protection activities are an integrated part of the working day or the good corporate culture. The data protection reform is bound to challenge us to improve our process.

Thanks to portfolio management, it is easy to implement the necessary practice on all organisational levels. Portfolio management brings a systematic and methodical approach to the management of personal information and supports the monitoring of the implementation (measuring data protection). Portfolio management can be concrete evidence for the auditor that the data protection risks are managed, identified and taken care of.

The principles of data protection, their guidance and their continuous reporting are an essential part of portfolio management guidance.

Data protection and the project portfolio

In the next few lines, we will present some elements that can be brought into the Thinking Portfolio® Project Portfolio and serve to lead the mass of data required for data protection.

The project portfolio designates a Data Protection Officer who is responsible for the lawfulness of the data security activities of the project (acquisition, active development, maintenance, archiving and abolishing) throughout its life cycle

1. The project portfolio can couple a group of projects under the same set of projects and facilitate their maintenance through one single view

2. The project card can contain a summary of the project data protection.

3. The conformity of the project can integrate its data protection

4. The life cycle Roadmap of the project can be equipped at certain intervals with checkpoints to add systematicity and methodicalness to personal data management

In the Project Portfolio panels, the "?" assistance will describe the principles of data protection, accepted by the direction at agreed intervals, and leading to privacy tracking reports for the follow-up.

Privacy criticality questions	
Will the processing involve sensitive personal data (in most cases, health-related data)?	Yes
Will the processing result in profiled, enriched or combined personal data?	Yes
Will the processing involve systematic monitoring of individuals, either technical or physical?	No
Will the processing involve advanced methods, such as location data processing or biometric authentication?	No
Will the processing specifically involve data concerning persons under 13 years of age?	No
Will real personal data be used in systems development testing?	Yes
Will the system be accessible from the public internet?	No
Will the processing involve cookies?	Yes
Has a DPIA already been performed on the system/process?	Yes

Personal data processing

Does the system process personal data?

Yes

System name

Service Criticality

1	Critical	●
2	High	○
3	Normal	○
4	Low	○

Most critical: Yes

Figure 50. Panels of the Project Portfolio related to the data protection

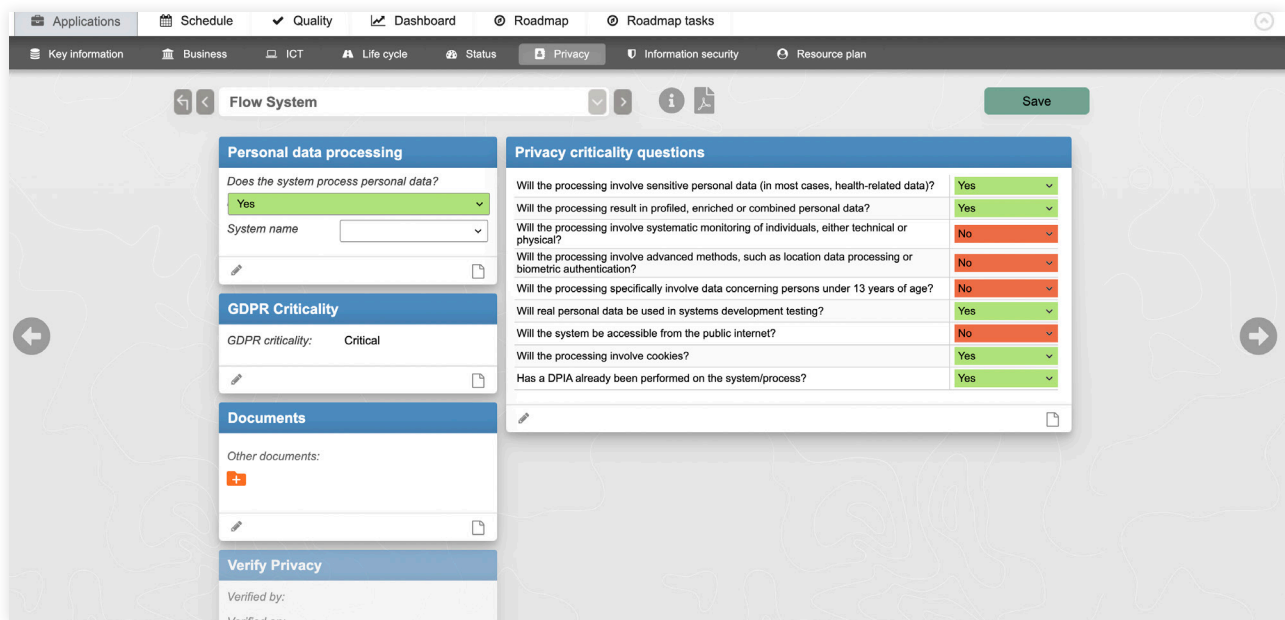# Data protection as a theme in the project portfolio

Figure 51. Data protection tab

Data protection

The Data protection tab (Figure 51) describes the processing of personal data in the application, the basic information on data protection, data protection specifications and links to the subtab reports, like data protection classification and privacy statement. You can filter the contents of the portfolio based on the information visible in the picklists in the fields of Personal data processing and Data protection specifications. You can pick up, e.g., all applications processing any personal data.

Data protection classification

The report Data protection classification is implemented as a subtab sheet, selectable from the Data protection tab. The report describes the interdependencies of the applications from the point of view of data protection. In the example, the figure (Figure 52) shows the application called Work shift planning, which is using data from the Human Resources application. This sheet would also describe any external data sources and the transfer of data into other internal applications. The report Data protection classification can also be saved in PDF format.

Figure 52. Data protection classification

More benefits for data protection management in the multi-portfolio environment

Although the data protection requirements can be managed from the point of view of an application, the multi-portfolio environment gives undeniable additional benefits through its project, service and risk portfolios. Portfolio management allows for limited individual access rights and roles, ensuring the implementation of data protection inside the

The application portfolio data model can incorporate a connection to the services necessary to demonstrate why personal data is worth processing inside the system. Furthermore, the application portfolio can be linked with the project portfolio, in order to estimate the data protection requirements brought about by the projects, also in advance, as it might be the case.

Data protection report

The statemen describes the status of the following data protection elements:

+ Rights of the individual
+ Purpose
+ Data storage, transfer and archiving
+ Data security and its administration
+ Consents given and their life cycle management
+ Other privacy requirements

Privacy policy statement

The portfolio can contain, under an appropriate tab, a customer-specific Privacy policy statement, from which a Privacy policy statement report can be created. It can be saved in the day book as a snapshot that can't be modified later.

On the service pack level, access rights can differ from those on a single service level, if the data controller wishes to use role-based cropping.

Figure 53. *Data protection report*

Figure 54. *Privacy policy statement*

Customisation

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, German, or Dutch languages (Figure 55).

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.
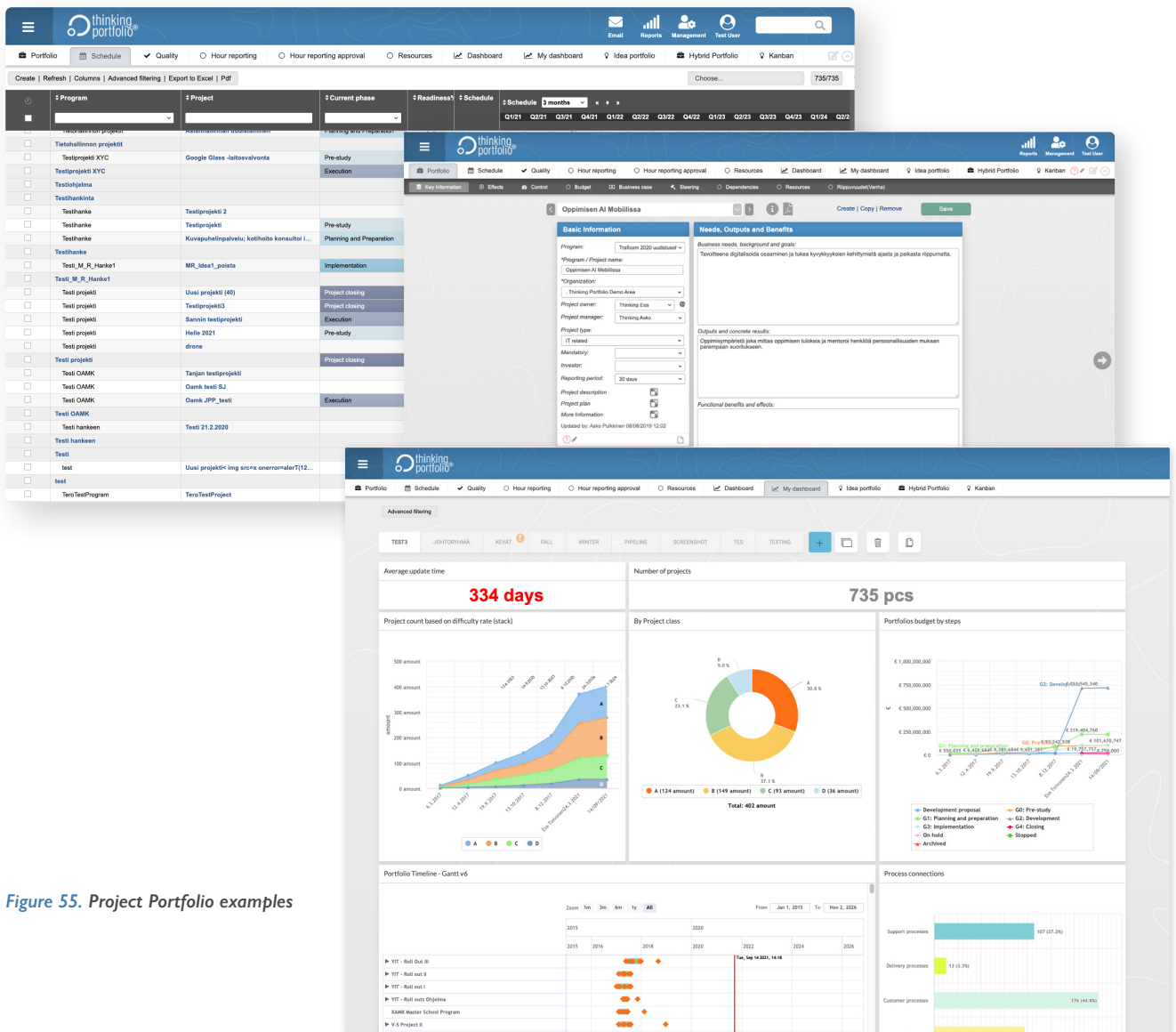

Figure 55. Project Portfolio examples

Deployment and use

User interface

Thinking Portfolio is a fully responsive browser-based application, allowing its mobile use. It is compatible with the newest browsers.

User management

The access rights in Thinking Portfolio are defined role-based (Figure 56). Roles can include CIO, Data Architext, Application Owner, Technical Administrator, System Administrator, Viewer User etc. The role nomenclature will be customer-specific and can be maintained by the customer's Administrator.

Each Portfolio has one root user or more, with the largest access rights, e.g., App Startup permissions. The root user can be specified for the whole portfolio or the portfolio of a given business division.

After logging into the system, the user is allowed, according to their role, to only view and report certain data in the application, or edit the data.

User authentication

The application supports two ways of user authentication: Microsoft AD authentication and the in-app username + password authentication.

Federated single sign-on (ADFS / Azure AD)

The single sign-on is based on Microsoft Active Directory Federation Services (ADFS), and Thinking Portfolio also supports SAML 2.0 and Azure AD solutions

When the user arrives at the sign-on address defined for the company, the user is redirected to the company's own authentication service. After logging in with the organisation's username, the user will be redirected again to the Thinking Portfolio service. If the user is already in the company's own authentication service, there is no need to enter a username or password, the redirecting will be immediate (AD/SSO concept).

Traditional usernames and passwords can be used with external Internet users.

Connections to external systems

Thinking Portfolio can be equipped with connections to various external data systems, like PowerBI, Teams, Outlook, ServiceNow, Jira, SalesForce, SAP, M-Files, Slack etc.

The URLs entered in the application text fields and referring to documents are automatically transformed into hyperlinks, including when using Teams workspace to save documents.

The REST API interface is a new solution to create real-time integrations. The connections are described more in detail in the Thinking Portfolio Integration Whitepaper. We will be happy to tell you more about the implementations made and draw an appropriate solution for you.

Our cloud computing model

Thinking Portfolio offers portfolio management under a Private Cloud model. Our cloud data is always stored in Finland. There is no need for the customer to install any application components into their own environment, and the version available will always be the newest one.

We offer the service with a fixed-price monthly fee, with no user limitations.

Use and maintenance are browser-operable with an SSL-encrypted connection. It is possible to limit the use to certain IP addresses only.

Our service model includes support for the customer's Administrator.

Proof of Concept (PoC)

If required, we can carry out together a fast Proof of Concept project (PoC) for our customer. After a few work meetings, we will implement the application with customer-specific adaptations, and it will be usable on our server during the period agreed.

Figure 56. Role-based access control

Our Service Model

Thinking Portfolio hosting solution is provided in co-operation with TeliaCygate Ltd, a leading European data center provider. All Cloud data storages are located in Finland. The user organization does not need any local installations or applications and the latest updated version of our Thinking Portfolio platform is continuously at all customers' use.

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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