



COSMO Project  
based on Microsoft Dynamics 365  
Business Central



Every company and every industry has its own, individual IT solution requirements. This applies in particular to companies for which planning and implementation of projects is part of their core business. With **COSMO Project**, COSMO CONSULT offers these companies a certified industry solution based on Microsoft Dynamics 365 Business Central on-premises.

**COSMO Project** is specifically tailored to the industry-specific challenges of plant construction, special-purpose machine construction, project service providers, engineers and architects as well as the construction-related industry.

**COSMO Project** makes a significant contribution towards secure and fast ERP implementation, efficient project planning and management as well as transparent controlling and continuously up-to-date simultaneous costing and at the same time promotes inter-departmental collaboration with the areas of design and development, purchasing and MRP, production, dispatch and controlling.

The high user acceptance and added value resulting from the optimised processes and functions improves the competitiveness and transparency of the business, leading to customer satisfaction over the long term.

As a result, **COSMO Project** offers you greater reliability, transparency and flexibility in the processing of complex projects.

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## Target Industries

- Plant engineering and construction
- Manufacturing systems engineering
- Engineering and planning offices
  - Architects
- Professional Service Providers
- Project-oriented companies
- Construction work
- Subconstruction work

## Support throughout the Entire Project Lif Cycle

**COSMO Project** supports you throughout the entire life cycle of your projects:

- Planning phase
- Project calculation
- Quotation creation
- Order processing
  - Planning and execution of project-specific procurement processes
    - Purchasing
    - Warehousing
    - Production
- Service provision with time recording
- Dispatch planning and control
- Project invoicing
  - Billing of expense items
  - Payment plans with integrated pre-payment management
  - Milestone accounting
- Project controlling for costs, revenues and work progress
- Project evaluation
- Project completion
- Management of subsequent orders, such as additions, warranty and service

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## Planning of projects

**COSMO Project** provides you with the best possible support from the early planning stages of your projects. You can create project structures quickly and easily using project templates, extensive copying functions and intuitive system operation.

In the hierarchical work breakdown structure, you can plan the services and work packages required for implementation of the project as well as the required material, travel costs and other expenses.

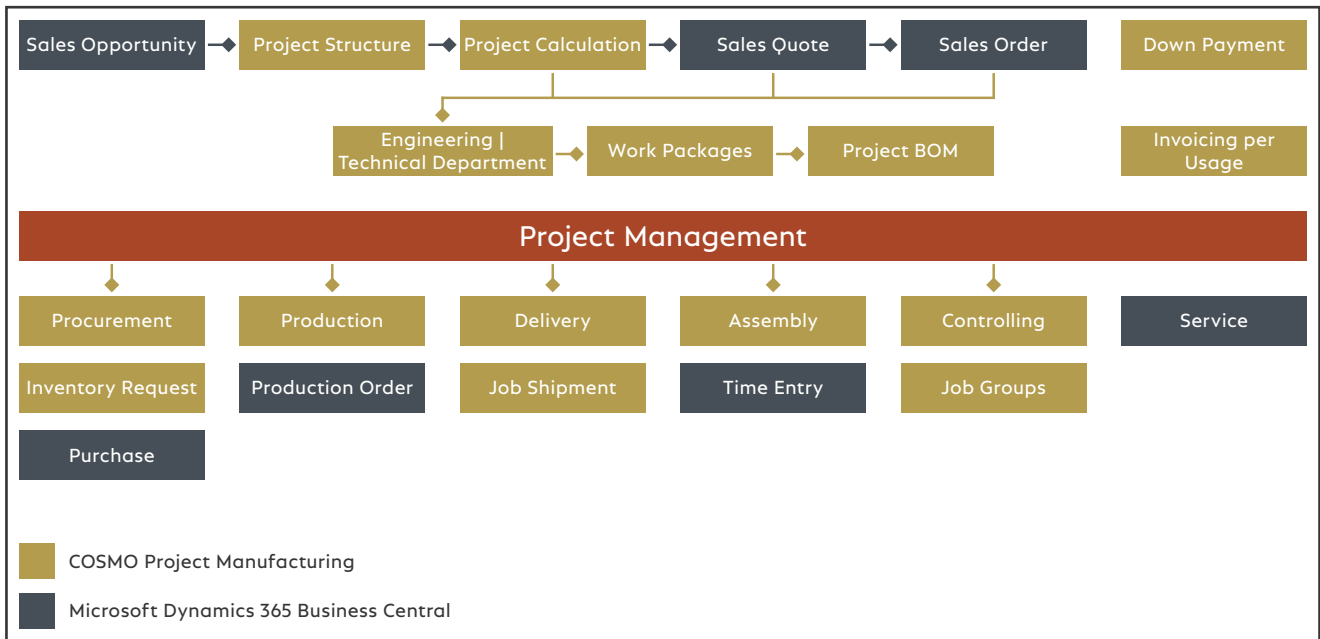


Fig. 1: Overview COSMO Project

## Flexible project costing

By creating the project work breakdown structure, you have already established the basis for project costing. By calculating costs and revenues you always have an overview of the anticipated profit margin. This applies both to pre-costing and to simultaneous costing during processing of the project (see fig. 2). To determine the price of individual project items you can refer not only to the cost prices and sales prices saved in the product

master data for standard components, but also to the hourly rates for services.

For project items which have no standard prices, you can refer to estimated values or quotations from your suppliers. The purchase quote manager helps you to create supplier requests and to select the right supplier with a price comparison.

Dynamics 365 Business Central

ccproject P00020.03 - DYN 365 BC RELEASE | WORK DATE: 06.09.2020

### Job Budget Calculation

Search New Edit List Process Processing Show Attached Open in Excel Actions Navigate Fewer options

Delete Position Copy from... Create Sales Quote Position Card Job Charges

WBS	TYPE	NO.	DESCRIPTION	QUANTITY	UNIT OF MEASURE CODE	DIRECT UNIT COST	TOTAL DIRECT COST BUDGET (LCY)	INDIRECT COST %	EXTRA CHARGE %	UNIT PRICE BASE	UNIT PRICE (LCY)	SAL
1.1.	General	GESAMT	Plant Engineering	1			66.800,00		47,2	Price	98.340,00	
1.1.1.	General	SUMME	Services	1			54.200,00		50,8	Price	81.750,00	
1.1.1.1.	Service	D003	Project Management	400	STUNDE	78,00	31.200,00		50	Cost	117,00	
1.1.1.2.	General	SUMME	Technical Office	1			23.000,00		52	Price	34.950,00	
1.1.1.2.1.	Service	D008	Construction (electric)	200	STUNDE	70,00	14.000,00		50	Cost	105,00	
1.1.1.2.2.	Service	D009	Construction (mechanical)	120	STUNDE	75,00	9.000,00		55	Cost	116,25	
1.1.1.3.	Service	D011	SW Development	500	STUNDE	47,50	23.750,00		163,2	Price	125,00	
1.2.	Item	E-BG-0001	Plant	1	STÜCK		16.000,00		44,4	Price	23.100,00	
1.2.1.	General	SUMME	Long Lead Time Items	1			3.000,00		20	Price	3.600,00	
1.2.1.1.	Item	D-7012-00002	Engine 90 Kw	1	STÜCK	3.000,00	3.000,00		20	Cost	3.600,00	
1.2.1.2.			Select Item									
1.2.1.3.			Select Item									
1.2.2.	Item	E-BG-0001	Mechanic	1	STÜCK		13.000,00		50	Price	19.500,00	
1.2.2.1.	Item	D-7013	Axle	2	STÜCK	1.500,00	3.000,00		50	Cost	2.250,00	
1.2.2.2.	Item	D-7015	Hydraulic Power Unit 10...	4	STÜCK	2.500,00	10.000,00		50	Cost	3.750,00	

Path: 1.1.2. Plant Engineering \ Services \ Technical Office

Fig. 2: Project Budget Calculation

Through unit price determination at item level you can use special project prices or project charges. In addition, you can also set up a special overhead costing based on your own templates of calculation schedules.

A rollup function enables you to group items at a higher level in the form of „bottom-up costing“.

With the budget planning function, you can fix estimated item totals and then monitor compliance with the budget („top-down costing“). This means you have the best possible basis for reliable costing at your disposal.

## Quotation creation and order release

Quotations can be created directly based on the costings. You can decide which costing items should appear in the actual quotation. In that way it is easy and fast to create different quotation variants. Adaptations in quotations can be recognised during creation of an order and can be passed back to the project.

Through order release, the order value is codified for the project history. Thus, even in order processing, you still have an overview of the scope of the original project quotation.

## Make exact and fast statements using the checklist

The checklist offers great benefits even during the sales phase - even without the need for deep technical knowledge about the various product characteristics. For example, the checklist system checks the technical feasibility of a product specification and signals any necessary additional services (see fig. 3). In addition, a dynamic BOM can be generated that is used as a basis for quotation and individualization according to customer requirements.

The dynamic BOM is also available in the further process after receipt of the order as the starting base for instance for construction or manufacture.

**General**

No. CL00005 Language: ENU

Checklist Type: VERKAUF Automatic Recalculation: ON

Description: Förderanlage komplett Show Sub-Checklists: OFF

**Lines**

DESCRIPTION	INPUT	SEL.	INPUT TYPE	MESSA. EXISTS
Produktkonfiguration			Text	
Anlagentyp			Text	
Palettendrehvorrichtung		<input checked="" type="checkbox"/>	Boolean	
Riemenwinkelübergabe		<input checked="" type="checkbox"/>	Boolean	
Gabelwender		<input checked="" type="checkbox"/>	Boolean	
Transporteinheit		<input checked="" type="checkbox"/>	Boolean	
Leistung			Text	
kW	100		Decimal	
Dokumentation			Text	
Deutsch		<input checked="" type="checkbox"/>	Boolean	
Englisch		<input checked="" type="checkbox"/>	Boolean	
Französisch		<input checked="" type="checkbox"/>	Boolean	

**Summary Table:**

SPECIAL QUANTITY	MANUAL PRICING	DIRECT UNIT COST	TOTAL DIRECT COST BUDGET
		1.500,00	3,00
		2.500,00	10,00
		15.686,00	15,68
		40,00	1,60
			39,43
Direct Unit ...	5.000,00	5,00	

Fig. 3: Checklist Configure-to-Order

## Project Workflow Planning and Scheduling

In addition to planning costs and revenues, **COSMO Project** also supports the planning and scheduling of projects and their workflows. The integrated resource planning allows you to keep track of departmental and employee utilisation even across different projects. Individual process steps and the time required for these can be derived from the planning processes specified in the project work breakdown structure (see fig. 4). The process steps can be linked together through predecessor relationships and can thus be rescheduled at any time.

## Microsoft Project Interface

A bi-directional interface is used for exchanging data with Microsoft Project. Therefore, the workflow plan for a project can be displayed graphically and modified in MS Project. Changes are transferred back to **COSMO Project** if desired, and are then available to all members of the project team.

## Capacity and Resource Planning

Available capacities for each employee can be assigned using an integrated calendar and the usage of work time templates. Therefore, a capacity overload or free capacities of a single employee is visible.

The utilisation of individual company departments can be illustrated via resource groups. Thus, you can detect bottlenecks at an early stage and take the relevant action.

## Complete project management support through integration into the ERP system

Project management also includes service provision, procurement, project delivery and invoicing to the customer. Because **COSMO Project** is fully integrated in the Microsoft ERP system, you are able to plan your project quick and easy and control the resulting processes.

PROCESS NO.	PLANNING STATUS	PROCESS ID	PREDECESSOR ID	DESCRIPTION	MILESTONE	WORK QUANTITY	WORK FORMAT	DURATION QUANTITY	DURATION FORMAT	CONSTRUCTION TYPE	PROCESS TYPE FIXED	START	FINISH
PPR0000017	Release	1		Project Start	<input checked="" type="checkbox"/>					MSON		01.04.2019	01.04.2019
PPR0000022	Release	6		Project Management	<input type="checkbox"/>	400	h	10	w	ASAP	Work	01.04.2019	19.08.2019
PPR0000023	Release	7	8	Construction (electric)	<input type="checkbox"/>	200	h	5	w	ASAP	Work	22.04.2019	24.05.2019
PPR0000024	Release	8	1	Construction (mechanical)	<input type="checkbox"/>	120	h	3	w	ASAP	Work	01.04.2019	19.04.2019
PPR0000018	Release	2	1:7	End of Construction	<input checked="" type="checkbox"/>					MFO		31.05.2019	31.05.2019
PPR0000025	Release	9		SW Development	<input type="checkbox"/>	500	h	12.5	w	ASAP	Work	01.04.2019	26.06.2019
PPR0000026	Release	10		Plant	<input type="checkbox"/>								
PPR0000019	Release	3	2	Procurement Start	<input checked="" type="checkbox"/>					MSON		10.06.2019	10.06.2019
PPR0000027	Release	11		Mechanic	<input type="checkbox"/>								
PPR0000028	Release	12		Electric	<input type="checkbox"/>								
PPR0000029	Release	13		Control Unit	<input type="checkbox"/>								
PPR0000030	Release	14	3	Production	<input type="checkbox"/>	40	h	1	w	ASAP	Work	11.06.2019	17.06.2019
PPR0000020	Release	4	3	Assembly Start	<input checked="" type="checkbox"/>					MSON		15.08.2019	15.08.2019
PPR0000021	Release	5	4	End of Project	<input checked="" type="checkbox"/>					MFO		01.11.2019	01.11.2019

Fig. 4: Planning Processes

For all processing steps, there is a planning and release functionality. This means you can control which work packages and which procurement processes from the project structure should be performed. Release automatically forwards demands to purchase, generates warehouse requirements or production orders and releases work packages for booking. This ensures that the supporting company units are fully integrated project management process. This is the basis for creating project-based purchase orders in good time, optimize warehouse stocks in the project transaction and supply a solid planning basis for work preparation and production (see fig. 5).

Through status notifications on the processing processes, which can be viewed directly in the project structure, you can track the project execution transparently. This means the project team always has an overview of the distributed actions which are required for successful project management.

With **COSMO Project** you always have component planning and controlling under control. The decoupling of invoicing and dispatch through project-based delivery notes is available as standard, which is important in many projects.

COSMO Project supports the current accounting methods within projects:

- Billing at fixed price
- Billing on a costs and materials basis
- Billing on degree of completion
- Milestone-based accounting

Invoices can also be created in different currencies.

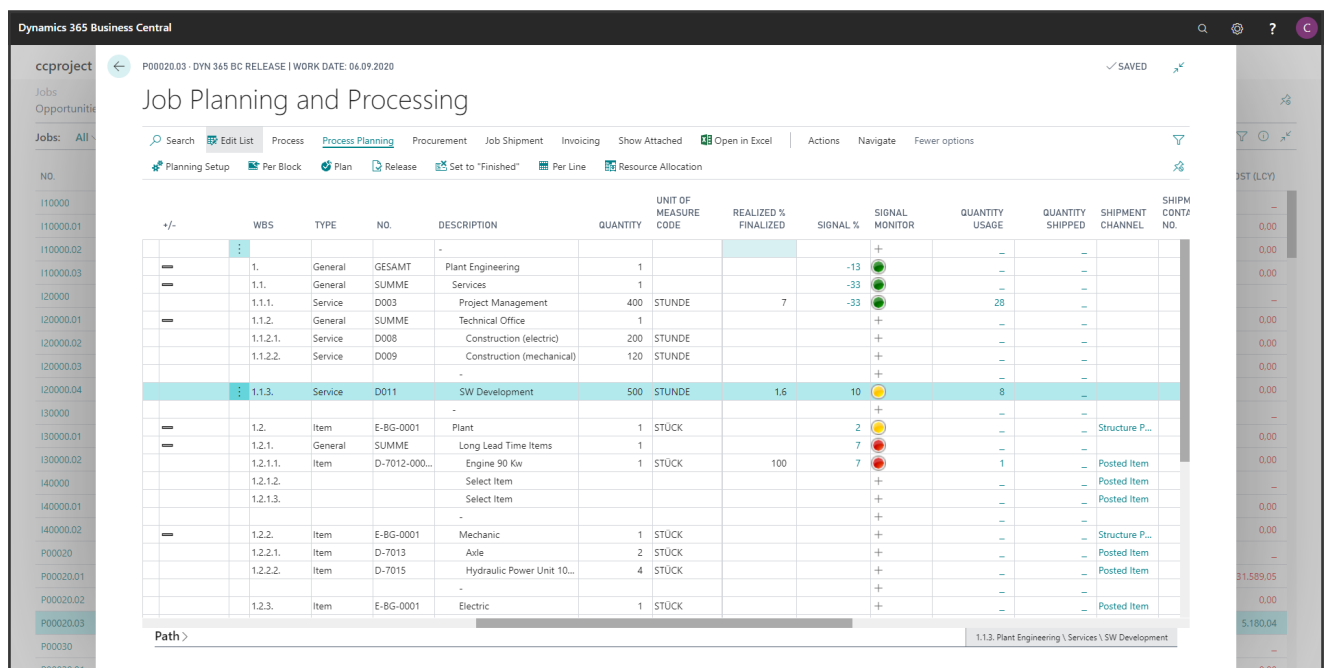


Fig. 5: Planning and Processing with Signal monitor

## Create the payment plan for your customers

The optionally available integrated pre-payment management tool takes all tax conditions into account and illustrates a further significant integration advantage for the sales employee and for the subsequent departments (see fig. 6). Thanks to the data agreed in the payment plan, you receive on time suggestions for invoicing of the respective pre-payments or final invoice. As an option, the information from the payment plan can be incorporated in your company's liquidity forecast.

## Project Evaluation

With COSMO Project, the often very time-consuming accounting evaluation of projects can be performed automatically. Thus, you can always see at what value and on what basis projects were capitalised on a due date or recognised as liabilities through accruals for future costs or impending losses. At project completion the consumption or resolution of activations and passivation's occurs at last due date.

## Project Navigate

During the project processing an increasing number of documents, which are associated with the project, are created in individual company areas such as Sales,

Purchasing, Warehousing and Production. In order to maintain transparency these documents are illustrated in a structured manner in the project documents. By mouse click you can directly access the relevant document in Microsoft Dynamics 365 BC on-premises quick and easy.

## IDS Interface

Networking with wholesalers is supported by the IDS interface. The IDS web shop interface is used for automatic communication between the Microsoft Dynamics ERP software and various on-line systems of wholesalers, such as Würth, Hagemeyer, Sonepar and GC Group. It is essentially based on the following functions:

- Send data and instructions from the ERP system to the web shop and
- Receiving data and instructions from the web shop back to the ERP system.

With the IDS interface, a connection to a web shop can be established directly from the project budget calculation, the procurement planning or in the requisition worksheet. Web shop carts are exchanged bidirectionally. In addition, purchases can be ordered directly online.

WBS	DESCRIPTION	COMM. SALES	QUANTITY	UNIT OF MEASURE CODE	UNIT PRICE	SALES LINE AMOUNT	SALES QUOTE	SALES ORDER	TOTAL COST USAGE SP (LCY)	REALIZED % BASED ON COST	SALES CODE	INVOICL. ON HOLD	INVOICL. PLANN.	TI
1.	Plant Engineering		1		98.340,00	98.340,00		Yes	4.740,03	7,8	ORDER			0,00
1.1.3.	SW Development		500	STUNDE	124,39	62.195,00	Yes		440,01	1,6	T+M		Yes	0,00
1.2.5.	Plant		1	STUCK	15.609,513	15.609,51			-		FP			0,00
1.5.	Shipping Fee		1	PAUSCH	6.219,524	6.219,52			-		FP	Yes		0,00
1.6.	Installation & Startup Supp...		24	STUNDE	65,678	1.576,27			-		T+M			0,00

Fig. 6: Invoice Planning/Sales View

## Projekt-Controlling

In addition to the status information provided online the system also calculates further indicators that can be used for monitoring your projects. Projects can also be grouped into project groups for analysis and reporting.

The "Signal Monitor" processes cost and progress information and visually illustrates the actual expenses for the relative cost budget ("Traffic Light").

In the concurrent calculation the main information for all project phases are displayed in one window. This information can also be prepared and transferred to Microsoft Excel (see fig. 7).

**COSMO Project** is an industry solution which helps you to optimize the implementation of business processes in project planning and controlling.

## Zusatz-Apps

- COSMO Task-based Planning
- COSMO Factory Data Capture
- COSMO Mobile Solution
- COSMO Quality Management
- COSMO Prepayment Management
- COSMO Workflow Management
- COSMO Document Management System
- and much more

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### Job Rolling Calculation

Search Edit List Process Calculation Processing Show Attached Open in Excel More options

Position Card Ledger Entries Job Documents Signal Monitor

NO.	WBS	DESCRIPTION	COMM.	TOTAL COST BUDGET (LCY)	SALES LINE AMOUNT BUDGET (LCY)	PROFIT AMOUNT BUDGET (LCY)	TOTAL COST USAGE (LCY)	REALIZED % FINALIZED	SIGNAL %	SIGNAL MONITOR	TOTAL PRICE RELEASED (LCY)	SALES INVOICE	TOTAL POS
110000.03													0.00
120000													-
120000.01													0.00
120000.02													0.00
120000.03													0.00
120000.04													0.00
130000													-
130000.01													0.00
130000.02													0.00
140000													-
140000.01													0.00
140000.02													0.00
P00020													-
P00020.01													31,589.05
P00020.02													0.00
P00020.03													5,180.04
P00030													-
P00030.01													0.00
P00030.02													0.00

Path  
1.1.3. Plant Engineering \ Services \ SW Development

Fig. 7: Concurrent Calculation with Signal monitor

Austria • Chile • China • Columbia • Ecuador • France • Germany • Hungary  
Mexico • Panama • Peru • Romania • Spain • Sweden • Switzerland

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