

# A Non-Developer's Guide to Smarter Sales Processes in Microsoft Dynamics CRM 2015

## Part 3: Pipeline Development

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# About This Presentation

- These are the slides from a live webcast on MSDynamicsWorld.com, presented on May 6th 2015
- The webcast recording is available on YouTube: <http://bit.ly/crm15salesprocess>
- The topics are covered in more detail in blog posts at <http://survivingcrm.com/>



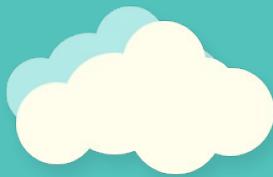
# About Me

- Dynamics CRM consultant from Helsinki
- Working at [Digital Illustrated Finland](#)
- Dynamics CRM addict since 2005
- Frequent blogger & #MSDYNCRM evangelist on social media
  - Blog: [survivingcrm.com](#)
  - [@jukkan](#) on Twitter
- Microsoft MVP since 2013
- Focused on improving CRM solution usability & information work efficiency



Jukka Niiranen  
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Consultant @ Digital Illustrated  
Microsoft Dynamics CRM MVP

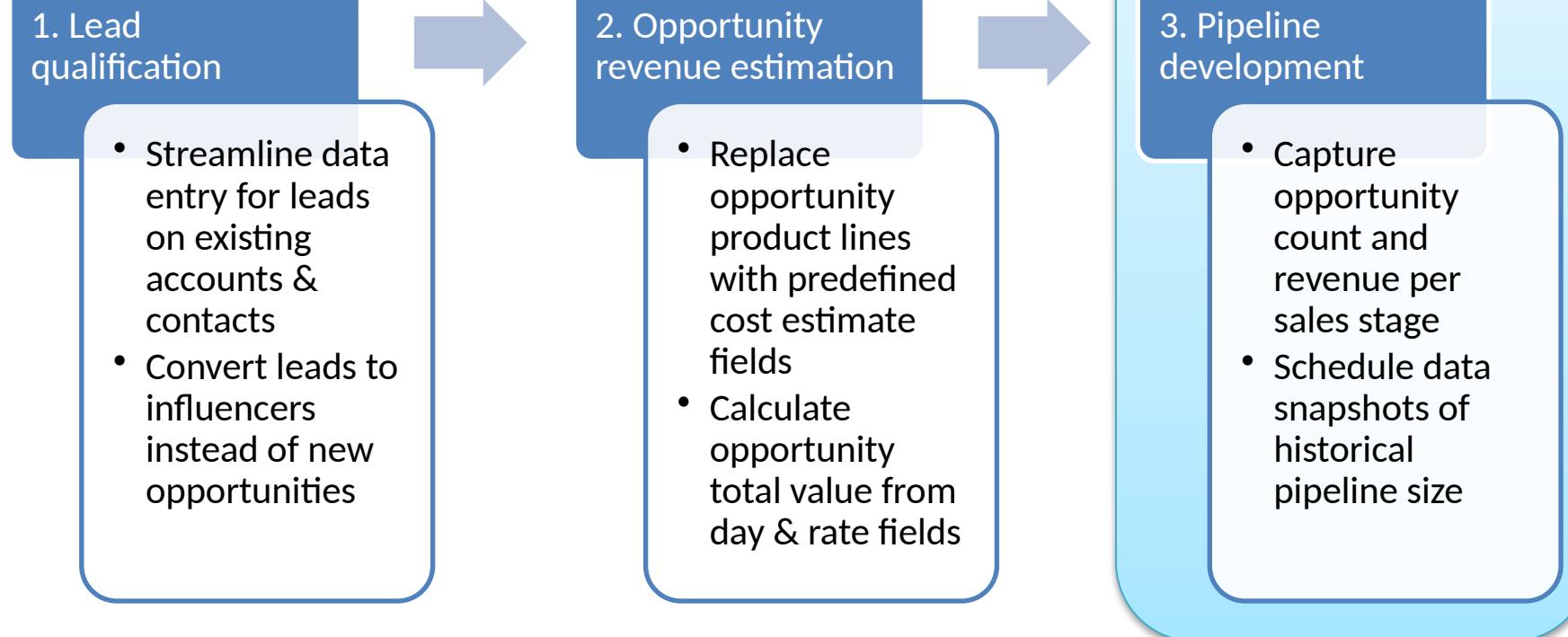


# Customizing Dynamics CRM as a Non-Developer

- Point & click configuration/customization tools of Dynamics CRM have come a long way
- The ratio of custom code vs. configuration in typical CRM solutions is decreasing
- Solution delivery often requires the creative *combination* of several CRM configuration options
- The goal of this article series is to demonstrate a few scenarios where such combinations are used for delivering new functionality for the CRM sales process



# Customization Scenarios Explored in This Series



# Pipeline Development





# The Problem

- CRM gives an up-to-date status of the current sales pipeline by opportunity sales stage
- Won or lost opportunities create a permanent record of when the deals were closed
- This is however not sufficient data to project what the size of the pipeline was at a *previous* point in time
- Therefore, it's not possible to see the development *trend* of the open opportunity pipeline from the standard CRM data model



# Current Pipeline View

Microsoft Dynamics CRM | SALES | Opportunities | [Create](#) [Search](#) [Print](#) [Jukka Niiranen](#) [Org 2](#) [Settings](#)

[NEW](#) [DELETE](#) | [COPY A LINK](#) | [EMAIL A LINK](#) | [RUN REPORT](#) | [EXPORT TO EXCEL](#) [IMPORT DATA](#) | ...

## Open Opportunities

Search for records

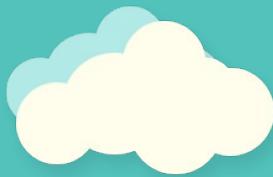
Topic	Potential Customer	Process Stage	Est. Close Date	Est. Rev
Fabrikam's CRM upgrade	Fabrikam, Inc.	2-Develop		
This isn't an opportunity!	WOW! Architects	2-Develop		
Will be ordering about 110 items of all types (sa...	Coho Winery (sample)	1-Qualify	31.3.2015	25 000,00 €
They sell many of the same items that we do - n...	Contoso Pharmaceuticals (...	3-Propose	30.4.2015	26 000,00 €
6 orders of Product SKU JJ202 (sample)	Fabrikam, Inc.	3-Propose	1.5.2015	10 000,00 €
MSE implementation	Litware, Inc. (sample)	1-Qualify	15.5.2015	
CRM upgrade analysis	Blue Yonder Airlines (samp...	2-Develop	21.5.2015	5 800,00 €
Needs to restock their supply of Product SKU AX...	Blue Yonder Airlines (samp...	2-Develop	29.6.2015	25 000,00 €
Very likely will order 18 Product SKU JJ202 this y...	Alpine Ski House (sample)	2-Develop	1.8.2015	30 000,00 €

Sales Pipeline

25 000,00 €  
60 800,00 €  
36 000,00 €

1-Qualify   2-Develop   3-Propose

*"Hmm, I wonder if our sales pipeline is healthier now than it was last month? Wish I would have taken a screenshot..."*



# The Solution

- Create a custom entity "Process Stage" to represent each stage in the opportunity business process flow
- Use Rollup Fields (new in CRM 2015) to collect information about open opportunity count and value in each stage onto this new entity
- Create a custom entity "Snapshot" to store historical data of the Rollup Field values
- Schedule a recurring workflow process to create new Snapshots once a week

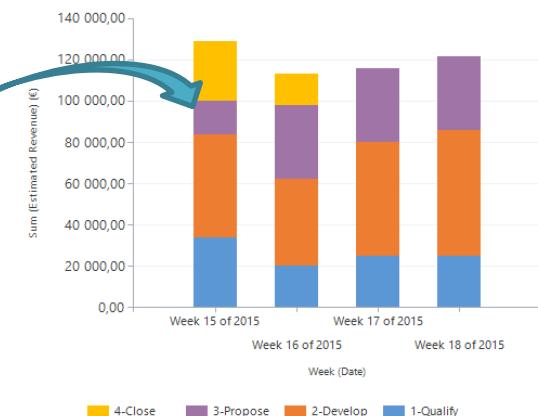
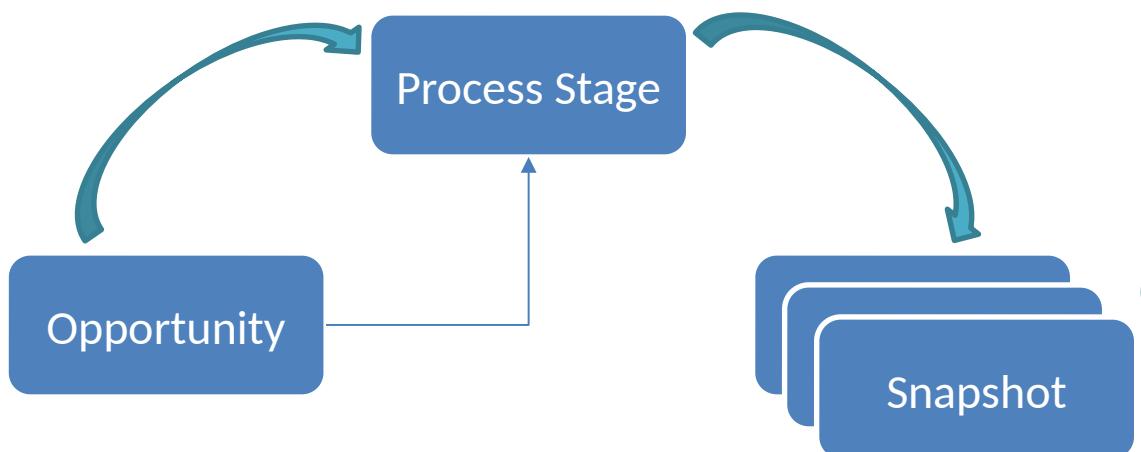


# Pipeline Snapshots: Solution Architecture

1. Rollup Fields automatically collect the metrics from open opportunities

2. Recurring workflow creates historical snapshots of these metrics

3. Snapshots are visualized via charts to show weekly pipeline trend





# Two Custom Entities

Solution: Solution 1  
**Components**

Solution Solution 1
Information
Components
Entities
Account
Contact
Lead
Opportunity
Process Stage
Snapshot
Option Sets
Client Extensions
Web Resources
Processes
Plug-in Assemblies
Sdk Message Processing S...
Service Endpoints
Dashboards
Reports
Connection Roles
Article Templates
Contract Templates
Email Templates
Mail Merge Templates
Security Roles
Field Security Profiles
Routing Rule Sets
Case Creation Rules
SLAs

Component Type	All	
New	Add Existing	
Delete	Remove	
Publish		
Show Dependencies	Add Required Components	
	Managed Properties	
Display Name	Name	Type ↑
Sales Pipeline	Sales Pipeline	Dashboard
Contact	contact	Entity
Account	account	Entity
Lead	lead	Entity
Snapshot	jukkan_snapshot	Entity
Process Stage	jukkan_processstage	Entity
Opportunity	opportunity	Entity
Stage Category	processstage_category	Option Set
Lead Type	jukkan_leadtype	Option Set
Lead to Opportunity or Influencer Sal...	Lead to Opportunity or Infl...	Process
Lead to Opportunity Sales Process	Lead to Opportunity Sales...	Process
Cost estimate to Est. Revenue	Cost estimate to Est. Reve...	Process
Process Stage Snapshot	Process Stage Snapshot	Process
Opportunity Process Stage	Opportunity Process Stage	Process
Qualify influencer lead	Qualify influencer lead	Process
jukkan_process_stage_32.png	jukkan_process_stage_32.p...	Web Resource
jukkan_process_stage_16.png	jukkan_process_stage_16.p...	Web Resource
jukkan_snapshot_16.png	jukkan_snapshot_16.png	Web Resource
jukkan_snapshot_32.png	jukkan_snapshot_32.png	Web Resource

Process Stage will be used as a lookup field on the opportunity records, to enable counting the Rollup Field values from related opportunities

Snapshot will be used for capturing copies of the Rollup Fields values from Process Stage entity



# Two Rollup Fields on Process Stage Entity

Create Rollup Fields that retrieve data from the open child opportunities related to each process stage

## ROLLUP FIELD

### Estimated Revenue

#### ▲ SOURCE ENTITY

Source: **Process Stage**

Use Hierarchy: **NO**

#### ▲ RELATED ENTITY

Related: **Opportunities (Process Stage)**

#### ▲ FILTERS (OPTIONAL)

If **Status** equals "Open"

+ Add condition

#### ▲ AGGREGATION

**SUM** of Est. Revenue

Use one Rollup Field to sum up the total estimated revenue

## ROLLUP FIELD

### Opportunity Count

#### ▲ SOURCE ENTITY

Source: **Process Stage**

Use Hierarchy: **NO**

#### ▲ RELATED ENTITY

Related: **Opportunities (Process Stage)**

#### ▲ FILTERS (OPTIONAL)

If **Status** equals "Open"

+ Add condition

#### ▲ AGGREGATION

**COUNT** of Opportunity

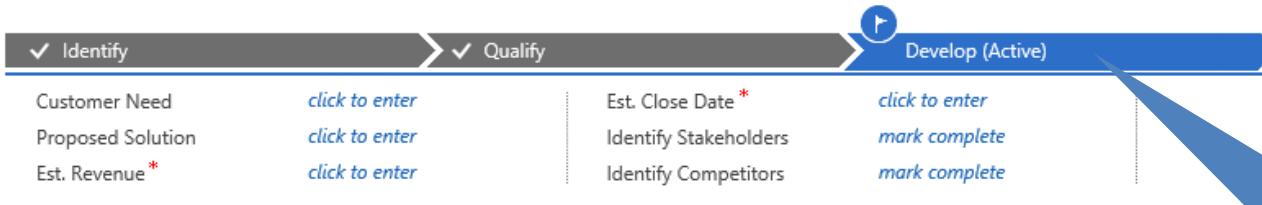
...And the other for counting the number of opportunities



# Linking Opportunities to Process Stages via Workflow

OPPORTUNITY ▾

Fabrikam's CRM upgrade

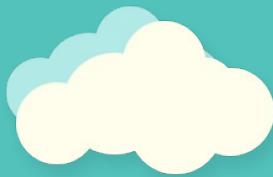


## Summary

Topic *	Fabrikam's CRM upgrade	POSTS	ACTIVITIES	NOTES
Contact	Mike Mitchell	<a href="#">Enter post here</a>		
Account	Fabrikam, Inc.	Both	Auto posts User posts	
Purchase Timeframe	--			
Currency *	euro	Mike Mitchell		Lead: Qualified by Jukka Niiranen and converted to Contact
Budget Amount	--			Mitchell, Opportunity Fabrikam's CRM upgrade.
Purchase Process	--			On Mike Mitchell's wall
Process Stage	<a href="#">2-Develop</a>			Yesterday
Description	They're on Dynamic CRM 2011 and need to catch up to the latest version.			<b>Fabrikam's CRM upgrade</b> Opportunity: Created by Jukka Niiranen for Account Fabrikam, Inc. On Fabrikam's CRM upgrade's wall

Whenever the Opportunity's BPF stage changes, run a workflow process...

...Which updates the custom Process Stage field with a value that matches the BPF stage



# Process Stage with Related Opportunity data

Use the standard Stage Category option set field to group data

Related opportunity values roll up to the Process Stage form

Microsoft Dynamics

SALES | Process Stages | 3-Propose

PROCESS STAGE  
3-Propose

General

Stage Category\* 3-Propose

Name\* 3-Propose

Opportunity Count 2

Last Updated On 4.5.2015 5:19

Estimated Revenue 36 000,00€

Last Updated On 4.5.2015 5:19

Owner\* Jukka Niiranen

Opportunities

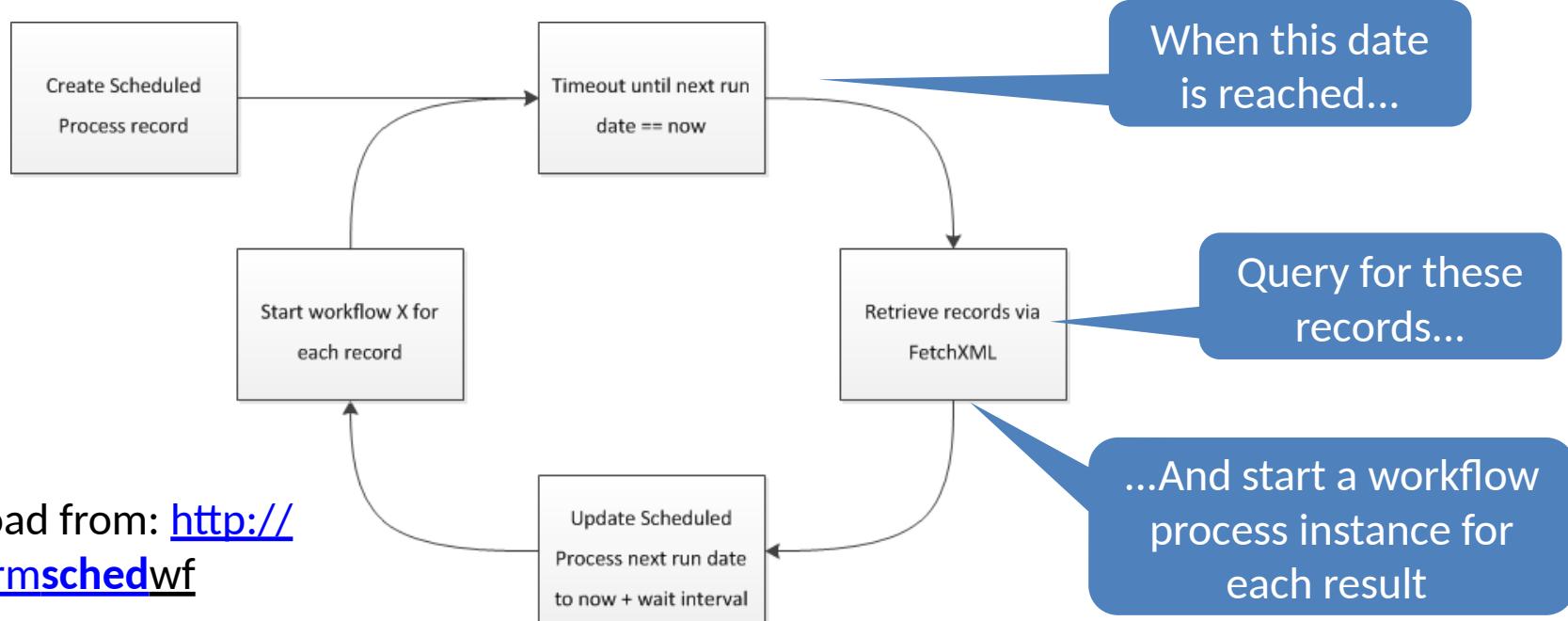
Topic	Potential Customer	Process Stage	Est. Close Date ↑	Est. Revenue	Rating	Owner
They sell many of the same items that we do - need t...	Contoso Pharmaceuticals...	3-Propose	30.4.2015	26 000,00 €	Hot	Jukka Niiranen
6 orders of Product SKU JJ202 (sample)	Fabrikam, Inc.	3-Propose	1.5.2015	10 000,00 €	Hot	Jukka Niiranen

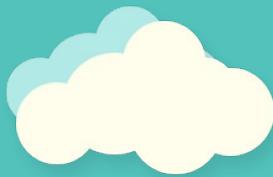
Related opportunities shown in subgrid for quick reference



# Solution: “Scheduled Recurring Workflows”

- Open source solution from [Lucas Alexander](#)
- Contains one custom workflow activity that allows you to run a specific workflow process weekly/daily/hourly on specific records





# Configuring the Scheduled Process

SCHEDULED PROCESS : INFORMATION

## Opportunity snapshots by Process Stage

**General**

Name *	Opportunity snapshots by Process Stage	Workflow	<a href="#">Process Stage Snapshot</a>
Entity type *	jukkan_processstage	Frequency *	Weekly
Last run date	28.4.2015 23:01	Next run date	5.5.2015 23:01

**QUERY**

```
<fetch version="1.0" output-format="xml-platform" mapping="logical" distinct="false">
<entity name="jukkan_processstage">
<attribute name="jukkan_name" />
<attribute name="jukkan_opportunitycount" />
<attribute name="jukkan_estimatedrevenue" />
<attribute name="jukkan_processstageid" />
<order attribute="jukkan_name" descending="false" />
<filter type="and">
<condition attribute="statecode" operator="eq" value="0" />
</filter>
</entity>
</fetch>
```

Which workflow process do we want to schedule?

When should the process be executed?

What's the (FetchXML) search criteria for records to run it on?



# Before Scheduling the Process

- We'll need the Fetch XML query criteria for the records the scheduled process will be searching for
  - In our case, all active Process Stage records
- Then we'll need the workflow process that we want to apply to all these records
  - A workflow process to create a Snapshot record with the current pipeline values per each Process Stage



# Grabbing the Query Criteria from Advanced Find

Select the Process Stage entity

Select "Download Fetch XML"

Look for: Process Stages

Use Saved View: Active Process

Download Fetch XML

Use Fetch XML to download your query in XML.

FetchXML.xml - Notepad

```
<fetch version="1.0" output-format="xml-platform" mapping="logical" distinct="false">
  <entity name="jukkan_processstage">
    <attribute name="jukkan_name" />
    <attribute name="jukkan_opportunitycount" />
    <attribute name="jukkan_estimatedrevenue" />
    <attribute name="jukkan_processstageid" />
    <order attribute="jukkan_name" descending="false" />
    <filter type="and">
      <condition attribute="statecode" operator="eq" value="0" />
    </filter>
  </entity>
</fetch>
```



# Process Stage Snapshot Creation Workflow

Process Name \*

Activate As

**Available to Run**

Run this workflow in the background (recommended)

As an on-demand process

As a child process

**Workflow Job Retention**

Automatically delete completed workflow jobs (to save disk space)

Entity

Category

**Options for Automatic Processes**

Scope

Start when:

Record is created

Record status changes

Record is assigned

Record fields change

Record is deleted

Workflow is created against the Process Stage entity, run as on-demand process

▼ Step description: None provided.

If Process Stage>Status equals [Active], then:

- Copy Process Stage record field values to a new Snapshot record

[Create: Snapshot](#) [View properties](#)

Creates a new Snapshot record with values copied from the current Process Stage Rollup Fields

Process: Process Stage Snapshot

**Create Snapshot**

▲ General

Date	<input type="text" value="Execution Time(Process)"/>	Stage	<input type="text" value="Stage Category(Process Stage)"/>
Owner	<input type="text" value="Owner(Process Stage)"/>	Estimated Revenue	<input type="text" value="Estimated Revenue(Process Stage)"/>
Name *	<input type="text" value="Snapshot of Process Stage Name(Process)"/>	Opportunity Count	<input type="text" value="Opportunity Count(Process Stage)"/>



# Snapshots Created

Microsoft Dynamics CRM | [SALES](#) | [Snapshots](#)

[NEW](#) [EDIT](#) [ACTIVATE](#) [DEACTIVATE](#) [DELETE](#) | [ASSIGN](#) [SHARE](#) ...

Active Snapshots

	Date ↑	Stage ↑	Estimated Revenue	Opportunity Count
	28.4.2015	1-Qualify	25 000,00 €	2
	28.4.2015	2-Develop	60 800,00 €	4
	28.4.2015	3-Propose	36 000,00 €	2
	28.4.2015	4-Close	0,00 €	0
	21.4.2015	1-Qualify	25 000,00 €	1
	21.4.2015	2-Develop	55 000,00 €	3
	21.4.2015	3-Propose	36 000,00 €	2
	21.4.2015	4-Close	0,00 €	0
	14.4.2015	1-Qualify	20 000,00 €	3
	14.4.2015	2-Develop	42 000,00 €	4
	14.4.2015	3-Propose	36 000,00 €	2

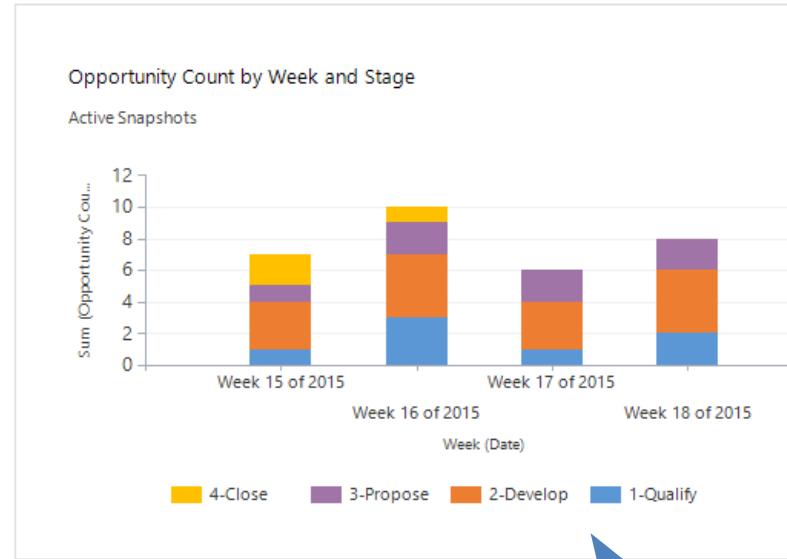
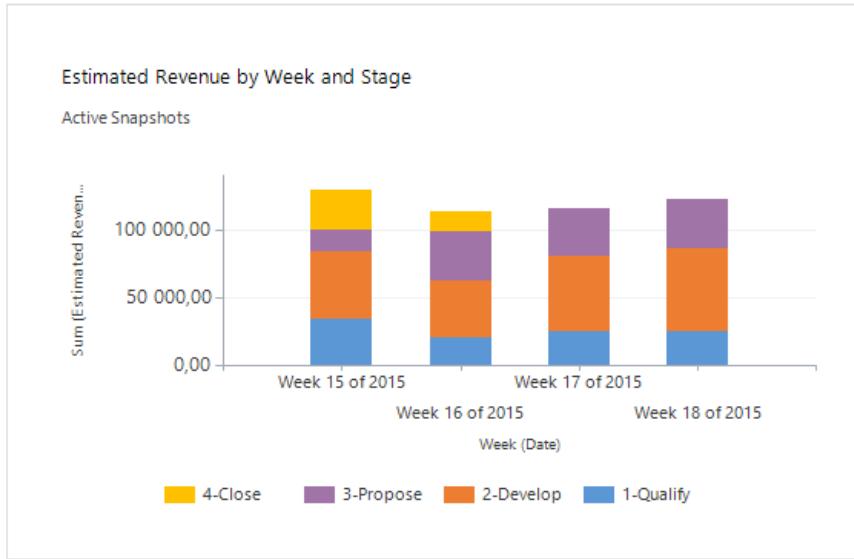
1 - 16 of 16 (0 selected)

The scheduled process will create new Snapshots for each Process Stage once a week



# Pipeline overview dashboard

## Sales Pipeline



## Open Opportunities

Search for records

Topic	Potential Customer	Process Stage	Est. Close Date	Est. Revenue
This isn't an opportunity!	WOW! Architects	2-Develop		
Will be ordering about 110 items of all types (sample)	Coho Winery (sample)	1-Qualify	31.3.2015	25 000,00 €
They sell many of the same items that we do - need to...	Contoso Pharmaceuticals...	3-Propose	30.4.2015	26 000,00 €
6 orders of Product SKU JJ202 (sample)	Fabrikam, Inc. (sample)	3-Propose	1.5.2015	10 000,00 €
MSE implementation	Litware, Inc. (sample)	1-Qualify	15.5.2015	
CRM upgrade analysis	Blue Yonder Airlines (sam...	2-Develop	21.5.2015	5 800,00 €
Needs to restock their supply of Product SKU AX305;...	Blue Yonder Airlines (sam...	2-Develop	29.6.2015	25 000,00 € Hot

Charts & dashboards can be used for summarizing the pipeline development trends

# Final Notes





# Next Steps

- Read more articles on Microsoft Dynamics CRM customization best practices at  
<http://survivingcrm.com/>
- Follow [@jukkan](#) on Twitter for the latest #MSDynCRM related news and tips
- Check out the Dynamics CRM webcasts series at  
<http://msdynamicsworld.com/webcasts>
- Thanks for viewing these slides & enjoy customizing your Dynamics CRM environment!