High performance. Delivered.

Project Monitoring & Project Controlling

Andreas Range

Dresden, July 7th 2016

accenture digital

Strategy | Digital | Technology | Operations

Andreas Range

Introduction

Office
Berlin

Job Tenure
11,5 years @ Accenture

Level
Senior Manager

Role
Head of SAP Enterprise Performance Management in DE/AT/CH

Professional Background
Dipl. Wirtschaftsinformatik

Percentage of people who joined after me
90%

Organization
Accenture Digital

Clients

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Agenda

- **Accenture Profile**
- General Overview Project Management @ Accenture
- Project Calculation & Project Planning
- Project Monitoring & Controlling

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7,500 employees at Accenture in DE/AT/CH serve

About Accenture

390,000+

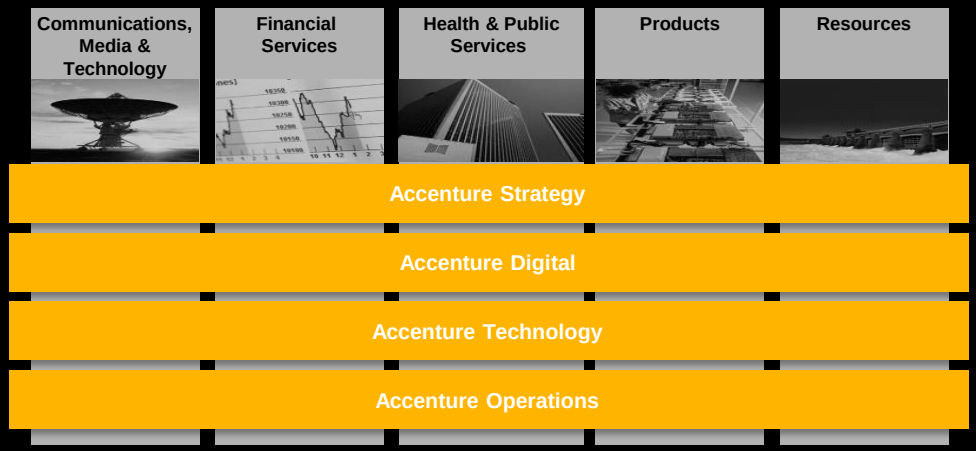
More than 390,000 people serving clients in more than 120 countries[1]

200+

Offices and operations in more than 200 cities in 54 countries

$33.0B

Net revenues for fiscal year 2015



[1] As of Nov 30, 2016

Facts[1]

- Leadership: ~6.200 Managing Directors
- 33.0 billion USD revenues in FY16
- Geographic Regions:
  - Americas
  - Asia Pacific
  - Europe / Middle East / Africa

Clients

- 4,000 clients in more than 120 countries
- 89 of the Fortune Global 100
- 3/4 of the Fortune Global 500
- 28 of the DAX-30 companies
- 99 of our top 100 clients have been clients for at least 5 years, 92 have been clients for at least 10 years

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Did you know?

About Accenture

https://www.youtube.com/watch?v=R27E2DR8uOY

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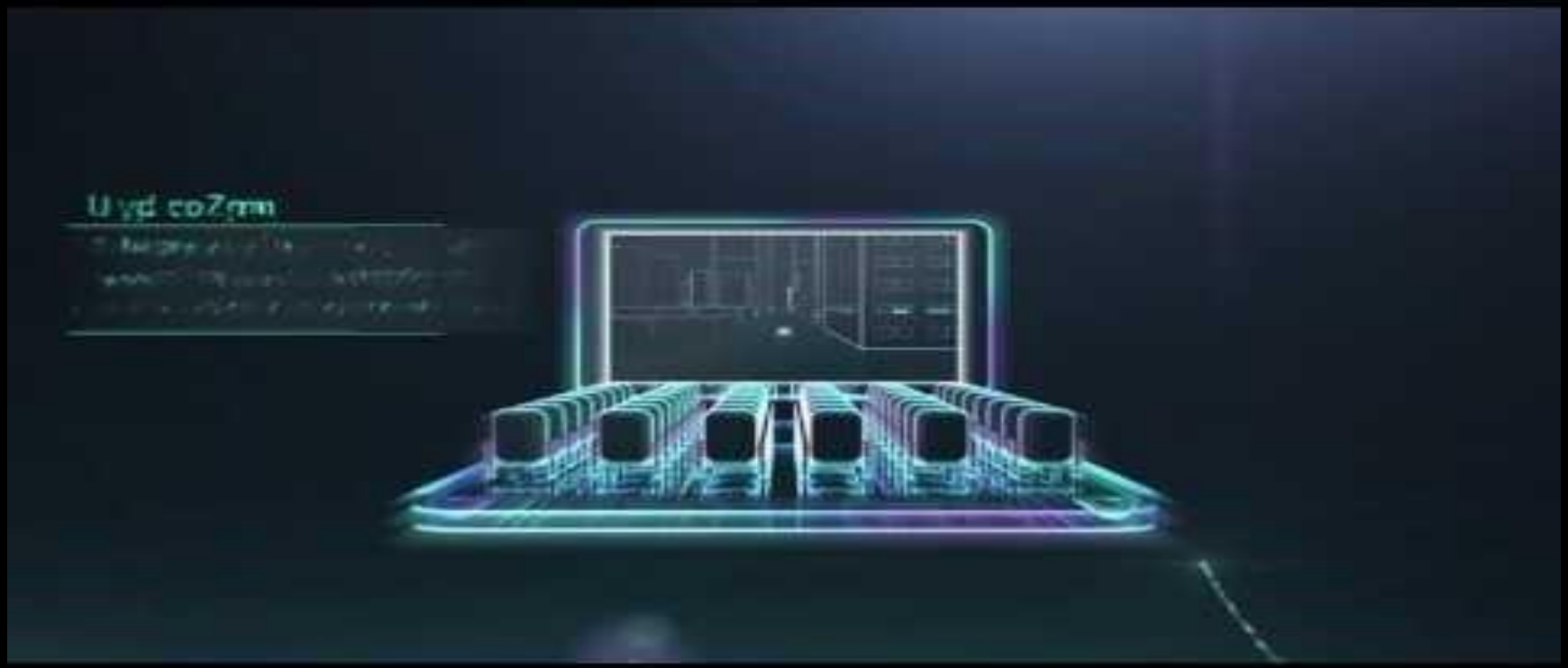
Accenture Digital



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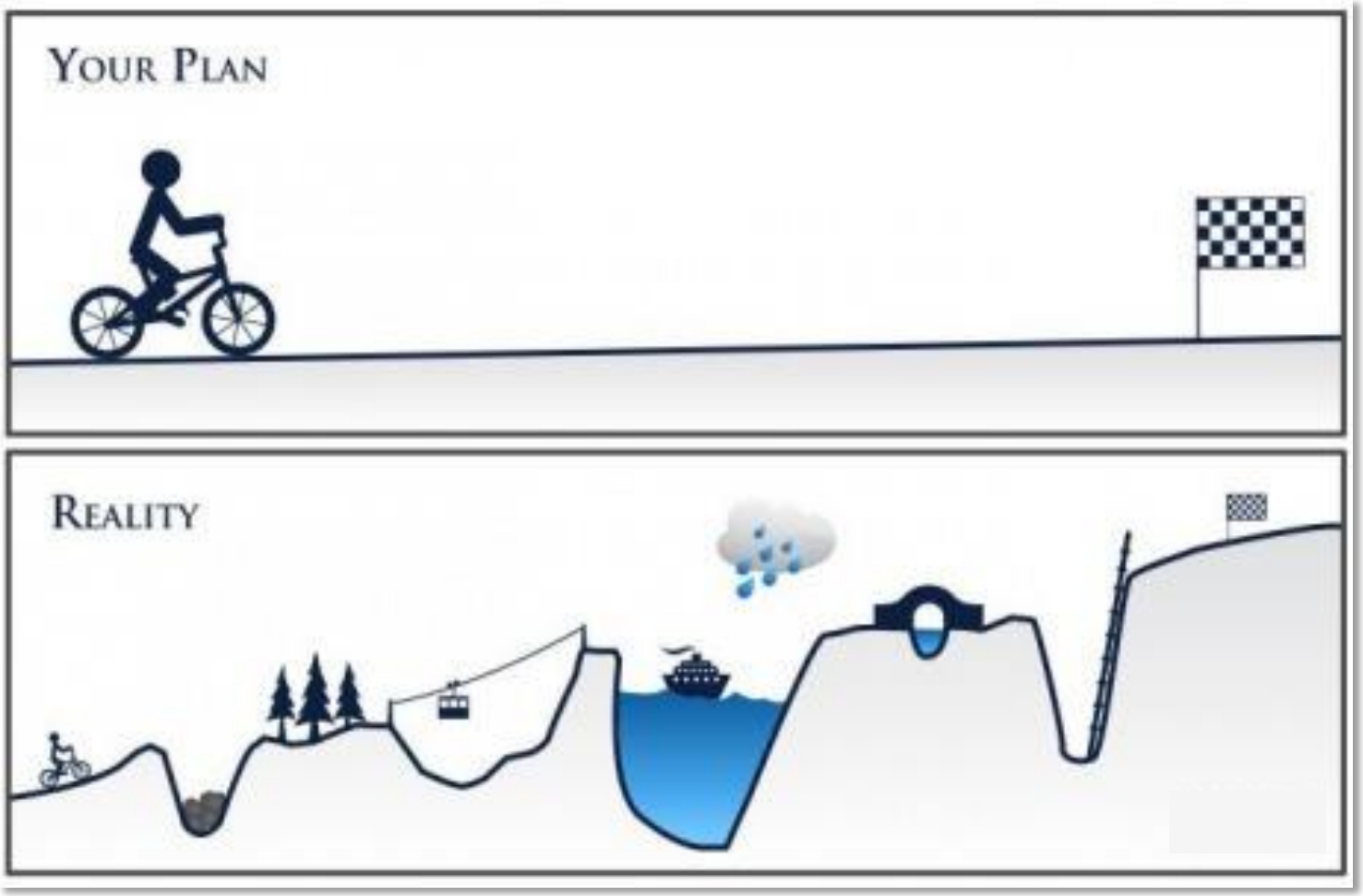

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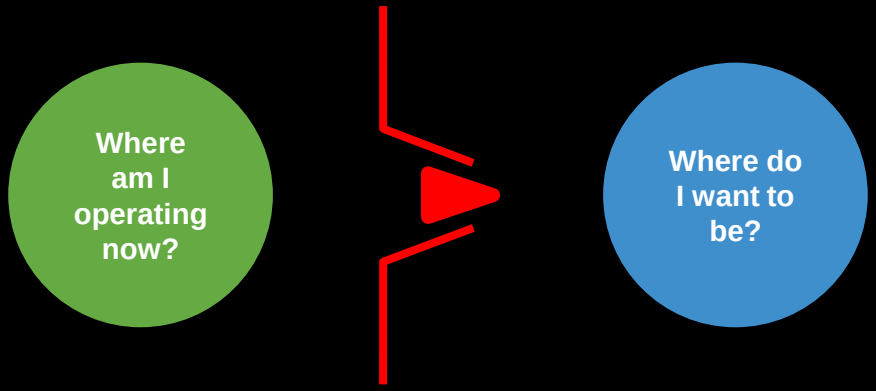
Project Management focuses on measurement-driven results, repeatable processes and clear communication.

Project Management – Introduction

- "A **project** is a temporary endeavor undertaken to create and deliver a unique product, service or result."
- "**Project Management** is the application of knowledge, skills, tools, techniques and processes to help clients make better decisions and to complete deliverables that meet a project's requirements."



Principles:

1. Be clear on where you're going
2. Plan carefully on how you will get there
3. Deliver on promises made in your project plan

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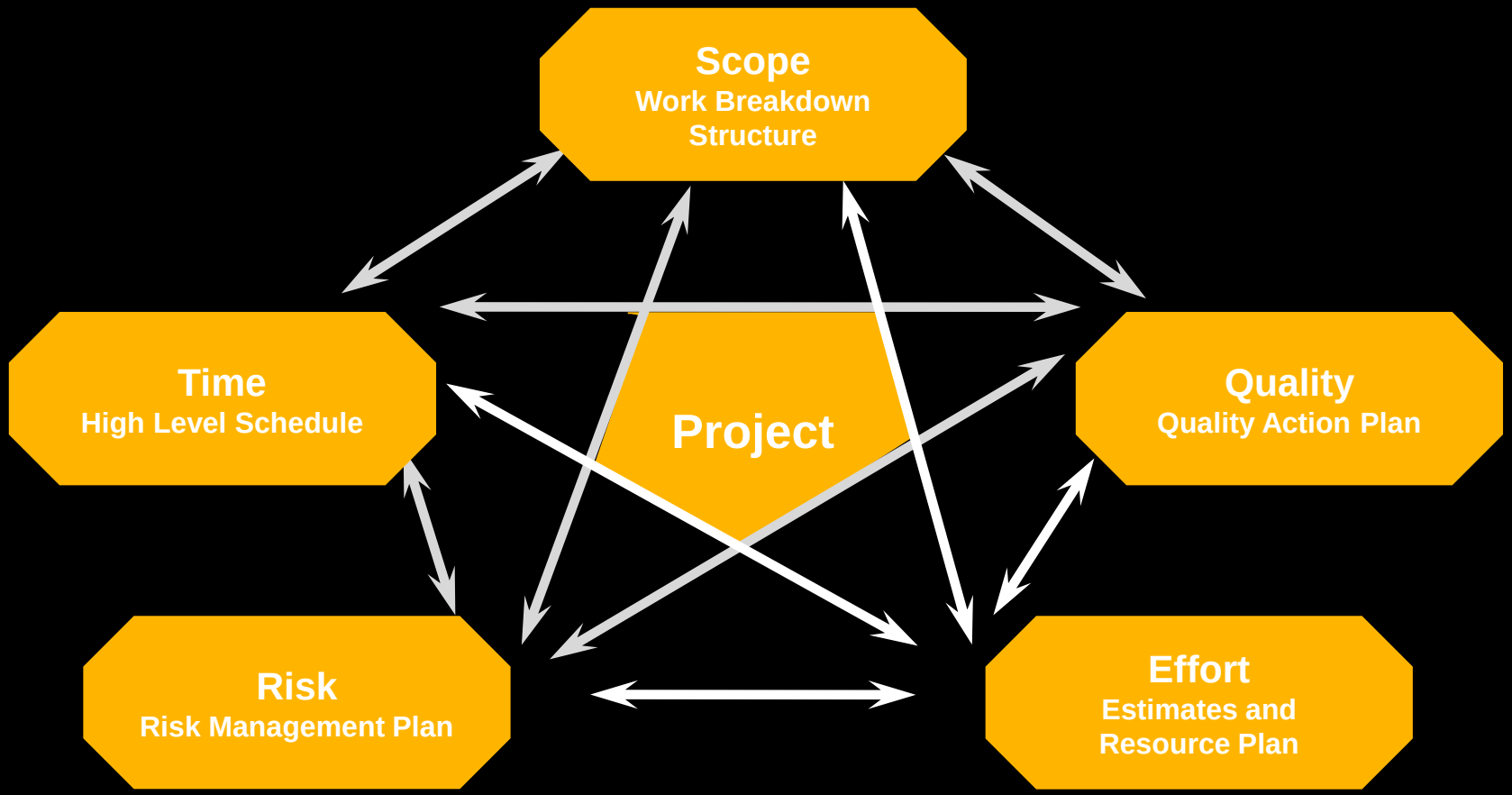
It is helpful to use the SQERT model when thinking about Project dimensions

SQERT Model



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Our comprehensive methodology provides tools to help manage projects effectively on schedule and on budget

Accenture Project Management Approach

Real Life

Scope Management

- Project Management Plan
- Change control process
- Scope Management Plan

Subcontractor Management

- Seamless integration
- Performance tracking and assessment
- Subcontractor Management Plan

Data Management

- Secure management of documentation
- Configuration management

Contract Management

- Contract Modification Process
- Contract Management Plan

Oversight and Monitoring

- Management Dashboard
- Common processes / tools

Schedule Management

- Project Schedule
- Schedule Monitoring

Quality Management

- Quality assurance planning and review
- Deliverable Management
- Quality Management Plan

Cost Management

- Budget management process
- Metrics tracking
- Cost Management Plan

Issue Management

- Issue identification
- Issue Management Plan

Risk Management

- Risk radar and assessment
- Risk Management Plan

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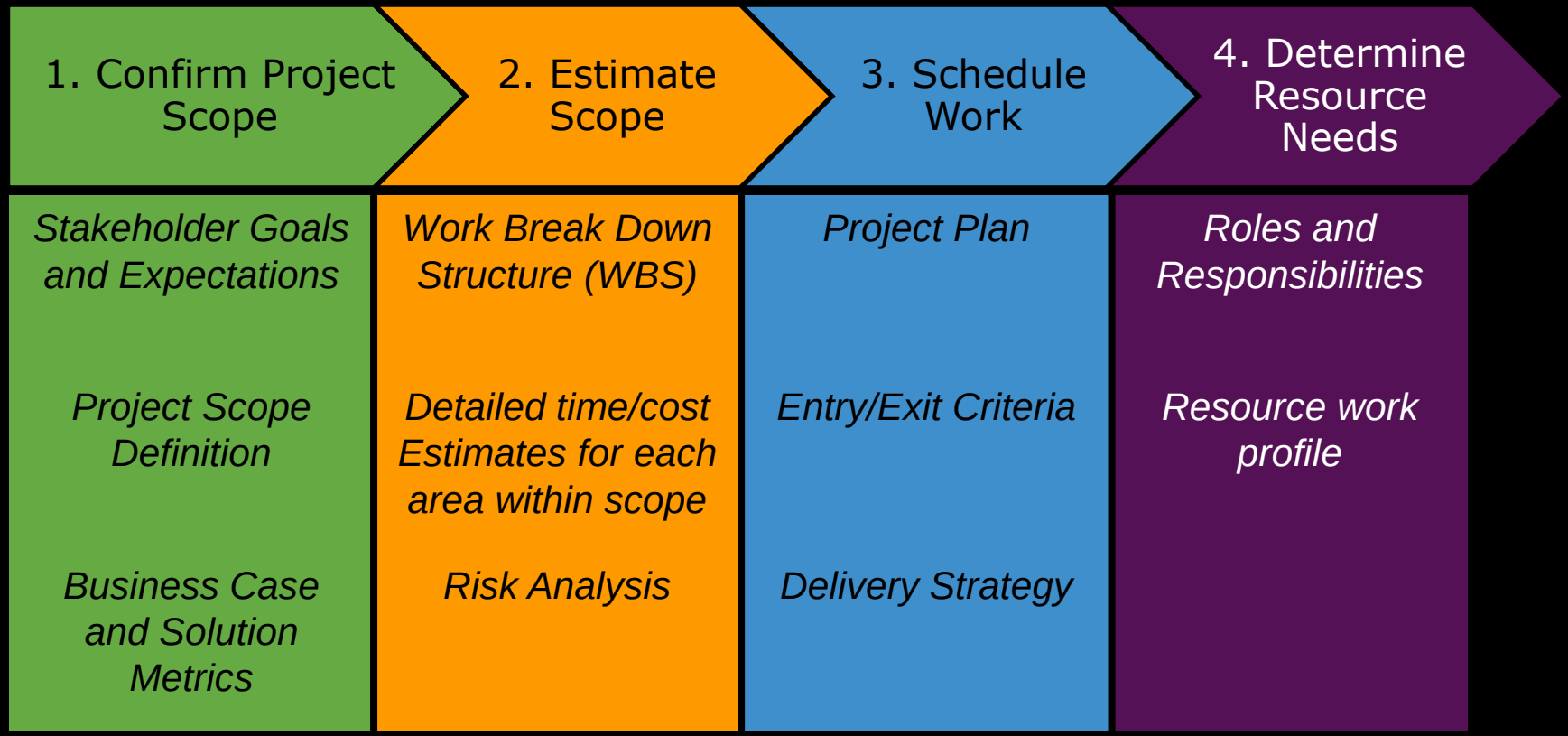
The general planning process includes four process steps – we focus on the estimation of a project's scope

Project Planning– Scope Management



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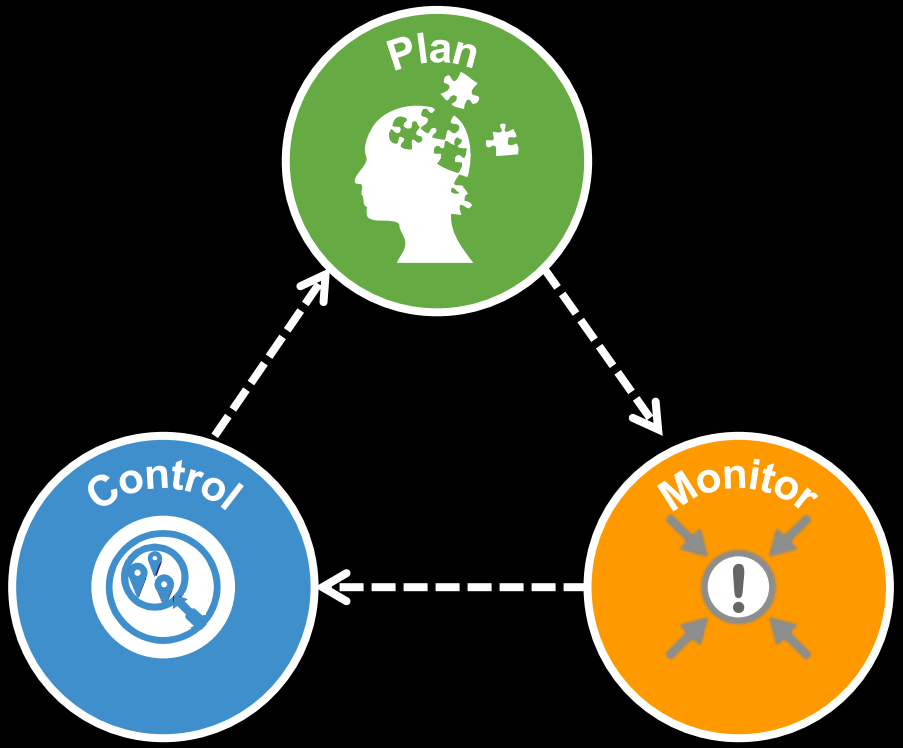
There are three key project management processes supporting a project's life cycle.

Project Management Process

The three key processes **Plan, Monitor and Control** are **co-dependent** and **continuously cycle** throughout **all of the stages** of the project.



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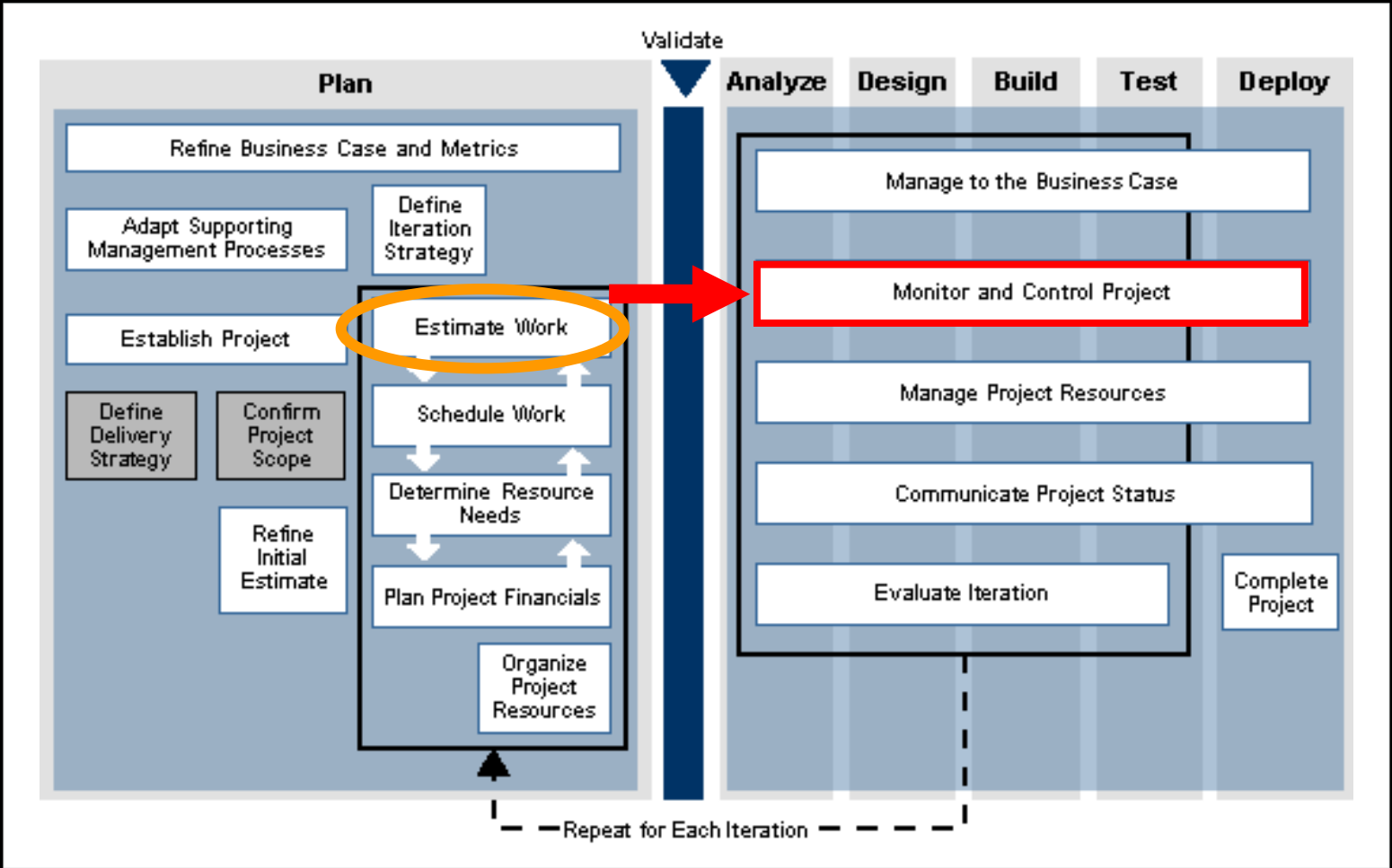
The project management method is part of Accenture Delivery Methods (ADM), our master project approach

Accenture Delivery Methods (ADM)

Real Life



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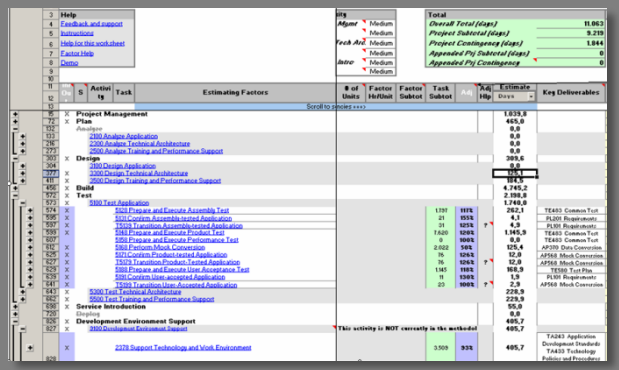
Planning and calculation are the initial steps in setting up a project – adaptions are possible within the lifecycle

Project Calculation & Project Planning

Real Life

Project Calculation

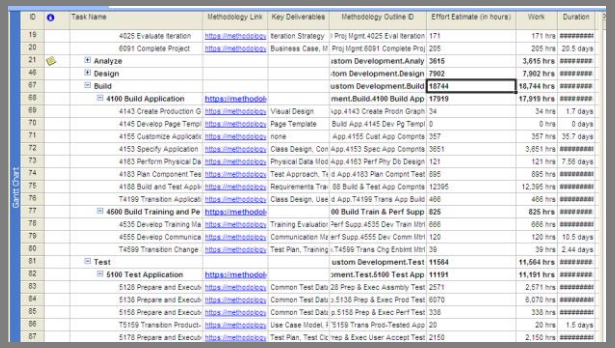
- **Project calculation** is used for the estimation of efforts for the completion of tasks which builds the baseline for solid project controlling.
- Without a precise estimation of efforts a project can...
  - ...exceed the time and budget planning
  - ...radically reduce the profit margin
  - ...decrease the team morale



Example ADM Estimator

Project Planning

- **Project planning** is an essential part to ensure that the adequate team members execute the right tasks at the right time.
- Project planning includes:
  - Project Plan
  - Milestones
  - Planning of resources



MS Project task structure

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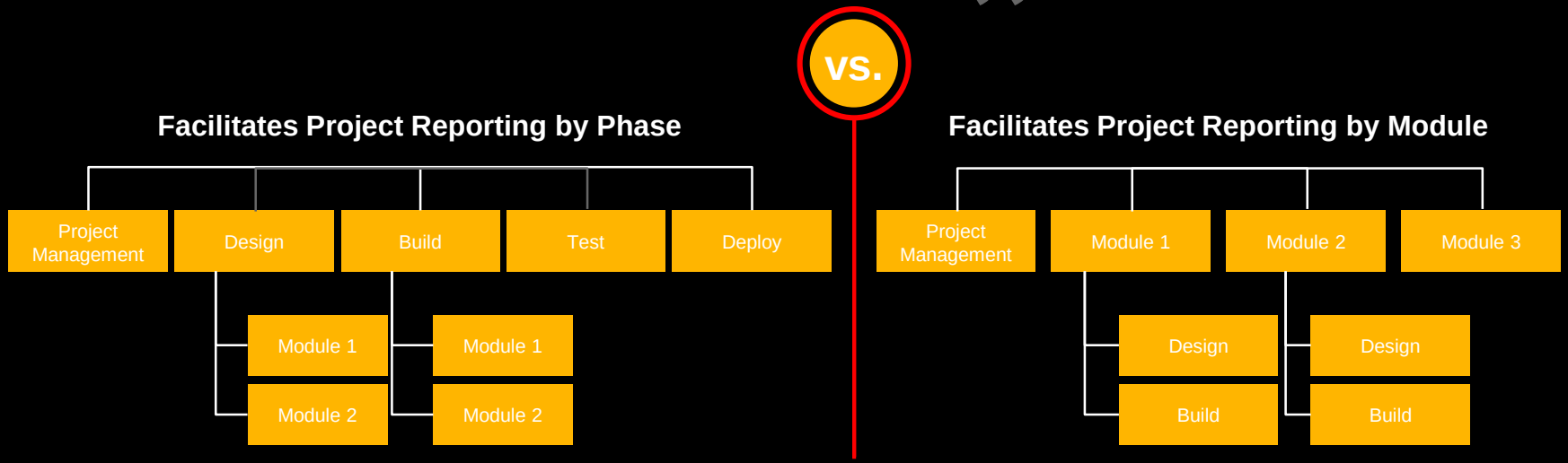
There are two different examples of how a WBS could be structured for a project

Project Planning – Define WBS

WBS (Work Breakdown Structure) …

- is a **description** of the **project's scope** as defined by the program management.
- is used for **defining the scope of a project** in terms of its outcomes and deliverables.
- becomes the **structure of your work plan** within **MS Project**.



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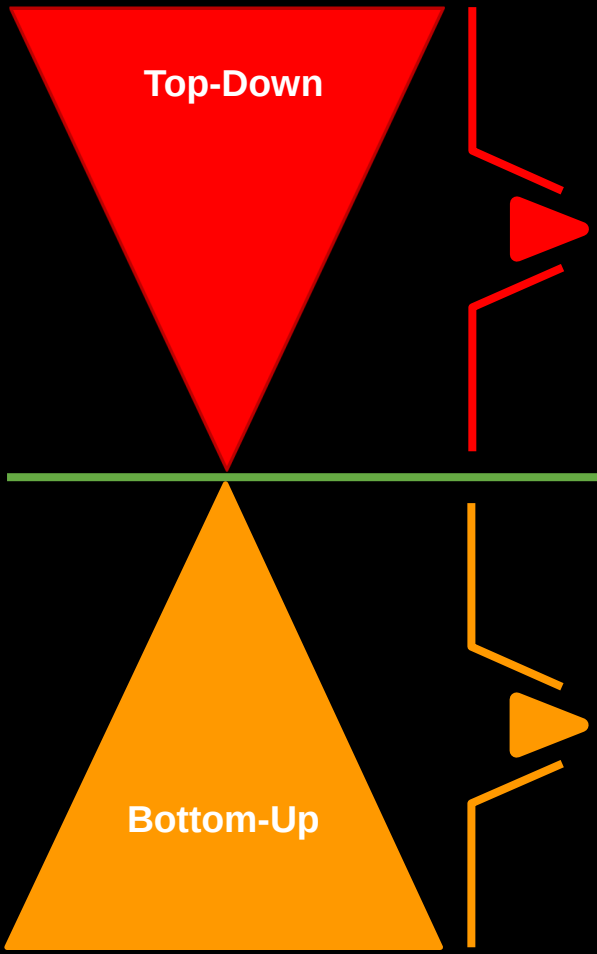
A combination of top-down and bottom-up estimating models are used to approximate the amount of work

Top-Down and Bottom-Up Estimating



- +/- 25% accuracy, depending on project lifecycle status.
- In early lifecycle stages, you may want to consider increasing the contingency percentage beyond 20%.
- 8-12 factors.
- Extensive use of approximations and “rule-of-thumb” assumptions.
- Typically used during initial selling stage activities.

- +/- 10% accuracy.
- 60-100 factors.
- Less use of approximations and assumptions. Use iteratively throughout a project’s lifecycle to constantly refine and fine-tune an estimate, as more detailed requirements are identified.
- Used primarily after the initial selling stage activities.

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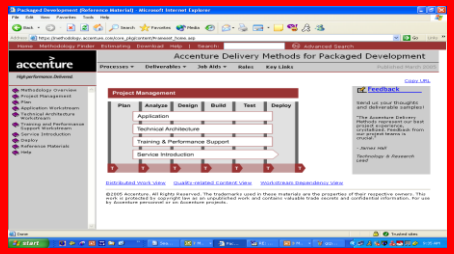
ADM Estimators provide Input for Workplan and Cost / Pricing Models

ADM Estimators – Benefits

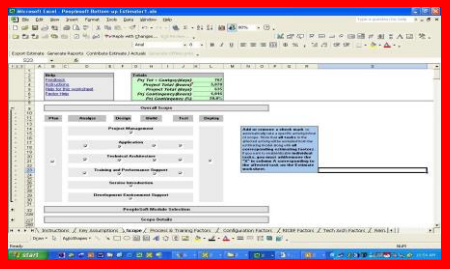
Real Life

ADM



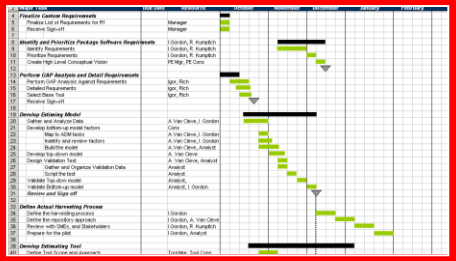
Tasks, Activity & Role Navigation

ADM Estimator Top Down / Bottom Up



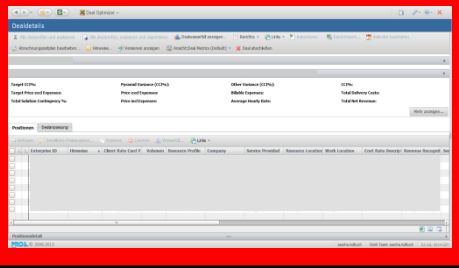
Tasks & Hours

Microsoft Project



Levels, Bill Codes, Duration

GPS



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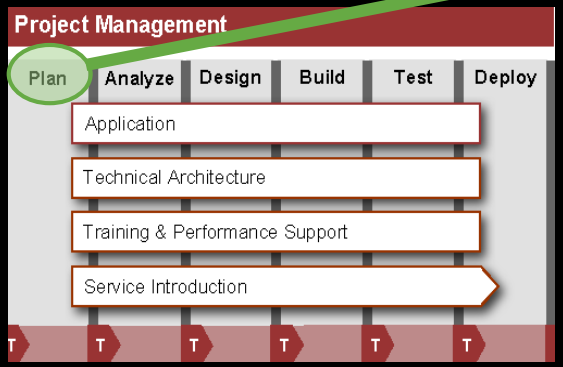
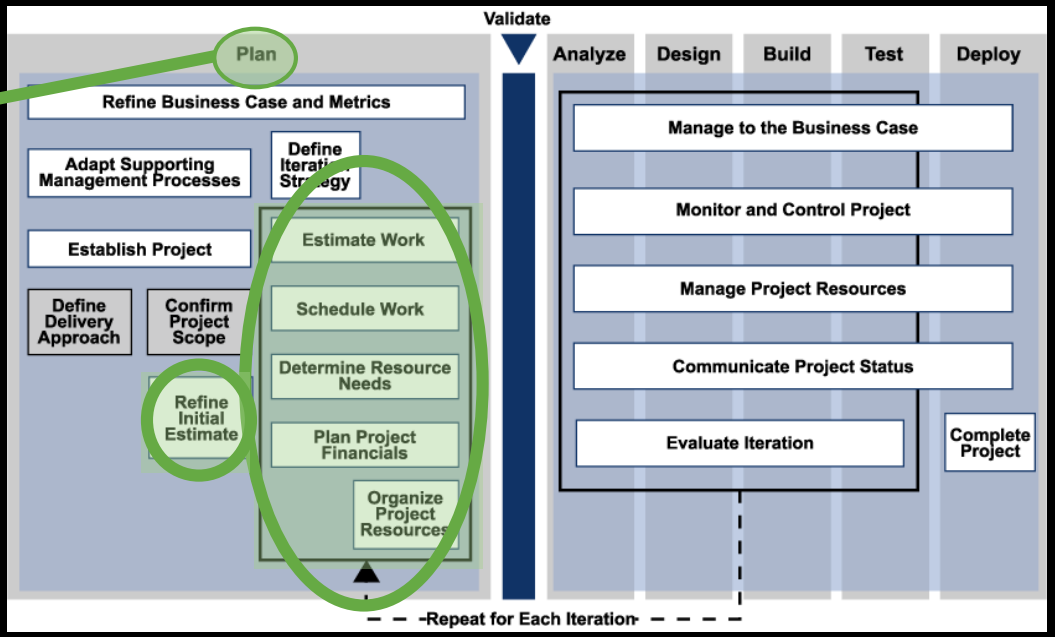
ADM Estimators are tightly Integrated with Accenture Delivery Methods

ADM Project Management – Plan Example

Real Life





ADM Estimators support project managers at different stages of a project by helping:

- Define scope of work and factors
- Document detailed assumptions
- Generate task-level estimates
- Complete budget, schedule and resource estimates

Inputs

- Project Scope Definition
- Iteration Strategy
- Strawman Estimate / Assumptions
- Project Road Map
- Sponsor Goals & Expectations

Outputs

- Detailed Project Assumptions
- Bottom-up Estimate
- Work Plan (via export to MS Project)

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- **Project Monitoring & Controlling**

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Monitoring and controlling are necessary to initiate measures at the right time of the project lifecycle

Project Monitoring & Controlling

Definition: „...the monitoring a project‘s proceedings along an as-is vs. to-be comparison. In case of any occurring problems adequate corrective measures have to be initiated.“

Project Monitoring

- The **Monitor process** involves the following activities and deliverables:

ACTVITIES	DELIVERABLES
Daily ‘Touch-Points’ with Team	N/A
Weekly Status Meetings	• Meeting Minutes • Status Report • Issue Log • Risk Register
Reviews and QA of deliverables	• Quality Assurance Report
Tracking against Project Work Schedule	• Milestone Report • Risk Register
Identifying Risks and Issues	• Risk Register • Issue Log

Project Controlling

- The **Control process** involves the following activities and deliverables:

ACTVITIES	DELIVERABLES
Management of changes to project scope	• Change Request Form
Escalation of issues and risks that require intervention from roles higher in the project structure	The following is in **dashboard format**: • Status Report • Issue Log • Risk Register • Minutes from ad hoc Meetings

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During the project lifecycle adaptions in the project triangle (SQERT) can be necessary

Three Dimensions of Project Controlling

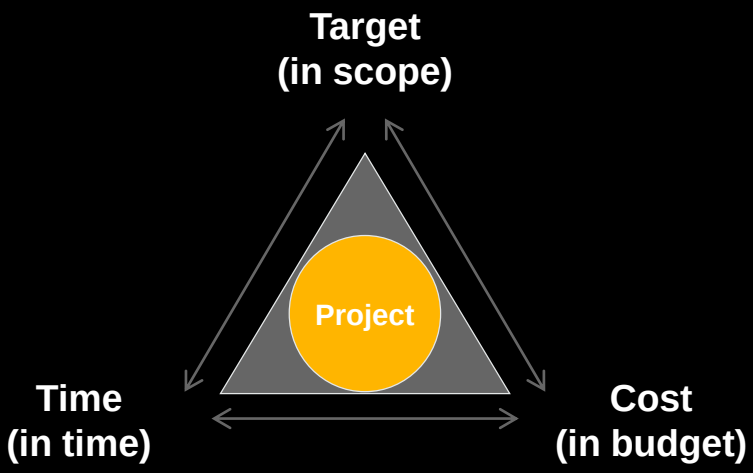
3 Dimensions

1 **Target Control**
Management of Scope, e.g. definition of results per each project phase / approval

2 **Time Control**
Time Schedule, e.g. milestone trend analysis

3 **Cost Control**
Cash Outflow/ Inflow, e.g. Earned Value Analysis

“ **PLANNING** and **MONITORING** are **iterative activities** ”



“ **PLANNING** has to be **adapted as precisely as** it was **created** ”

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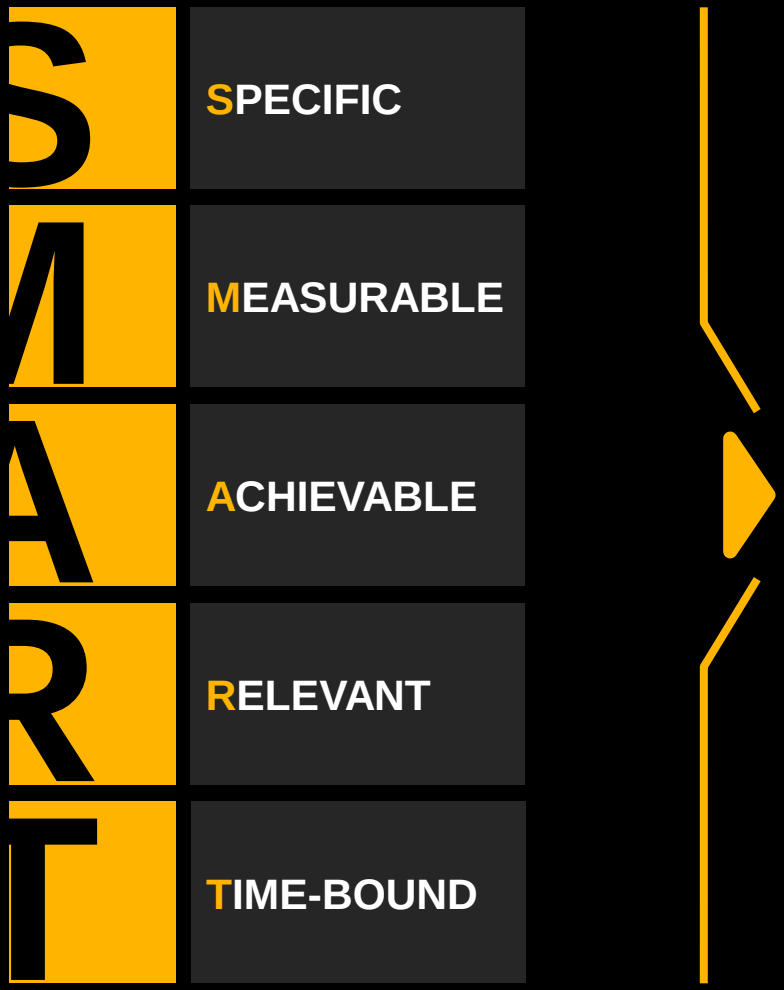
In order to monitor a project's progress it is recommended to define and evaluate SMART goals

Target Control – SMART Goals



Accenture Additions:

Quality
What is the required quality?

Unambiguous
Are all addressees on the same page?

Prioritized
Prioritization possible for planning / releases?

Traceable
Where does the objective/ request come from?

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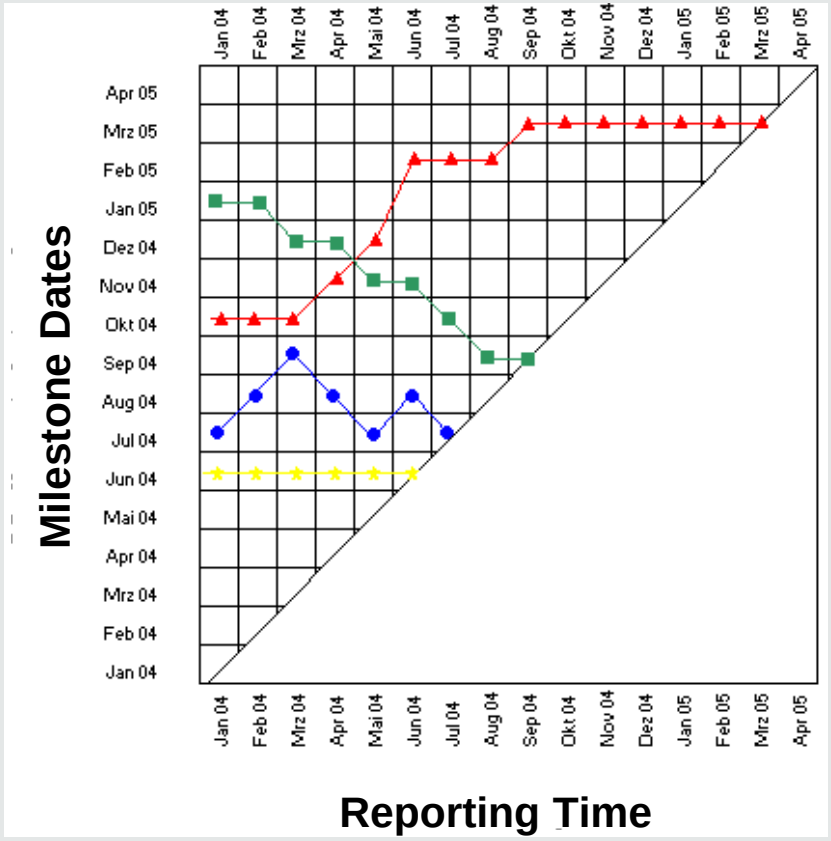
Examples: Milestone Trend Analysis / Gantt-Chart

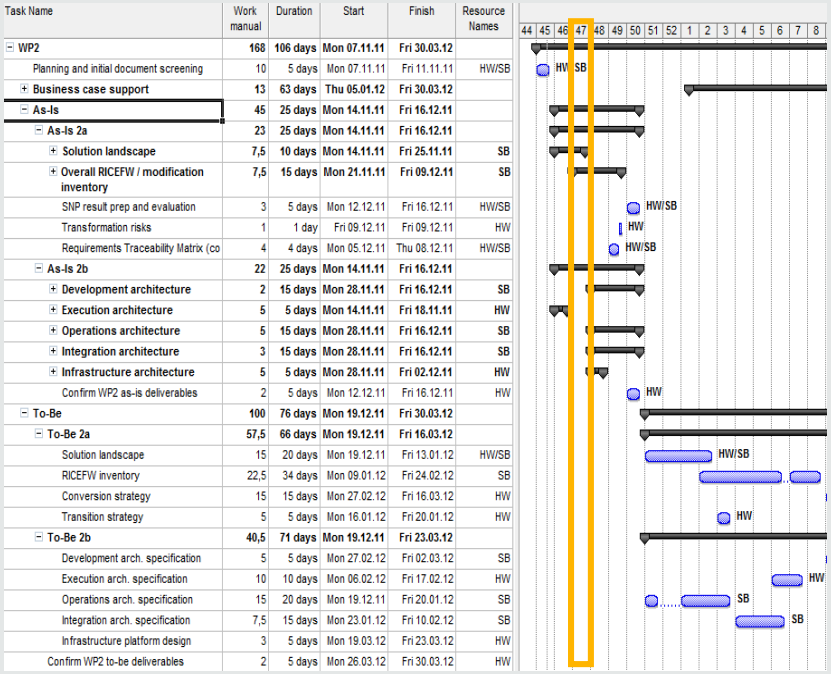
Time Control

Real Life

Example 1: Milestone Trend Analysis



Example 2: Progress Control via Gantt-Chart



Task Name	Work manual	Duration	Start	Finish	Resource Names
WP2	168	106 days	Mon 07.11.11	Fri 30.03.12	
Planning and initial document screening	10	5 days	Mon 07.11.11	Fri 11.11.11	HW/SB
Business case support	13	63 days	Thu 05.01.12	Fri 30.03.12	
As-Is	45	25 days	Mon 14.11.11	Fri 16.12.11	
As-Is 2a	23	25 days	Mon 14.11.11	Fri 16.12.11	
Solution landscape	7,5	10 days	Mon 14.11.11	Fri 25.11.11	SB
Overall RICEFW / modification inventory	7,5	15 days	Mon 21.11.11	Fri 09.12.11	SB
SNP result prep and evaluation	3	5 days	Mon 12.12.11	Fri 16.12.11	HW/SB
Transformation risks	1	1 day	Fri 09.12.11	Fri 09.12.11	HW
Requirements Traceability Matrix (co	4	4 days	Mon 05.12.11	Thu 08.12.11	HW/SB
As-Is 2b	22	25 days	Mon 14.11.11	Fri 16.12.11	
Development architecture	2	15 days	Mon 28.11.11	Fri 16.12.11	SB
Execution architecture	5	5 days	Mon 14.11.11	Fri 18.11.11	HW
Operations architecture	5	15 days	Mon 28.11.11	Fri 16.12.11	SB
Integration architecture	3	15 days	Mon 28.11.11	Fri 16.12.11	SB
Infrastructure architecture	5	5 days	Mon 28.11.11	Fri 02.12.11	HW
Confirm WP2 as-is deliverables	2	5 days	Mon 12.12.11	Fri 16.12.11	HW
To-Be	100	76 days	Mon 19.12.11	Fri 30.03.12	
To-Be 2a	57,5	66 days	Mon 19.12.11	Fri 16.03.12	
Solution landscape	15	20 days	Mon 19.12.11	Fri 13.01.12	HW/SB
RICEFW inventory	22,5	34 days	Mon 09.01.12	Fri 24.02.12	SB
Conversion strategy	15	15 days	Mon 27.02.12	Fri 16.03.12	HW
Transition strategy	5	5 days	Mon 16.01.12	Fri 20.01.12	HW
To-Be 2b	40,5	71 days	Mon 19.12.11	Fri 23.03.12	
Development arch. specification	5	5 days	Mon 27.02.12	Fri 02.03.12	SB
Execution arch. specification	10	10 days	Mon 06.02.12	Fri 17.02.12	HW
Operations arch. specification	15	20 days	Mon 19.12.11	Fri 20.01.12	SB
Integration arch. specification	7,5	15 days	Mon 23.01.12	Fri 10.02.12	SB
Infrastructure platform design	3	5 days	Mon 19.03.12	Fri 23.03.12	HW
Confirm WP2 to-be deliverables	2	5 days	Mon 26.03.12	Fri 30.03.12	HW

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There are three types of earned value metrics: base, summary, and forecast metrics

Cost Control

Basics

- Industry standard to measure the project progress:
  - Forecasting of the date of completion and final costs.
  - Shows time and budget deviations.
- Three different types of earned value metrics exist:

Base

- Provides the basis to calculate all other metrics.
- Used in conjunction with summary and forecast metrics.

Summary

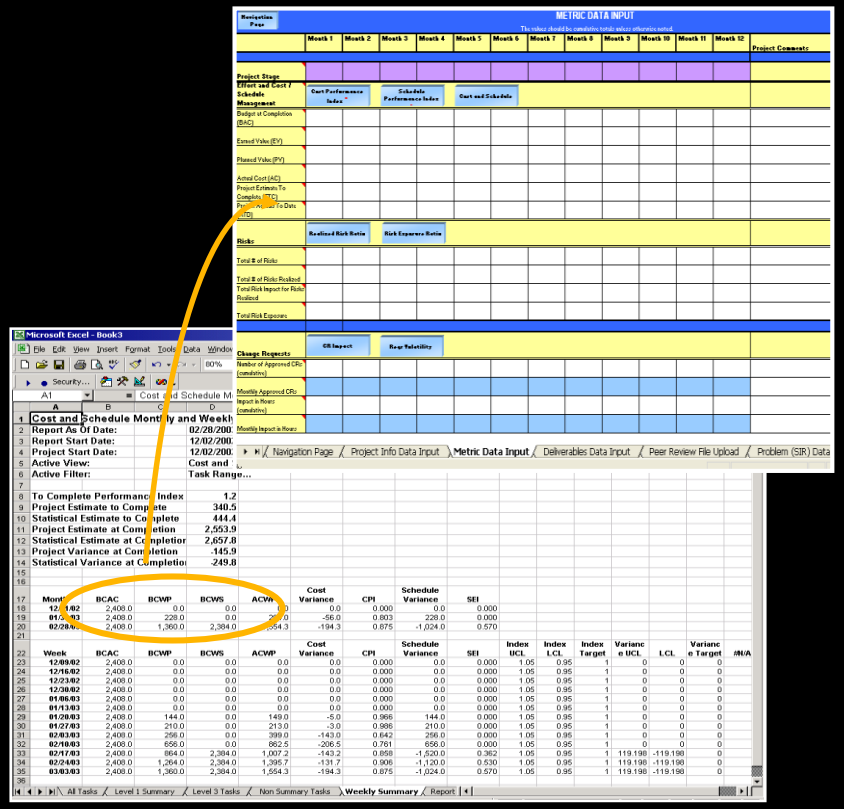
- Provide information to assess the current state of the project
- Based on the Earned Value (EV) base metric.

Forecast

- Forecasts project status at completion.
- Derived from a combination of base and summary metrics.

Example

Measurement Workbook



Cost & Schedule Macro Results

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There are different types of base metrics in place – the 0/100 formula is recommended for EV calculation

Base Metrics

Metric	Definition and Formula
Budget at Completion (BAC)	▪ Budget for the task, summary task, phase or other WBS component ▪ **BAC = Baseline budget expressed in days or hours, not dollars**
Actual Cost (AC)	▪ Actual cost of any work that has been performed ▪ **AC = Amount of effort already spent or "burned" expressed in terms of days or hours not dollars**
Earned Value (EV)	▪ Total amount of effort, in hours or days, for tasks that are 100% complete ▪ **EV = 0 if task is NOT complete, EV = BAC, if task is complete**
Planned Value (PV)	▪ Budgeted amount of effort, measured in hours for tasks scheduled to be 100% complete ▪ **PV = BAC if task is due prior to status date** **PV = 0 if task is due after status date**

Earned Value Calculation Methods:

Accenture Recommendation

- **0/100 formula**
  - Tasks must be 100% complete, then earned value equals Budget at Completion (BAC)
- Other methods for calculating Earned Value include:
  - 50/50 formula
  - Ratio to earned standards
  - Milestones
  - Percent complete
  - Milestones / Percent complete

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There are different types of summary metrics – therefore variances and indices are calculated

Summary Metrics

Metric	Definition and Formula
Cost Variance (CV)	▪ The difference between the actual costs and the budgeted (baseline) costs ▪ **CV = Earned Value – Actual Cost (EV-AC)**
Schedule Variance (SV)	▪ Determines whether the project is on, ahead, or behind schedule ▪ **SV = Earned Value – Planned Value (EV-PV)**
Cost Performance Index (CPI)	▪ The ratio of budgeted cost to actual cost used to predict the magnitude of a possible cost overrun or under-run at a given point in time ▪ **CPI = Earned Value/Actual Cost (EV/AC)**
Schedule Performance Index (SPI)	▪ The ratio of budgeted cost to planned cost used to predict the magnitude of a possible cost overrun or under-run at a given point in time ▪ **SPI = Earned Value/Planned Value (EV/PV)**

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Different types of forecasting metrics can be used for project performance and completion estimations

Forecast Metrics

Metric	Definition and Formula
To-Complete Performance Index (TCPI)	(BAC-EV)/(BAC-AC) **(Budget at Complete – Total Earned Value)/(Total Budget at Complete – Actual Cost)**
Statistical Estimate to Complete (STAT ETC)	(BAC – EV)/CPI **(Budget at Complete – Earned Value)/Cost Performance Index**
Statistical Estimate at Completion (STAT EAC)	AC + STAT ETC **Actual Cost + Statistical Estimate to Complete**
Statistical Variance at Completion (STAT VAC)	BAC – STAT EAC **Budget at Complete – Statistical Estimate at Completion**

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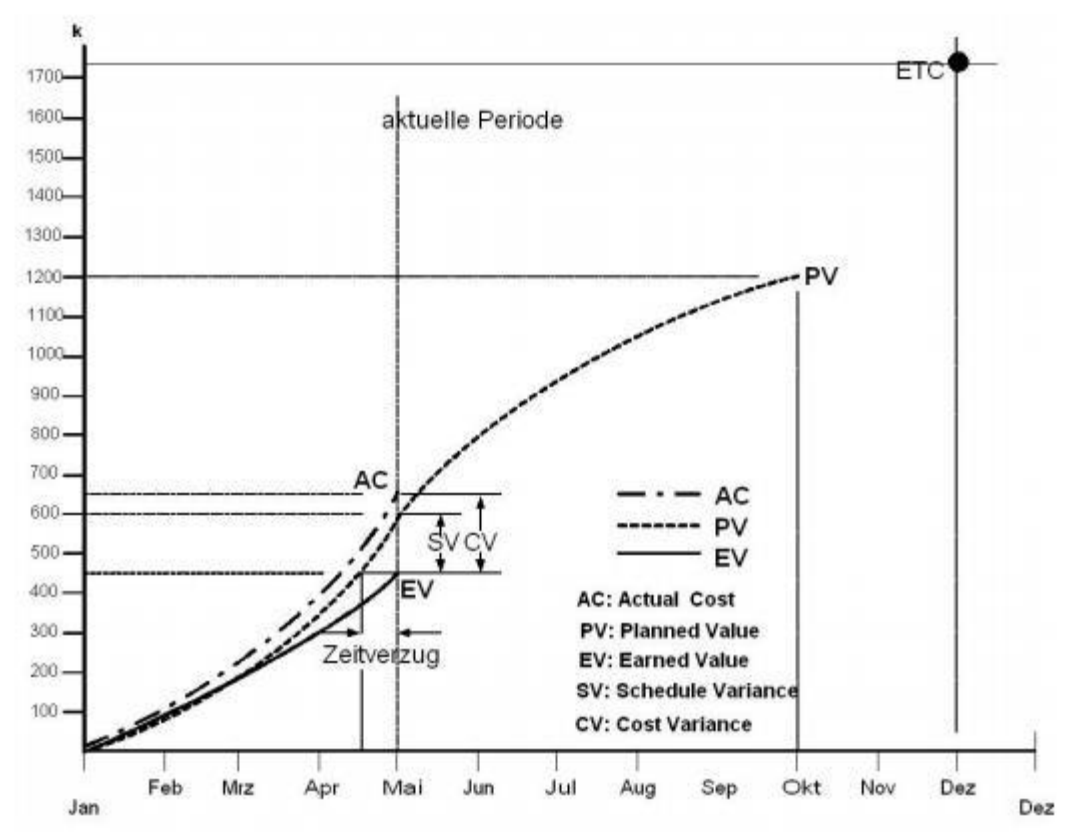
EVA Summary

Example



AC	650.000 €
EV	450.000 €
PV	600.000 €
CV= EV-AC	-200.000 €
SV= EV-PV	-150.000 €
CPI = EV/AC	0,69
SPI = EV/PV	0,75

➔Project is over budget
➔Project is behind schedule

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There are various further tools and methods that can be used for the monitoring and controlling of a project

Further Project Monitoring & Controlling Dimensions

Extract

FINANCIALS	▪ Supplier / Consultantancy Margin Targets ▪ Control of Contingency ▪ Control of Travel Expenses ▪ Business Case Monitoring
RISKS	▪ Qualitative Risk Assessment ▪ Quantitative Risk Assessment ▪ Includes Opportunities and Threats
COMMUNICATION	▪ Communication Plan ▪ Stakeholder Management (Key Stakeholder Matrix) ▪ Change Management Instruments (Workshop) ▪ Target Group Refinement
QUALITY	▪ Quality Assurance (Interviews, Surveys,…) ▪ Quality Management and Configuration ▪ Management as a Planning Function ▪ Test Statistics
HR	▪ Employee / Project Survey ▪ Control of Overtime ▪ Individual Development / Motivation and Performance Evaluation
SOURCING	▪ Monitoring of Supplier Contracts ▪ Cost Control ▪ Regular Check of Conditions ▪ Spend Management

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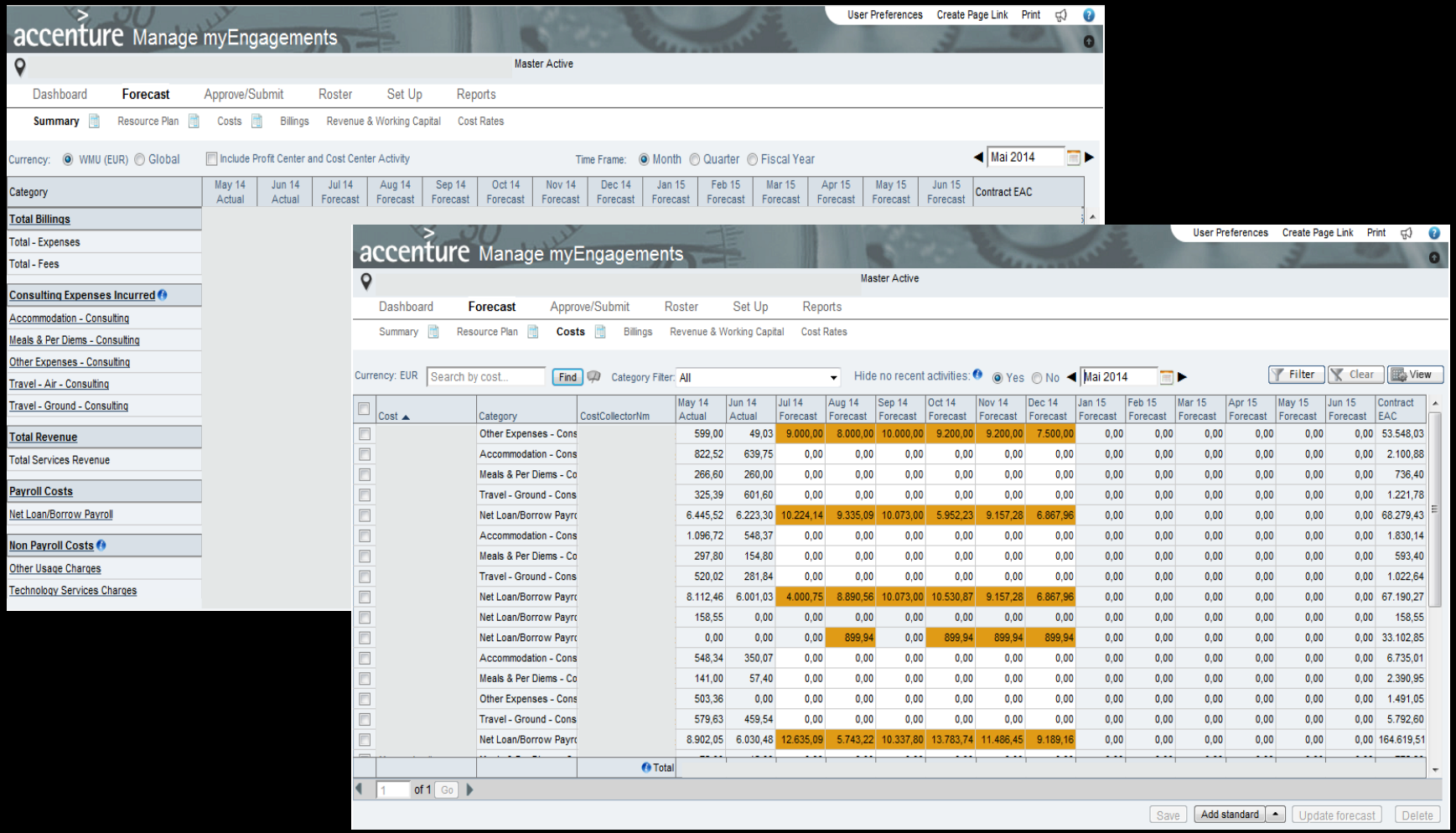
Special tools are used for the calculation of cost and revenues

Financials Monitoring & Controlling – Examples

Real Life



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Additional examples exist for the monitoring and controlling of risks

Risk Monitoring & Controlling – Example

Real Life

Risk Register

= High Risk after Mitigation
= Medium Risk after Mitigation
= Low Risk after Mitigation

Nr.	Risk	Risk name	Project	Date	Source	Damage entry	before				Mitigation strategy, Remarks
	Risk Description	Short name of risk	Project name	Evaluation Date		Damage will occur approximately on date (mmm. yy)	Probability 1: 25% 2:50% 3:75% 4:100%	Consequence 1: < 10 T€ 2: 10 - 50 T€ 3: 50 - 100 T€ 4: 100 - 300 T€ 5: > 300 T€	Risk Classification value RCV1	Dependency to stream	
1	asdf	Parallelise IT concept (R2) and template (R1)	IT	19.11.08	rad	Mrz. 09	3	3	9		Detailed resource planning of both project phases
2	asdf	Less ressources for run SAP in futur	IT	19.11.08	rad	Jun. 10	2	5	10		Wait of detailed IT architecture information
3	asdf	Scope of divisional planning	BM	14.08.08	Unknown business requirements	Sep. 08	2	3	6		Scope has to be roughly defined in early stage of concept phase. Implementation is included in 2009.

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When planning and controlling resources it is important to keep some facts in mind

Resource Monitoring – Recommendations

Loading Resources

- Assign & monitor experienced resources to critical path tasks to mitigate the risk of schedule slippage.
- If resource availability permits, assign the same resource to work on inter-related tasks in the work plan.
- Take advantage of the context the resource has specific to the work and increase efficiency.
- Avoid assigning multiple resources to a task.

Select and monitor the resource with the right experience and skills for the task.

Monitoring Resources

- Examples of over-utilization – during planning:
  - Fulltime assignment on >1 task during the same time.
  - Assignment to a summary task and 1+ of the subtasks.
- Examples of over-utilization – after project start:
  - Increased duration of tasks.
  - Increased assignment units for resources.
  - Decreased unit availability for resources.

A flexible project structure is required as from time to time there are likely to be resources that are over or under-utilized.

Levelling Resources

- Do not plan for an absolute 100% utilization of all resources.
- At Accenture it is important for resources to have time for non-project activities important to our organization and to the morale of the resources (such as PTO, training, community meetings, etc.).
- Consider the morale of individuals.

Maximize resource utilization without exceeding their availability.

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Keeping a few rules in mind can help you to manage your daily project work in a successful manner

11 Golden Rules in Practice

#1 – Only completion is final

#2 – Climb the wall. Problems are your business

#3 – Escalate problems quickly

#4 – Give managers a chance to manage

#5 – Problems need owners

#6 – Ask (the right) questions

#7 – Issues and risks are different

#8 – Always have a work plan

#9 – Know your status – KPIs (CV, SV, CPI, SPI)

#10 – Stay clear on scope

#11 – Write it down

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