



CASE STUDY:

Automated CI/CD pipeline
for Dynamics 365 CE with


Kupp Deployment Manager

By Robert Pröll



KDM vs Manual Deployment

Many companies using Dynamics CRM/CE still handle their deployment process manually, which works but carries several risks that result in failed deployments. Furthermore, planning and maintaining a manual deployment guideline is time-consuming and error-prone. Below are 3 common approaches:

Manual	 KDM	Community tools
<ul style="list-style-type: none">✓ Free✗ Documentation efforts → Time-consuming✗ Human- error risks → failed deployment	<ul style="list-style-type: none">✓ One-stop-shop solution✓ Enterprise-focus✓ Enterprise-SLA✓ Support most frequent features (i.e., Power Automated Flow)	<ul style="list-style-type: none">✓ Automated deployments✗ Multiple tools✗ Dynamics config data not supported✗ Limited to DevOps, not always compatible with customer infrastructure

Case Study

Project Overview:

Type: Enterprise project

Users: 1.000

Duration: 2 years

Primary Goals:

- Reduce technical efforts & resources
- 24h Test/UAT Feedback circle –
- Scheduled deployments automatically (out-of-business-hour)
- Full end-to-end release management process
- Integrated to existing infrastructure (via Azure DevOps)

“A good enterprise approach is to have at least **4 environments**. Depending on the team and strategy, multiple deployments per *week are necessary*” – Robert Pröll



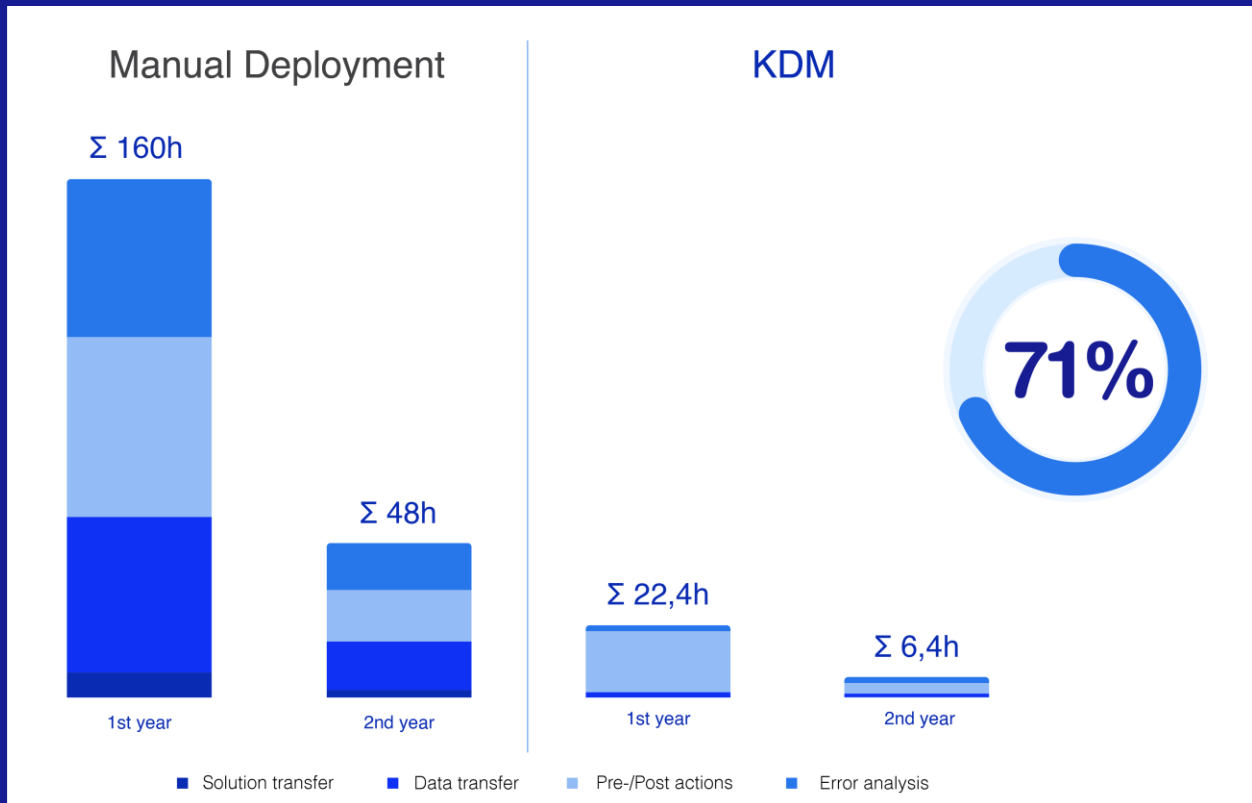
Common Deployment Workload

	Deployments / Month	Deployments / Year	Hour / Month	Hour / Year
DEV	10	120	10h	120h
INT	4	48	4h	48h
PrePROD	1	12	1h	12h
PROD	1	12	1h	12h
Total	16	192	16h	192h

*based on an avg. duration of 50 min – 1 hour per deployment.

Deployment Task Breakdown

The deployment process usually consists 4 key categories including: solution transfer, data transfer, pre/post actions, error analysis as below:



* Calculations are made based on enterprise project experience.

Depending on project complexity, planning efforts and compliance regulations, a fully automated deployment pipeline can reduce efforts **up to 71%**

Cost Comparison

Many enterprises tend to have external consulting services to handle their deployment processes, especially if they do not have an automated CI/CD pipeline. Hence, the cost below is based on total consulting hours for deployment tasks each year.

Consulting cost (per hour)	150 €
Average deployment hours – 1 st year	192
Average deployment hours – 2 nd year**	60

Cost (Enterprise size)	KDM Professional	Manual Deployment
Monthly Licensing cost	180 €	
Avg. monthly consulting costs in 2 years		$37800\text{€}/24$ = 1575 €
1 st year	2 160 €	28 800 €
2 nd year	2 160 €	9 000 €
Total costs	4 320 €	37 800 €



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