WARUM

2006: wir brauchen ein System zur Verwaltung und Publikation von Produktdaten (Medikamente)

AUTOMATISIERUNG

- Datenmenge/Sprachen
- Frequenz
- Anzahl Kanäle
- Maschinenlesbar

V1 RELATIONALER ANSATZ

- SQL DB und ASP.net
- Dokumente vs Tabellenschema 🌩
- Mapping von DB zu Klassen und HTML/XML 😓

V2 DOKUMENTEN-ORIENTERT, 50% XQUERY

- eXist-DB, XQuery und ASP.net
- ASP.net erwartet Objekte, kein XML 🌩
- XQuery Module in der DB gespeichert
- DB Performance variiert / Feintuning aufwändig

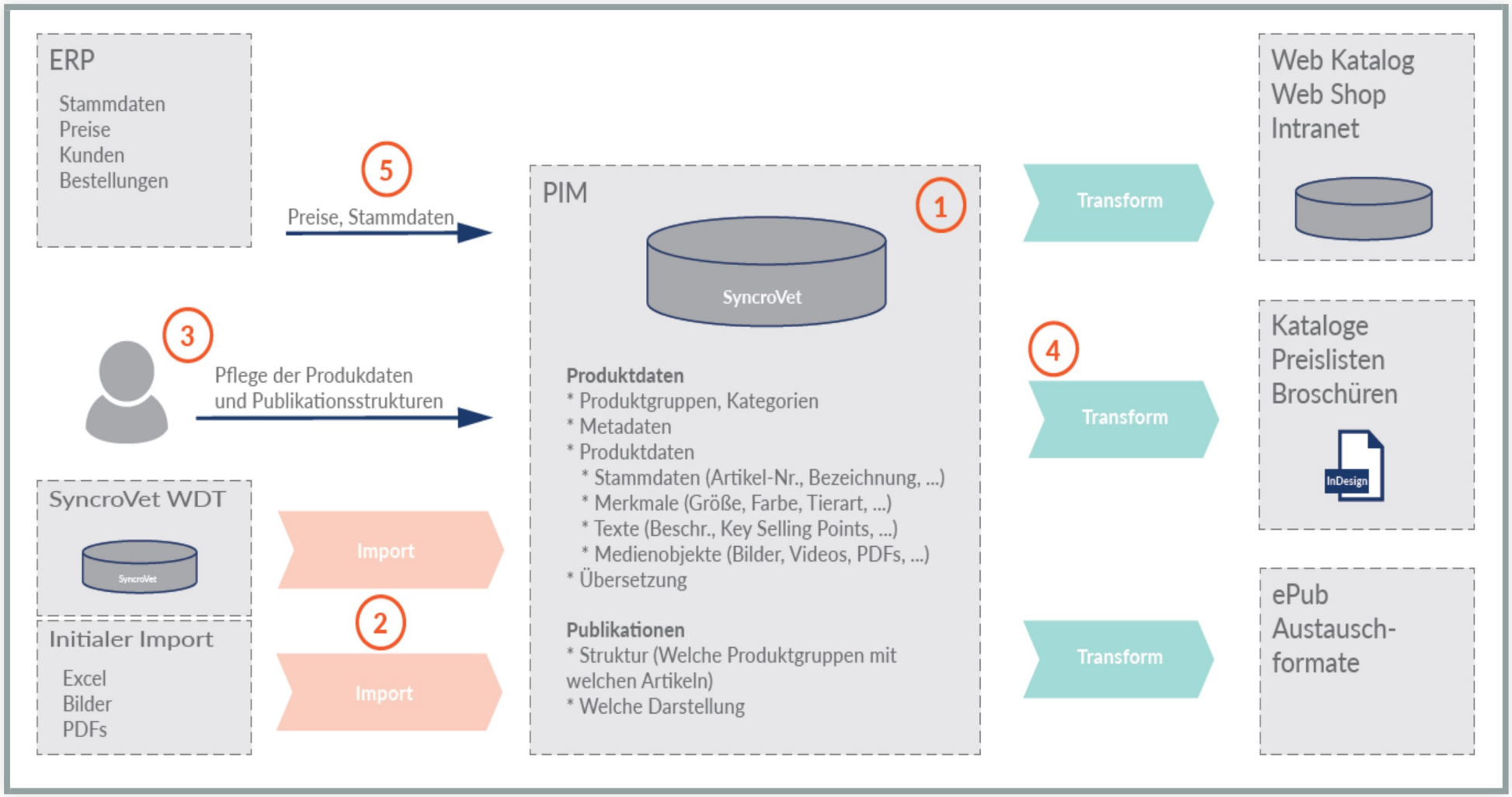
V3 DOKUMENTEN-ORIENTERT, 90% XQUERY

- BaseX, XQuery und RESTXQ
- XQuery Module als Dateien
- Schreibperformance ist limitiert (Single Writer)

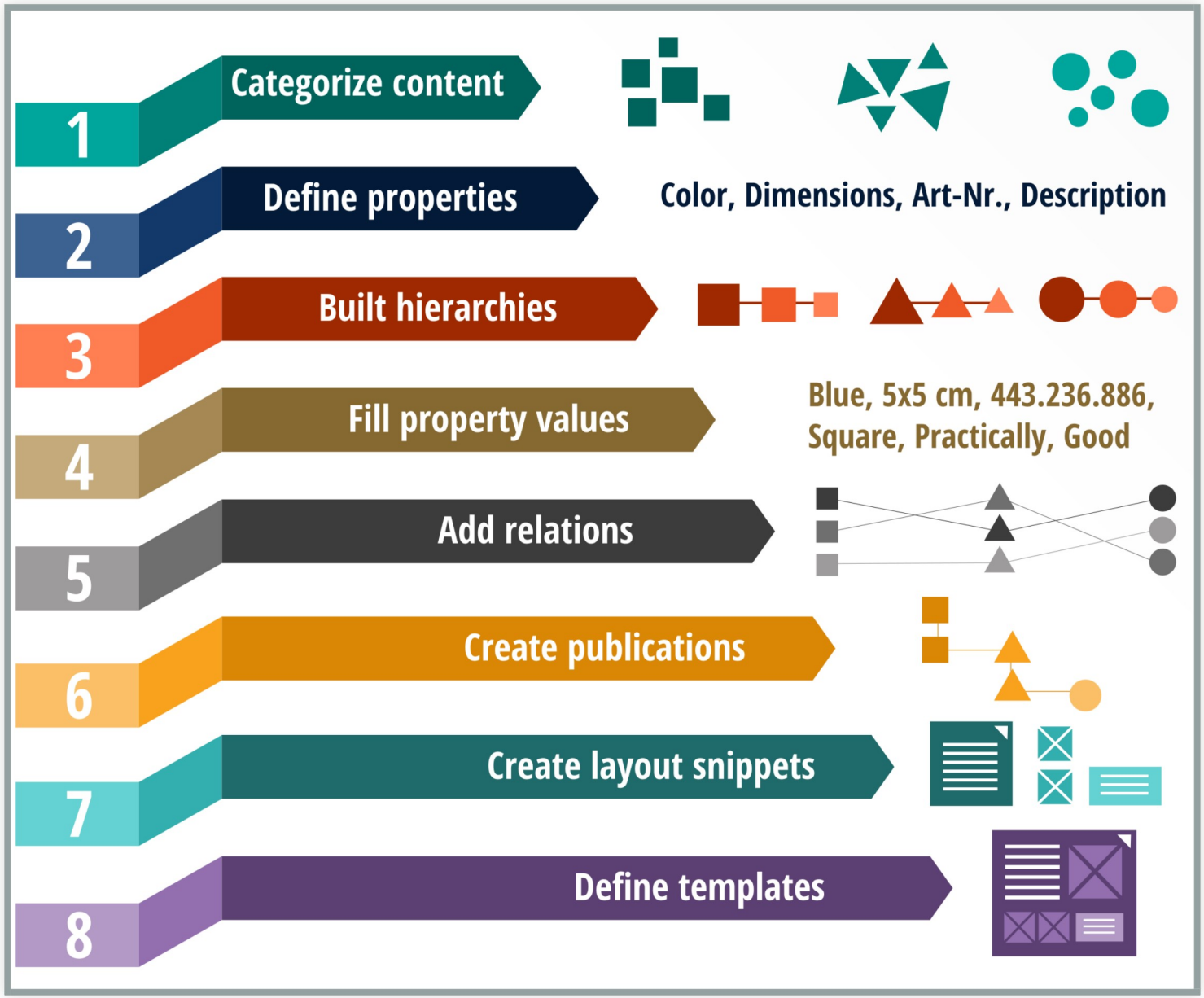
V4 BASEX UND GRAPH DB?

- tbd...
- tbd...

SYSTEMLANDSCHAFT



STRUKTURIERTER CONTENT



DEMO

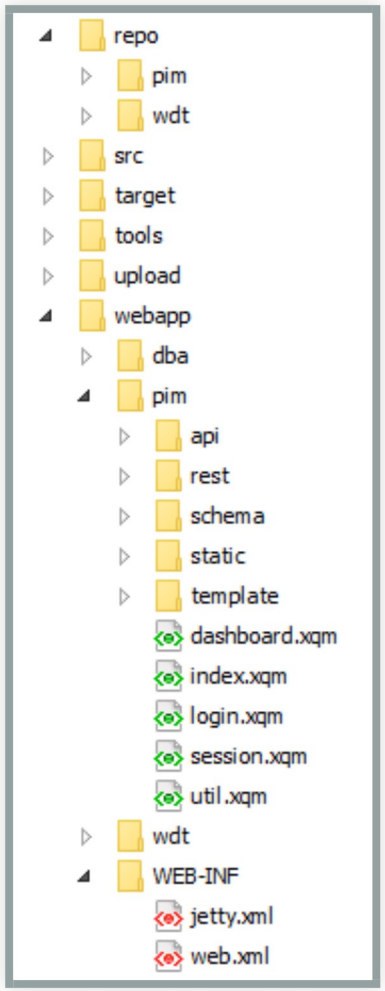
PIM auf localhost:8984

DBA auf localhost:8984

DB INDEX OPTIMIERUNG

Nutzung	Empfehlung
Häufige Einzelupdates (Elemente, Werte)	UPDINDEX, zyklisches optimize()
Austausch ganzer Dateien oder DBs	AUTOOPTIMIZE
Volltext Suche	FTINDEX, Eigene DB Strukturen
Große Datenbanken (hunderte MB)	Selective Indexing: TEXTINCLUDE usw.

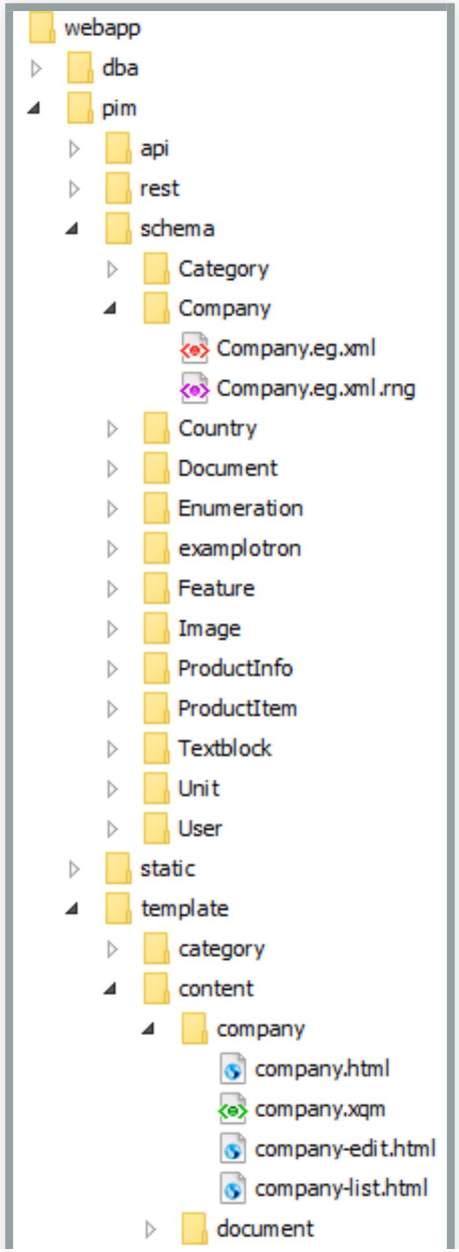
BASEX WEBAPPLIKATION

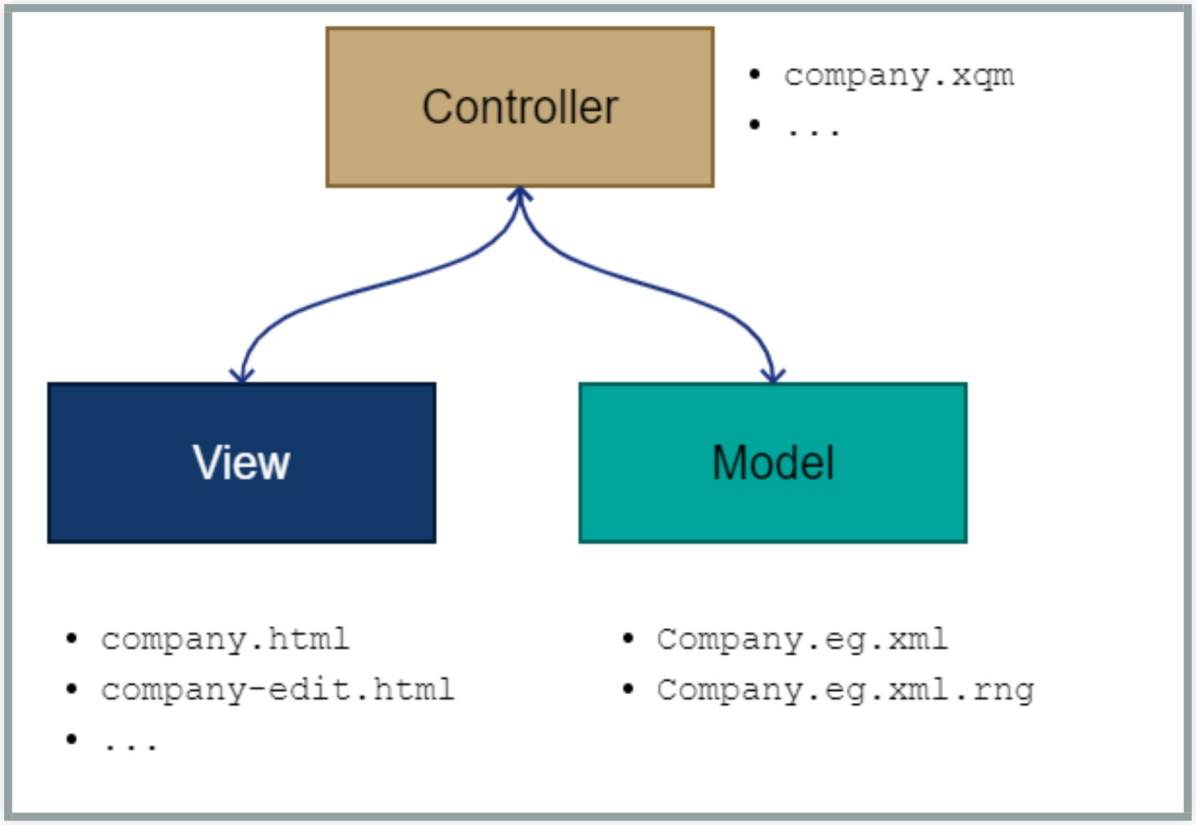


- BaseX als Modul/Dependency
- Servlet Container (Jetty)
- Standard Java Projekt (Maven)

Ordner	Inhalt
src	Java Klassen
webapp	RESTXQ Module und JS/CSS
repo	XQuery Module

MVC MIT X


webapp
dba
pim
api
rest
schema
Category
Company
Company.eg.xml
Company.eg.xml.rng
Country
Document
Enumeration
examplotron
Feature
Image
ProductInfo
ProductItem
Textblock
Unit
User
static
template
category
content
company
company.html
company.xqm
company-edit.html
company-list.html
document


Controller
• company.xqm
• ...
View
Model
• company.html
• company-edit.html
• ...
• Company.eg.xml
• Company.eg.xml.rng

MODEL (XML/RELAXNG)

```
1  <Company xmlns:eg="http://examplotron.org/0/">
2          <Data eg:content="interleave" Was="modified" At="2013-
3
4                  <Name>XUGS GmbH und Co. KG</Name>
5                  <Name2 eg:occurs="?"></Name2>
6                  <Description>Some longer text</Description>
7
8                  <Feature Key="Color" eg:occurs="*"></Feature>
9                  <K eg:occurs="*">Some Keyword</K>
10
11         </Data>
12 </Company>
```

Examplotron: eg:occurs, eg:interleave, eg:mixed, eg:group, eg:content, eg:assert
(~ 500 Zeilen XSL)

VIEW (XHTML/TAL)

```
1  <form tal:attributes="id $company-id" class="form-horizontal"
2     <div class="box" tal:attributes="id concat('box_', $company
3
4       <div class="box-body" data-element="Company" tal:attribut
5           <div class="row" data-element="Data">
6
7             <div class="col-md-12">
8               <input data-bind="$company/Data/Name" name="Bezei
9               <input data-bind="$company/Data/Name2" name="Beze
10            </div>
11          </div>
12      </div>
13      <div tal:repeat="brand $company/Data/Brand">
14         <span tal:content="$brand/Name"></span>
15      </div>
```

TAL Templates: tal:define, tal:condition, tal:repeat, tal:content, tal:replace, tal:attributes, tal:omit-tag (~ 185 Zeilen, XSL)
form.xsl: data-element, data-bind, data-control (~ 500 Zeilen XSL)

CONTROLLER (XQUERY)

```
1  declare
2    %rest:GET
3    %rest:path("/pim/{$view}/companies/({$param})/{$value}")
4    %rest:query-param("fulltext", "{$term}")
5    %output:method("xhtml")
6    %output:html-version("5.0")
7  function _:company-view($view as xs:string?, $param as xs:stri
8
9    let $companies :=
10       if($view = 'list') then fulltext:find-companies($term, (
11       else if($view = 'edit') then comp:get($value)
12
13   let $tpl := if($view) then doc(concat("./company-",$view, ".
14   let $xsl := xslt:transform($tpl, doc("../../tal2xslt_2.xsl")
15
```

XQuery (~ 80 Zeilen je Content Typ)

PUBLIKATION

HTML + html2indd.xsl = InDesign XML

```
function ruleParagraphs() {
    this.name = "ruleParagraphs";
    this.xpath = "//Para";
    this.apply = function (myElement, myRuleProcessor) {
        var myDocument = app.documents.item(0);
        with (myElement) {
            if (myElement.xmlAttributes.itemByName('aid:pstyle').
                var myStyleName = myElement.xmlAttributes.itemByNa
                if (myDocument.paragraphStyles.itemByName(myStyleN
                    var myStyle = myDocument.paragraphStyles.itemBy
                } else {
                    var myStyle = myDocument.paragraphStyles.firstI
                }
            } else {
                var myStyle = myDocument.paragraphStyles.firstItem
```

Demo!

Fragen!