



# CEN/ISO EN13606 in Sweden

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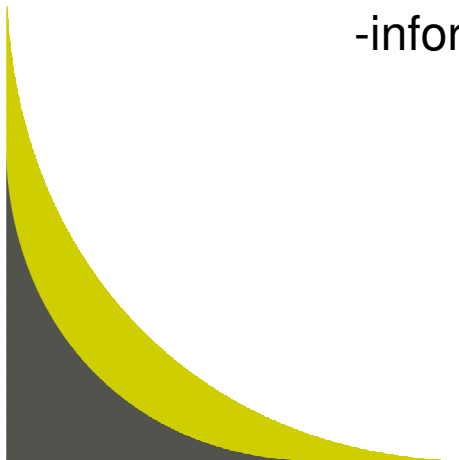
## **A national decision in Sweden on healthcare informatic standard**

The Swedish county councils have February 14th, 2008, decided:

The path for the development of an applied information structure for the Swedish health care and welfare is to follow and apply the European standard effort and its recommendations.

The architectural board for Healthcare has the task to:

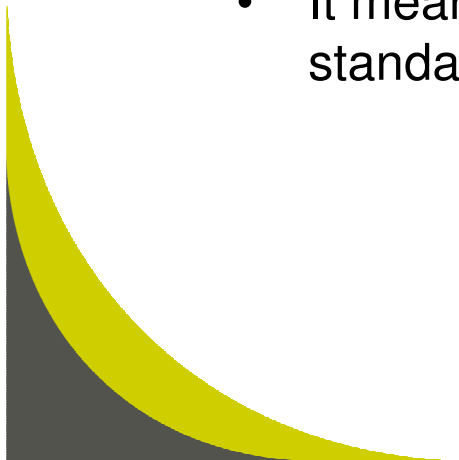
- validate the European standard effort
- develop a strategy for a migration to the selected standard
- inform and educate



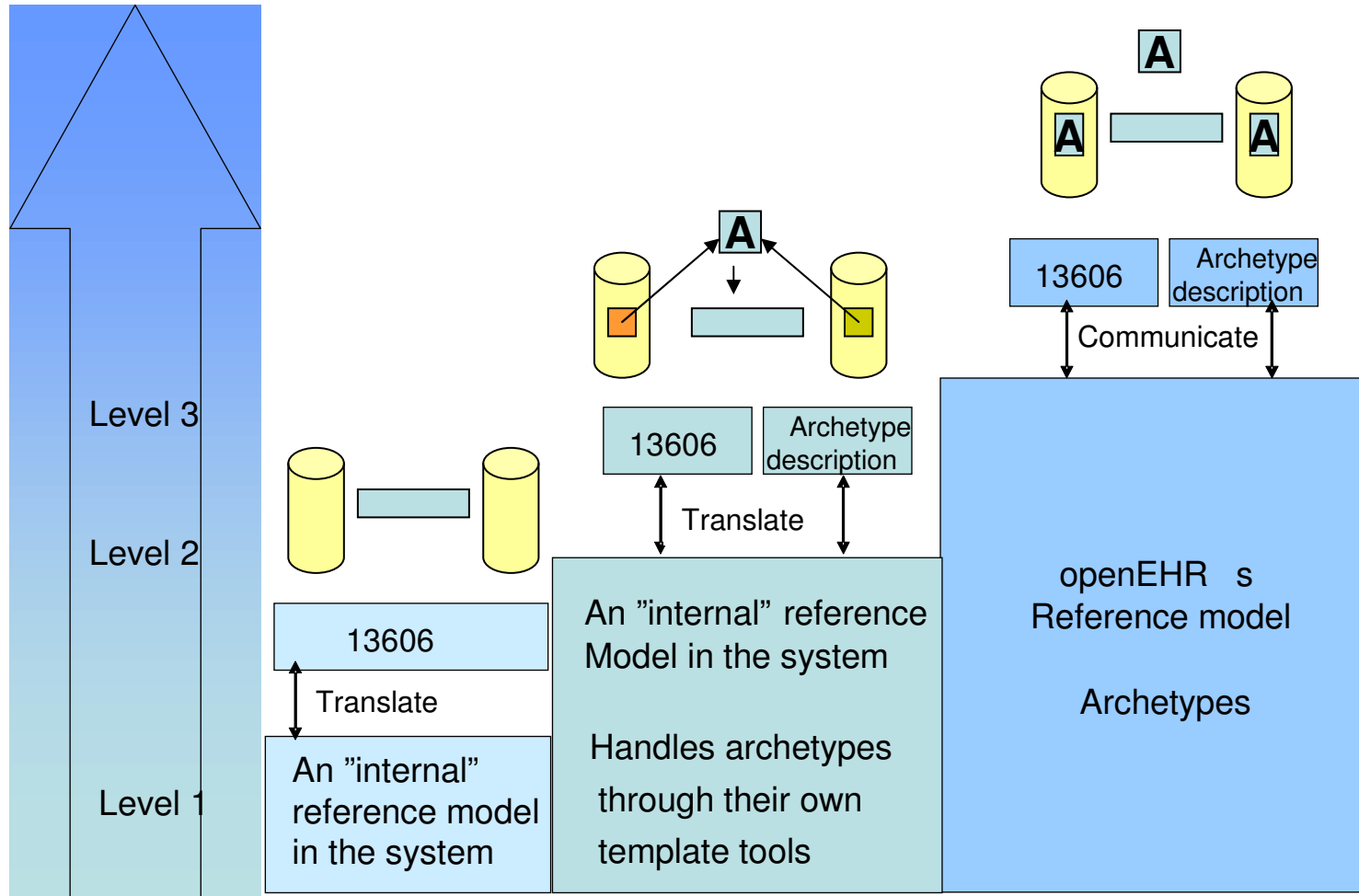
## A national decision in Sweden on healthcare informatic standard

The Architectural board for Healthcare has decided to use the standard EN13606 for the development of the common applicable information structure for ICT.

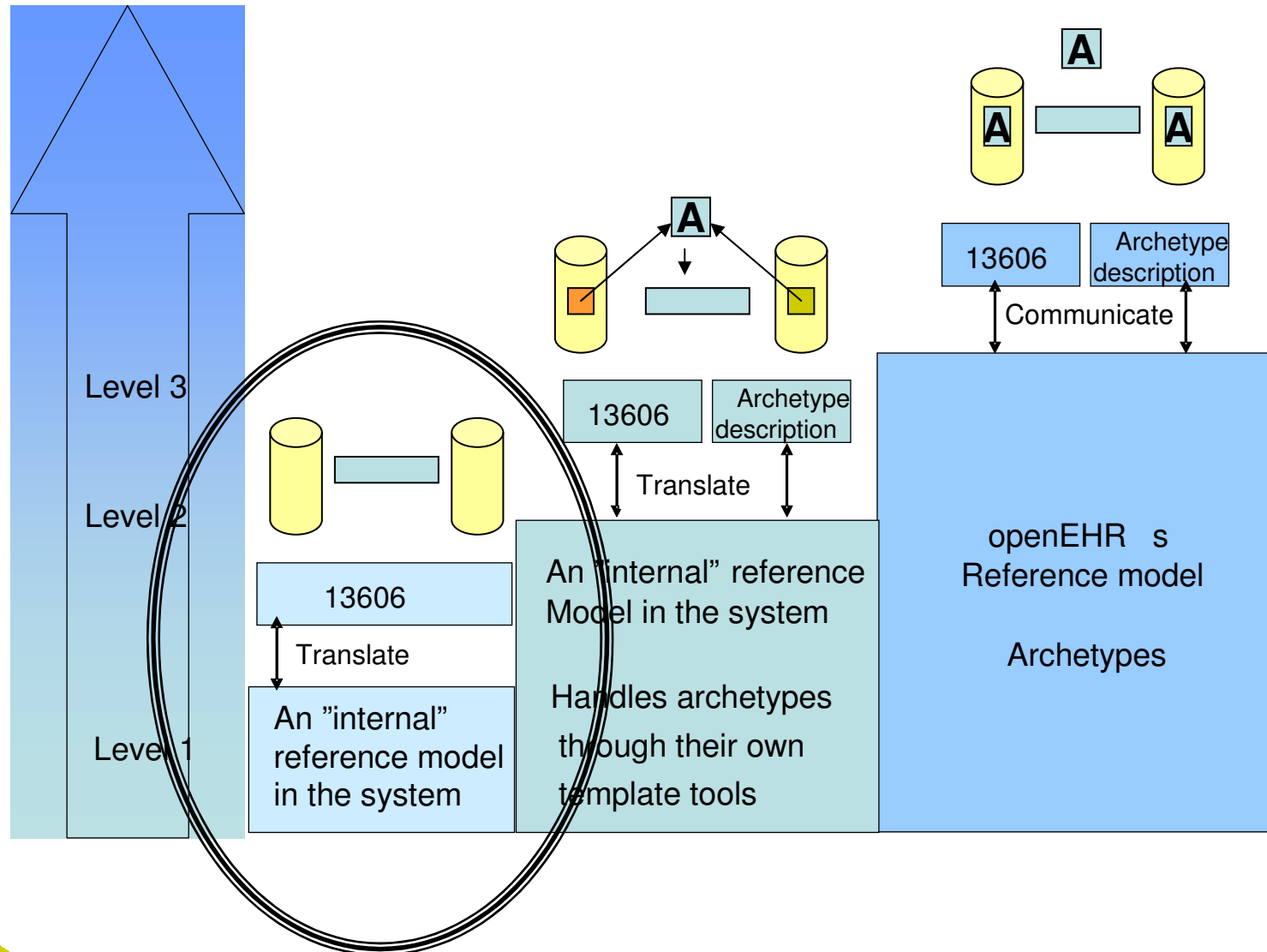
- It means that EN13606 -1, 2 and 3 (EHRcom) will be used as standard for the information structure including archetypes and templates.
- It means that EN13606 -1, 2 and 5 (EHRcom) will be used as standard for communication of information.



### National implementation in three step



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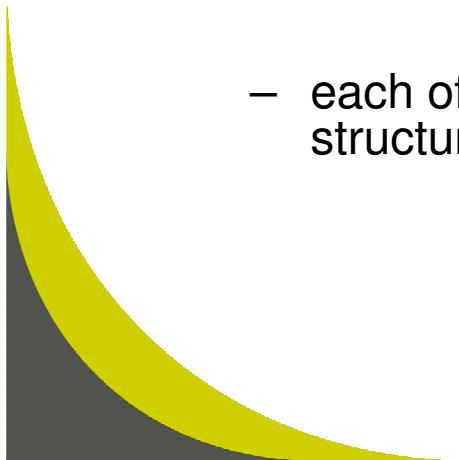


## A first step 2008 – The Swedish National Patient Summary (NPÖ)

Implemented in all swedish county Council - > 2012

Using EN13606 part 1 for communication- only

- the information in our different county councils are very different, and there is to a large extent no common structures or concepts
- structure according to the national applied information structure (V-TIM) – but most of the datatypes are text and very, very few codes
- each of these information structures are put in the EN13606-1-structure



## A first step 2008 – The Swedish National Patient Summary (NPÖ)

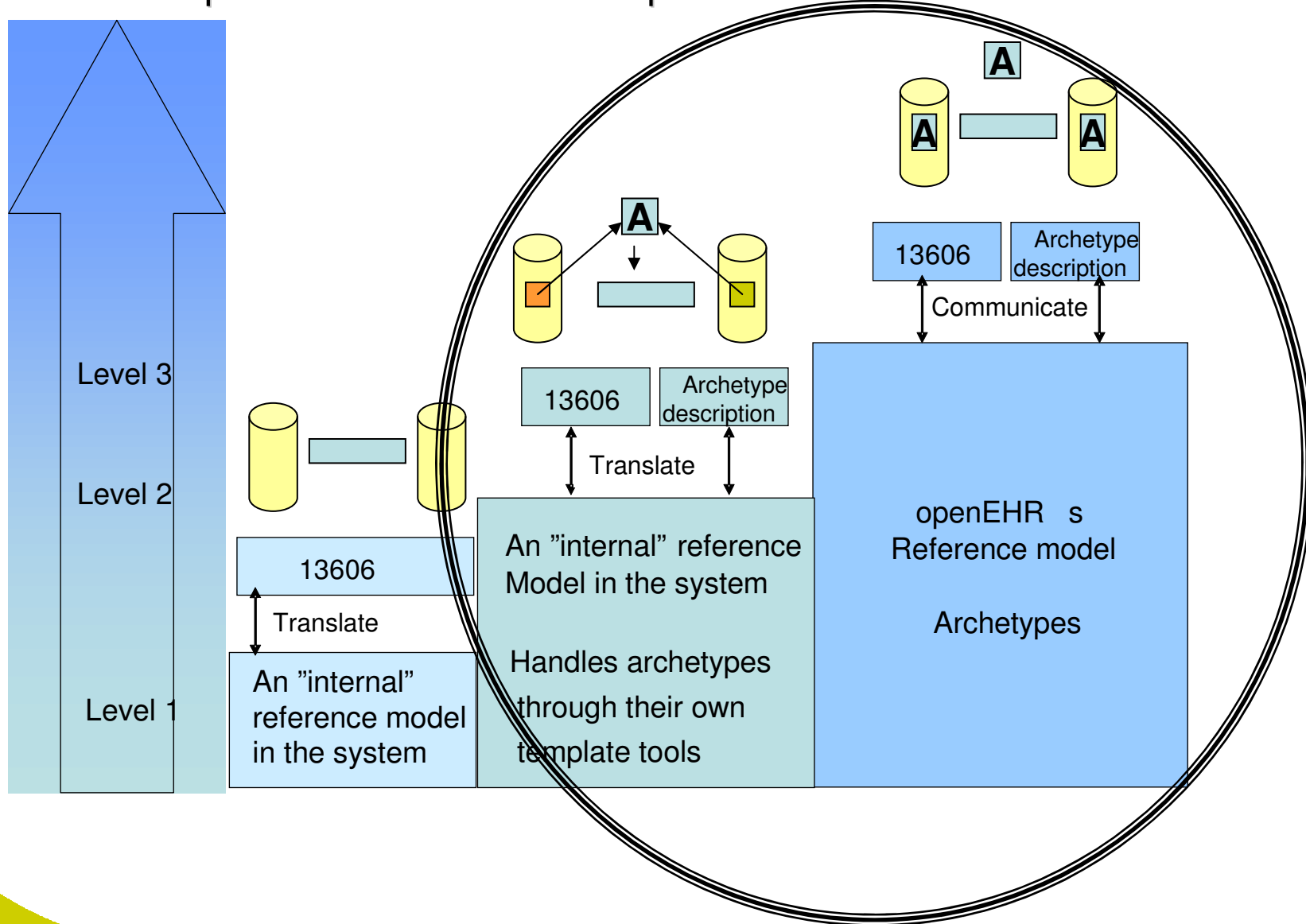
### Decisions:

- To use the ISO90210-datatypes
- Use XML-schema in three parts
  - Demographic
  - Extract
  - Datatype

### Problem:

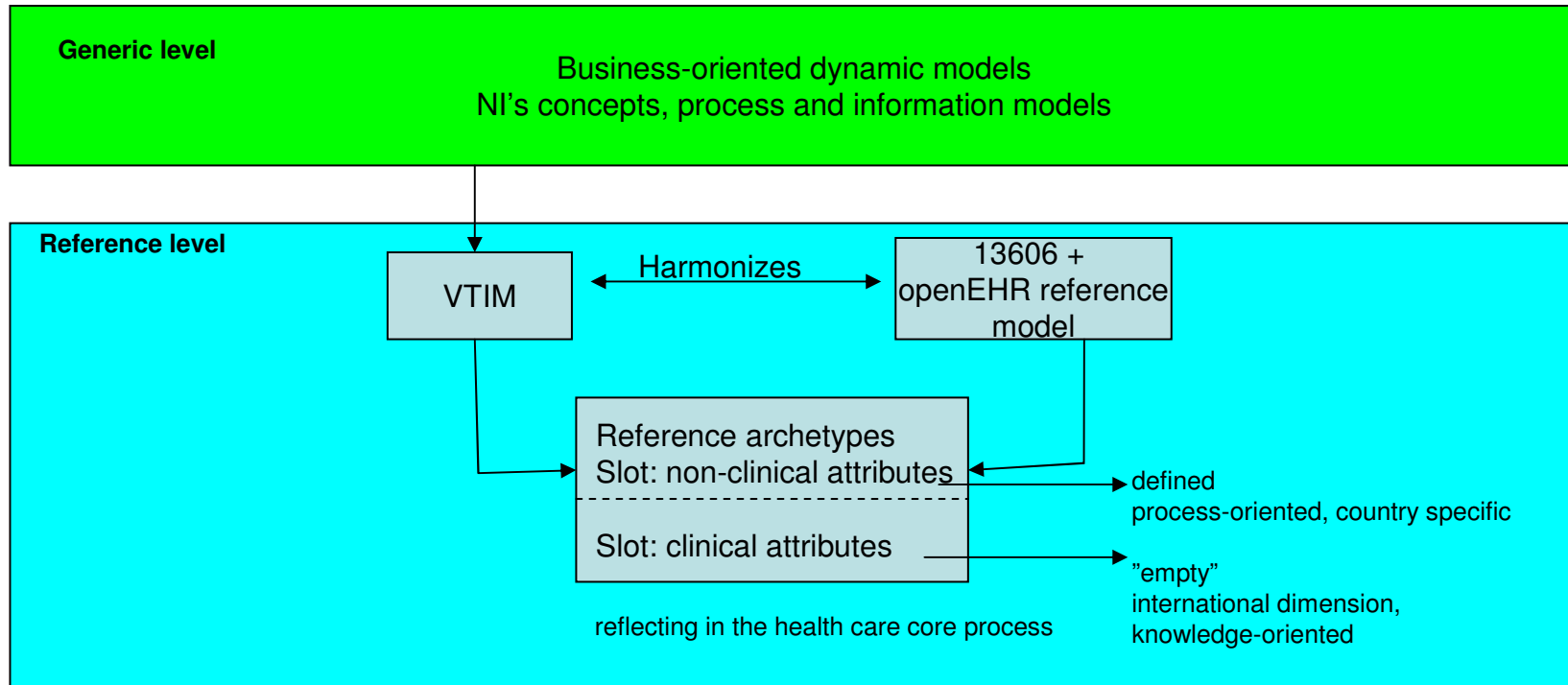
- No tool – from the information structures, put it in 13606-structure in the XML-schemas was made by hand!
- Too many mandatory attributes, in the datatypes -> big messages for simple unstructured information.

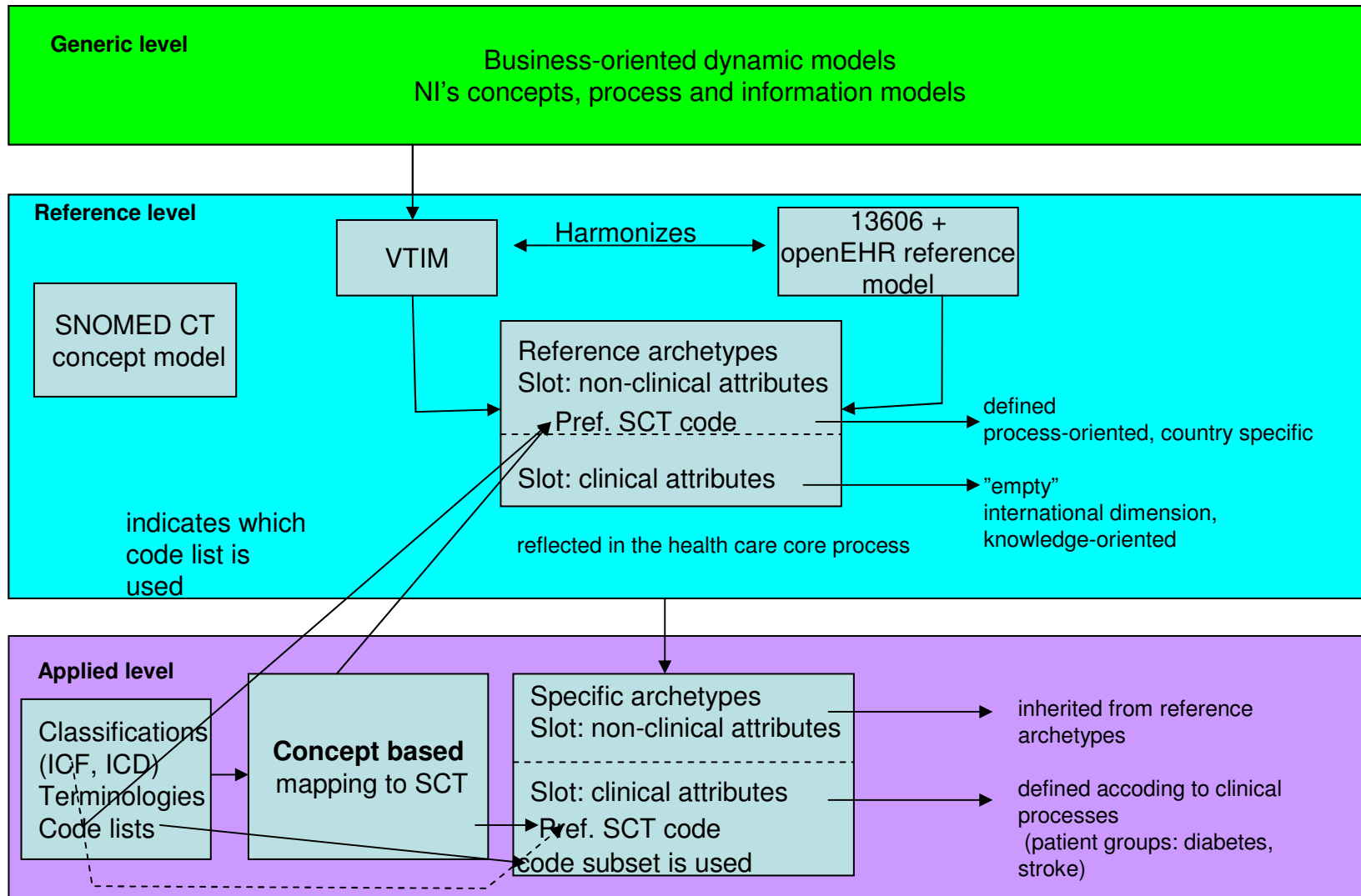
### National implementation in three step



## Archetypes as a way of capturing the information

- The first “archetype-project” :The national registers (IFK2)
  - Made archetypes and templates using (if possible) the existing international archetypes
- TOOLS are necessary
  - From archetype/template -> create XML-schemas
- Ocean Informatics approach to ISO 13606 conformance
  - *openEHR*-based systems can accept and process received 13606 data, and also can create and send it.
  - Start mapping the openEHR-extract to the ISO13606-extract
    - Some issues that is “minor”
    - BUT the big problem is the Datatypes
    - <http://www.openehr.org/wiki/display/stds/openEHR+to+ISO+13606-1%2C+ISO+21090+mapping>
- Strategy for archetype development and terminology binding





## Archetypes and Tools

- Because there aren't tools that support 13606, Sweden has been working towards openEHR's reference models at the archetype definitions.
- In work with archetypes Archetype Editor from Ocean Informatics is used.
- For archetype library we use the Ocean Informatics Clinical Knowledge Manager (CKM), <http://slocean.karolinska.se/ckm/>
- We have built 17 demographic archetypes according to VTIM's demographic classes.
- Those, and 20 clinical reference archetypes are administrated in the Swedish CKM.

## Demographic archetypes

The screenshot displays the 'cean Informatics Clinical Knowledge Manager' interface. The left sidebar shows a tree view of 'All archetypes' under 'EHR Archetypes', with 'Demographic Model Archetypes' expanded to show 'Address', 'Contact', 'Party', and 'Role'. The main content area shows the 'patientens kontaktuppgifter (v1)' archetype, which is a table listing various demographic data points.

Header	Data		
<b>A</b>	<b>telekom och adress</b> Slot (Address) Occurrences: 0..* (optional, repeating)	Telekomadresser som e-post och telefon samt adress till patienten.	<b>Include:</b> OpenEHR-DEMOGRAPHIC-ADDRESS.telecom_vtim2.v1 OpenEHR-DEMOGRAPHIC-ADDRESS.postal_address_vtim2.v1 <input type="button" value="Included"/>
<b>S</b>	<b>folkbokförings uppgifter</b> List Occurrences: 0..1 (optional) Cardinality: 0..5 (optional, unordered)	Folkbokförings uppgifter om adressen där patienten är folkbokförd.	
<b>T</b>	<b>fastighetsbeteckning</b> Text Occurrences: 0..1 (optional)	Fastighetsbeteckning för den fastighet som patienten är folkbokförd i.	Free or coded text
<b>T</b>	<b>kommun</b> Text Occurrences: 0..1 (optional)	Kommun som patienten är folkbokförd i. Kommunkod version 3.0 2006-12-21.	Free or coded text
<b>T</b>	<b>församling</b> Text Occurrences: 0..1 (optional)	Församling som patienten är folkbokförd i. Församlingskod version 3.1 2008-01-15.	Free or coded text
<b>T</b>	<b>län</b> Text Occurrences: 0..1 (optional)	Län som patienten är folkbokförd i. Länskod version 3.1 2009-04-28.	Free or coded text
<b>T</b>	<b>vägbeskrivning</b> Text Occurrences: 0..1 (optional)	Vägbeskrivning hem till patienten till stöd för hemsjukvård och ambulans.	Free or coded text

At the bottom of the interface, there is a status bar with a warning icon and the text 'Fel på sidan.' and a browser status bar showing 'Internet' and '100%' zoom.

## Conclusion

- Common base for openEHR and 13606
- TOOL´s –from generic model, applied information model, Archetypes, Templates, to XML-13606-schemas
- Datatypes
- "Official" XML-schema
- IS EN13606 = ISO13606??
- A "small" 13606 for "simple unstructured information"
- Time for planing an Revision???

