

Yerevan, October 10th

XIII UNL School

Day #4



Day #4

- ~~Nlization (UGO)~~
- ~~UNLization (CORNELIA)~~
- ~~Grammar: Morphology~~
- Dictionary

Composition

Composition

LEMMA

- Citation form
 - English
 - Verbs = INF (kill)
 - Noun = SNG (&MCL) (book)
 - French
 - Verbs = INF (tuer)
 - Noun = SNG (&MCL) (livre, ami)
 - Adjectives = MCL&SNG (nouveau)
 - Latin
 - Verbs = 1PS&PRS&IND (amo)
 - Noun = NOM&SNG (rosa)
 - Adjectives = NOM&SNG&MCL (bonus)

BASE FORM

- Inflectional root
 - = LEMMA
 - simple words
 - multiword expressions:
 - continuous AND
 - inflections = prefixation or suffixation
 - ≠ LEMMA
 - multiword expressions
 - discontinuous OR
 - inflections = infixation

Examples (I)

- master plan
 - M2: SNG=0>""; PLR:=0>"s";
 - master plan; master plans
 - BASE FORM = LEMMA
- part of speech
 - M2: SNG=0>""; PLR:=0>"s";
 - part of speech; part of spech
 - BASE FORM ≠ LEMMA
 - LEMMA = part of speech
 - BASE FORM = part (to be associated to M2)
 - COMPOSITION RULE = NA("of speech",PP);

Examples (II)

- non-governmental organization
 - M₂: SNG= \emptyset ; PLR= \emptyset "s";
 - non-governmental organization, non-governmental organizations
 - BASE FORM = LEMMA
- take into account
 - M₅: INF= \emptyset ; PAS= $\{3\}$ "ook"; PTP= \emptyset "n":
 - take into account, take into account, take into account
 - BASE FORM \neq LEMMA
 - LEMMA = take into account
 - BASE FORM = take (to be associated to M₂)
 - COMPOSITION RULE = VA("into account",PP);

Examples (III)

- make sense
 - M125: INF:=0>""; PAS:=2>"de"; PTP:=2>"de":
 - make sense, make sende, make sende
 - BASE FORM \neq LEMMA
 - LEMMA = make sense
 - BASE FORM = make (to be associated to M125)
 - COMPOSITION RULE = VC([sense],N,Mo);
- coffee shop
 - M2: SNG=0>""; PLR:=0>"s";
 - coffee shop, coffee shop
 - BASE FORM = LEMMA

Examples (IV)

- lingua franca
 - M₂: NOM&SNG:=o>"";NOM&PLR:=o>"e";...
 - lingua franca, lingua francae, ...
 - BASE FORM ≠ LEMMA
 - LEMMA = lingua franca
 - BASE FORM = lingua (to be associated to M₂)
 - COMPOSITION RULE = NA([franca],J,M₁₂₃);
- ankommen
 - M₃: 3PS&PRS&IND = "en">"t";
 - ankommt
 - BASE FORM ≠ LEMMA
 - LEMMA = ankommen
 - BASE FORM = kommen (to be associated to M₃)
 - COMPOSITION RULE = VH([an],F);

Universal Words

Universal Words

- nodes in the UNL graph
- temporary (not to be included in the UNL Dictionary)
 - 3.14159
 - www.undlfoundation.org
 - H₂O
- permanent (to be included in the UNL Dictionary)

TYPE	GRANULARITY	UNL (simplified)	ENGLISH
SIMPLE	NODE	big	big
COMPOUND	NODE + ATTRIBUTE	big.@more	bigger
COMPLEX	HYPER-NODE	obj(affix,stamp)	to stamp

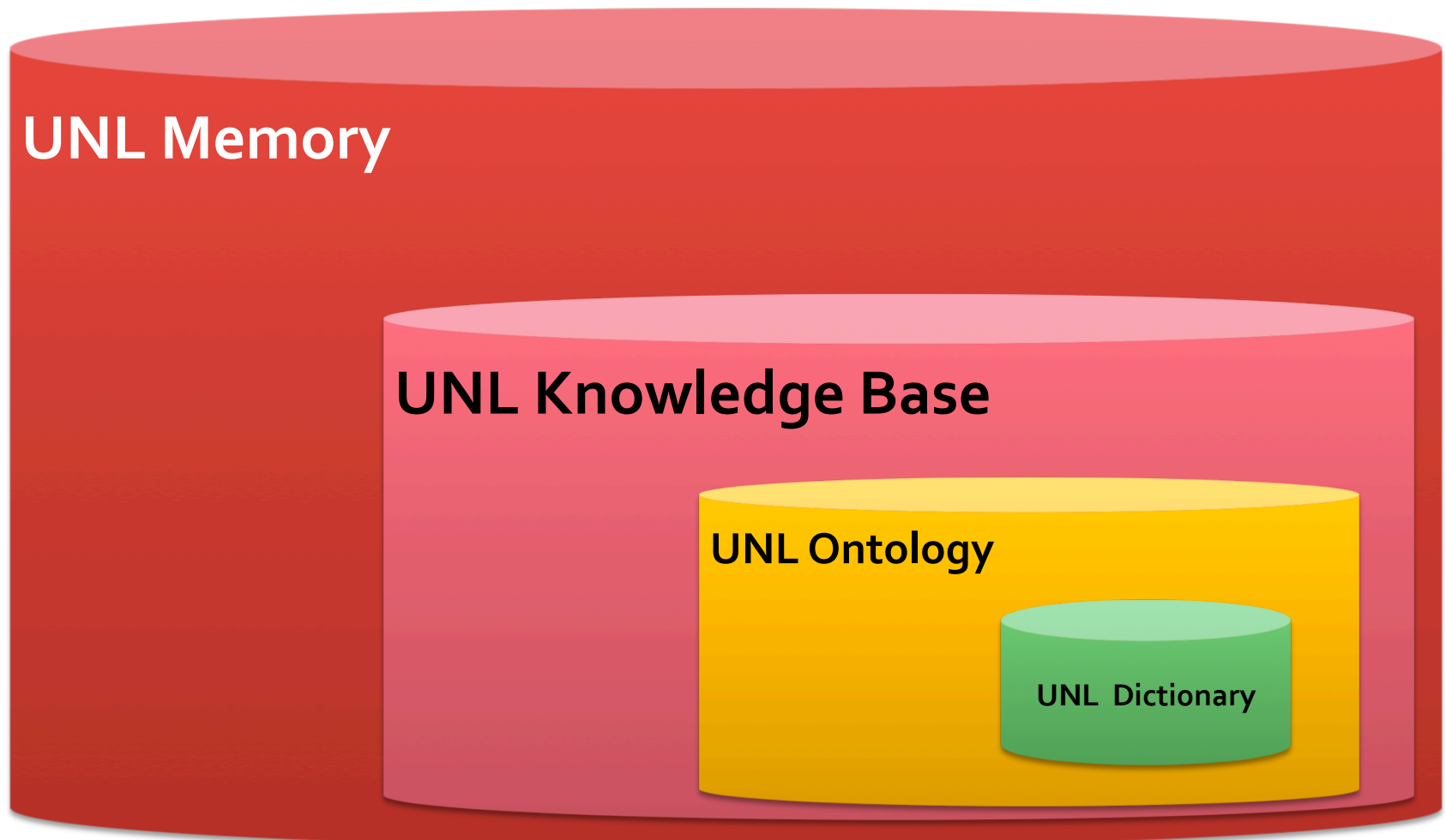
Semantic Accessibility

UCI (Uniform Concept Identifier)

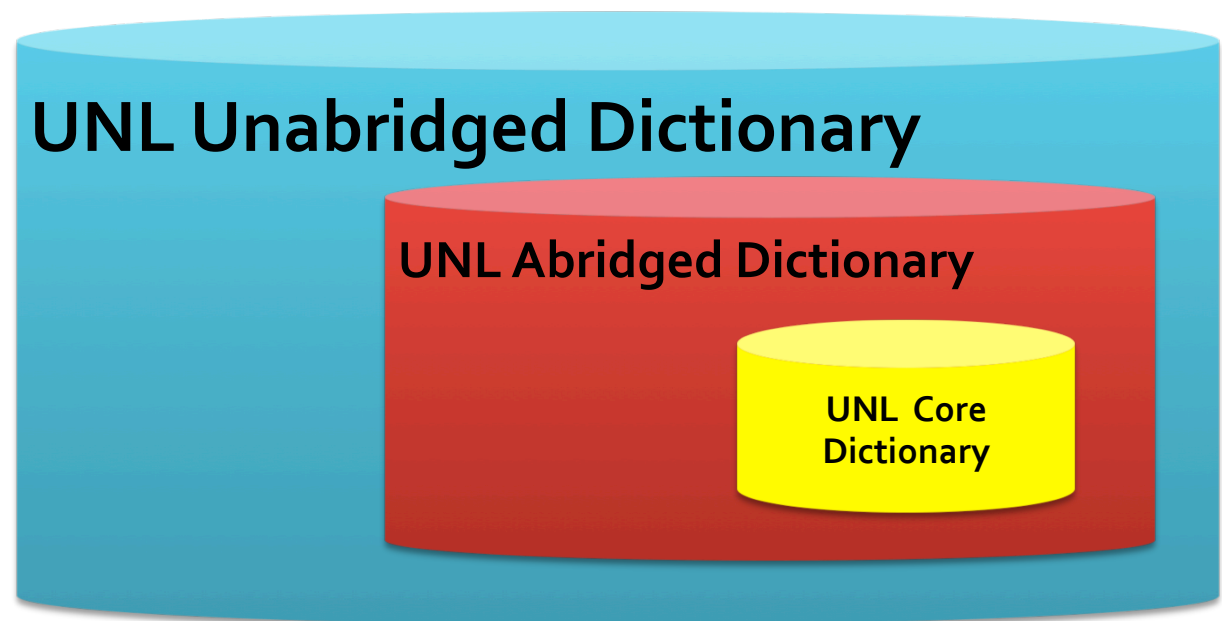
- ❑ UCL (Uniform Concept Locator)
 - ❑ ucl://<AUTHORITY>/<ID>
 - ❑ ucl://unlkb.unlweb.net/104379964
- ❑ UCN (Uniform Concept Name)
 - ❑ ucn:<LID>:<NSS>
 - ❑ ucn:eng:table(icl>furniture)
 - ❑ ucn:fra:table(icl>mobilier)
 - ❑ ucn:esp:mesa(icl>mobiliario)
 - ❑ ucn:deu:Tisch(icl>Möbel)
 - ❑ ucn:rus:стол(icl>мебель)

Lexical Resources

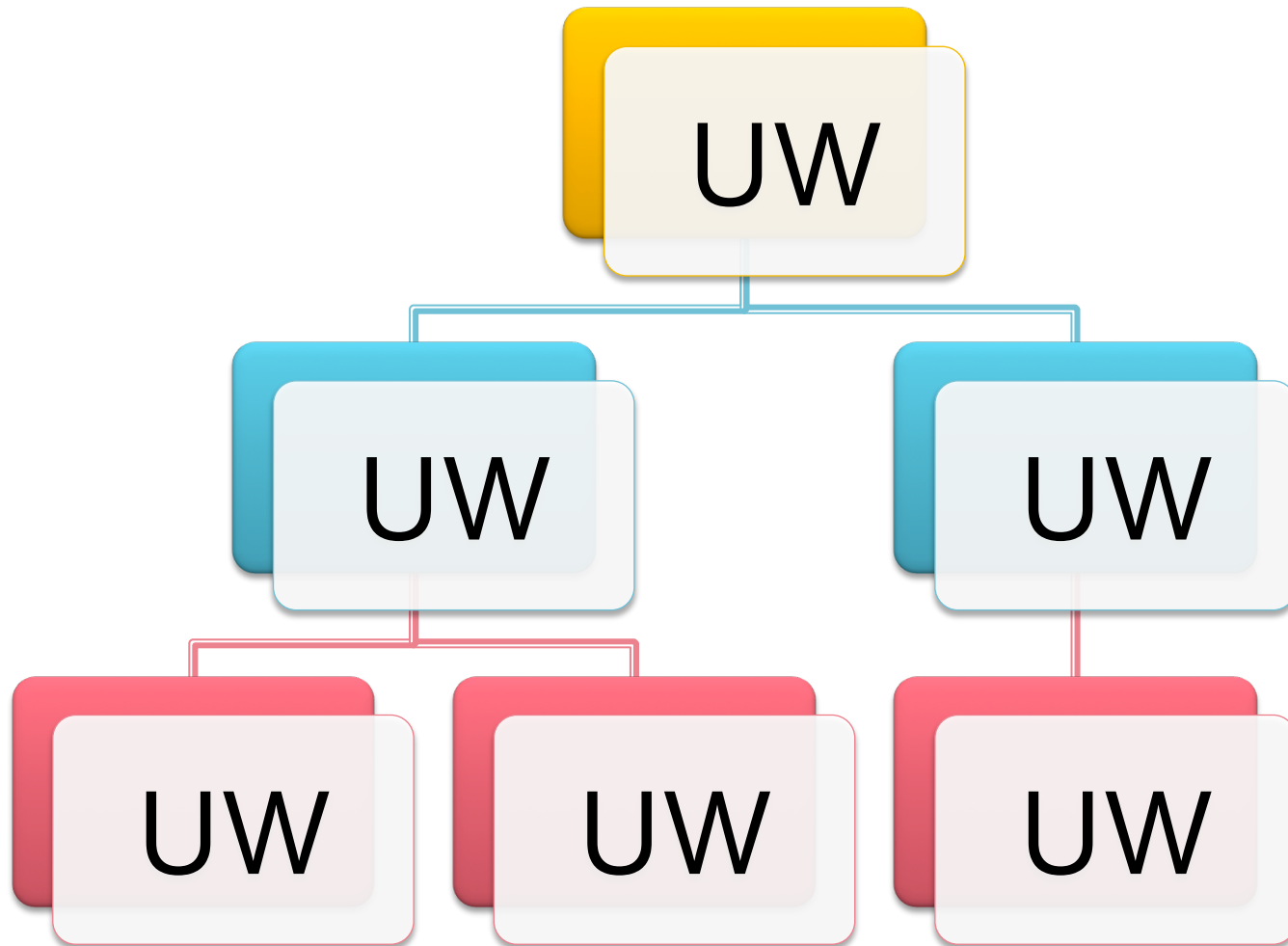
UNL Lexical Resources



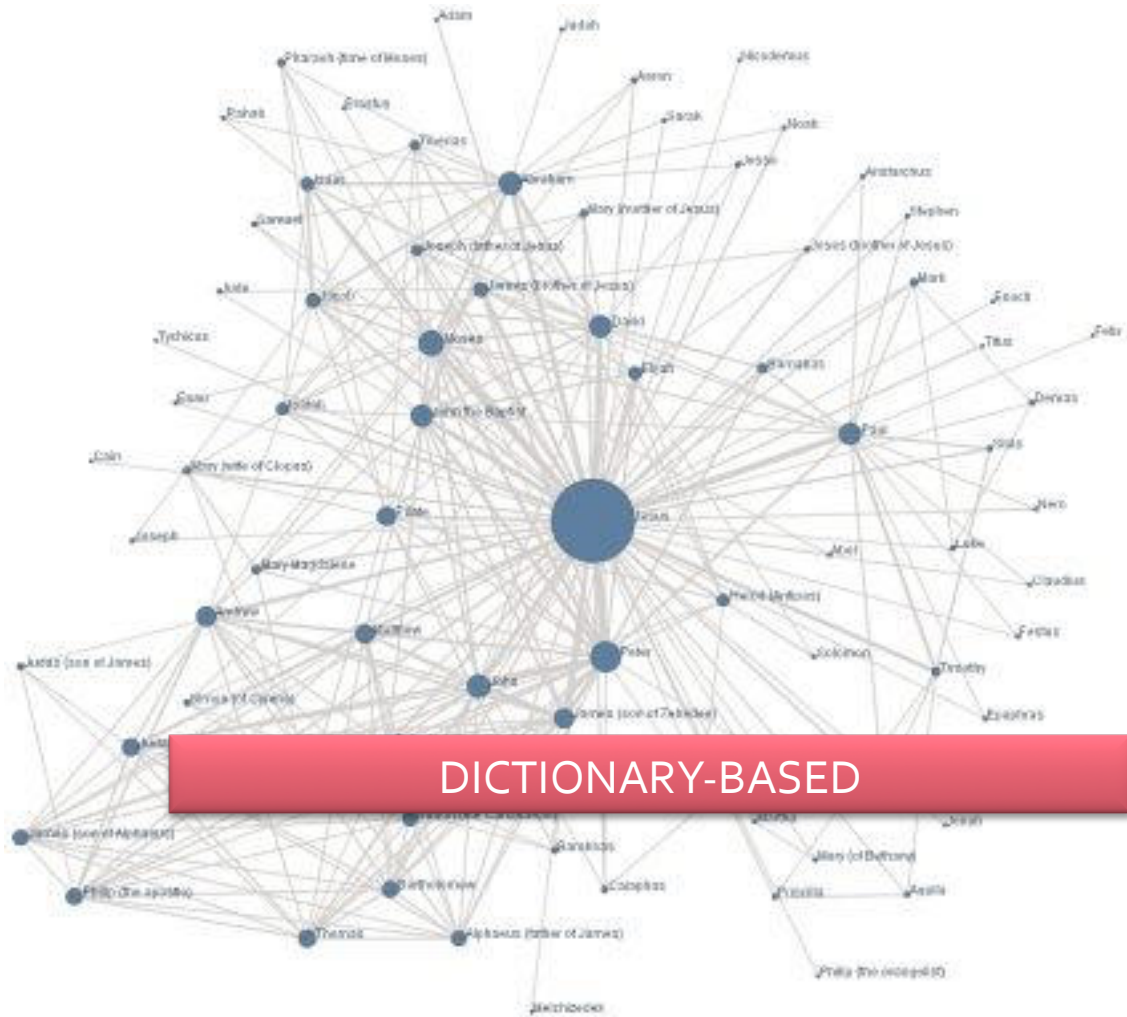
UNL Dictionary



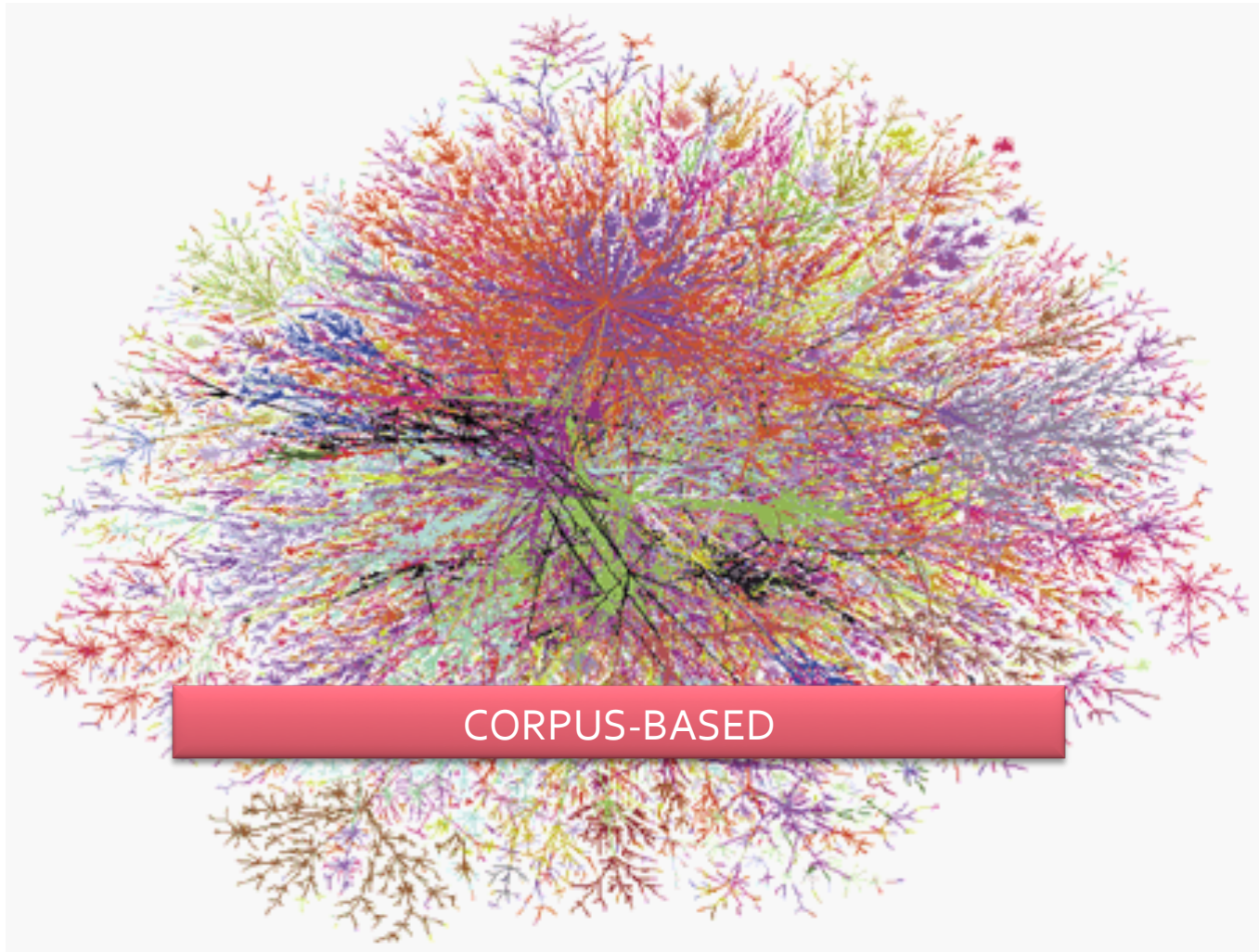
UNL Ontology



UNL Knowledge Base



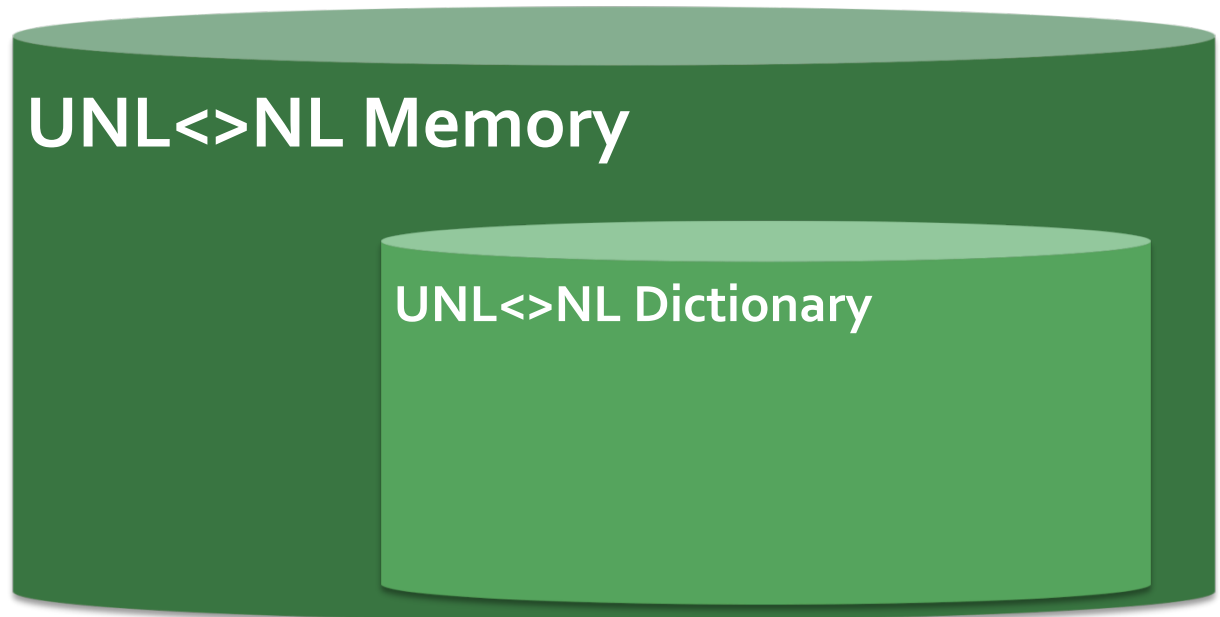
UNL Memory



NL Lexical Resources

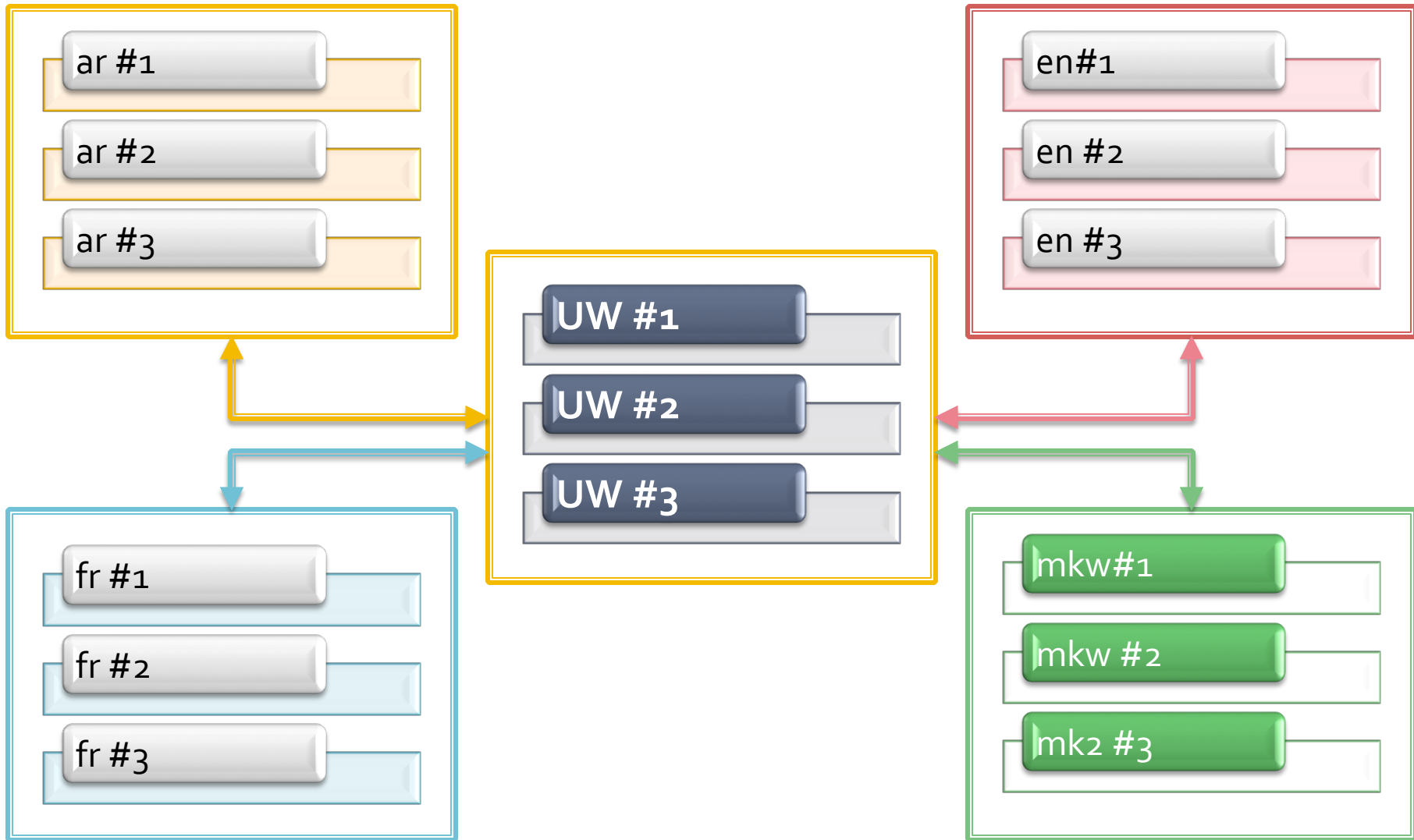


UNL<>NL Lexical Resources



UNL<>NL Dictionaries

UNL<->NL Dictionaries



UNL <> NL Dictionaries

- NL-UNL Dictionary (Analysis)

- Enumerative (word forms)

- [table] {2883} "table" (POS=NOU,NUM=SNG) <eng,0,0>;
 - [tables] {2883} "table" (POS=NOU,NUM=PLR) <eng,0,0>;

- [foot] {2883} "foot" (POS=NOU,NUM=SNG) <eng,0,0>;
 - [feet] {2883} "foot" (POS=NOU,NUM=PLR) <eng,0,0>;

- UNL-NL Dictionary (Generation)

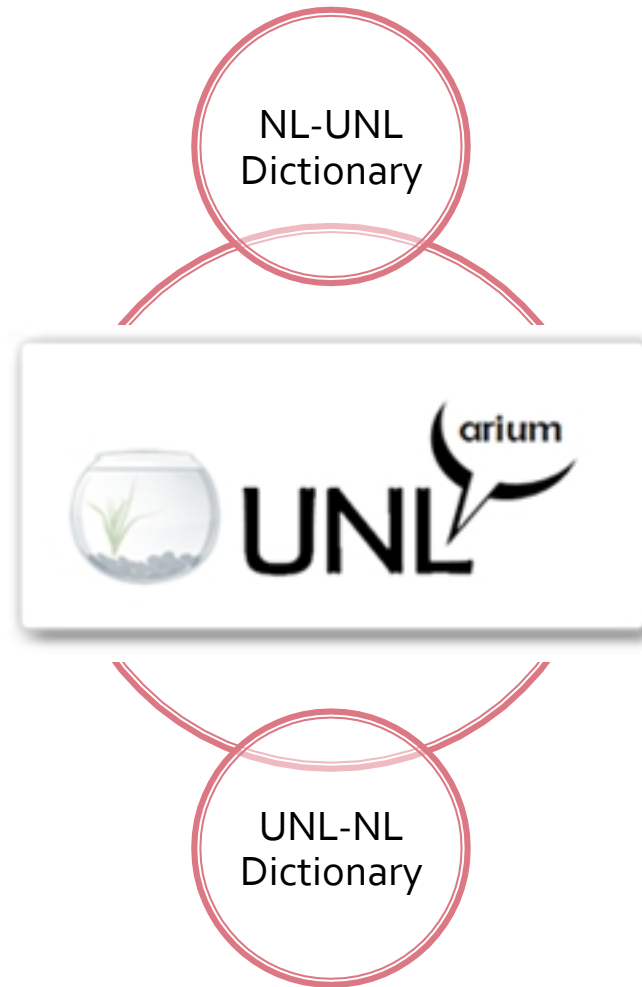
- Generative (base forms)

- [table] {2883} "table" (POS=NOU,NUM=SNG,PAR=M2) <eng,0,0>;
 - [foot] {2883} "100284665" (POS=NOU,PAR=M1,FLX(PLR:="feet";)) <eng,0,0>;

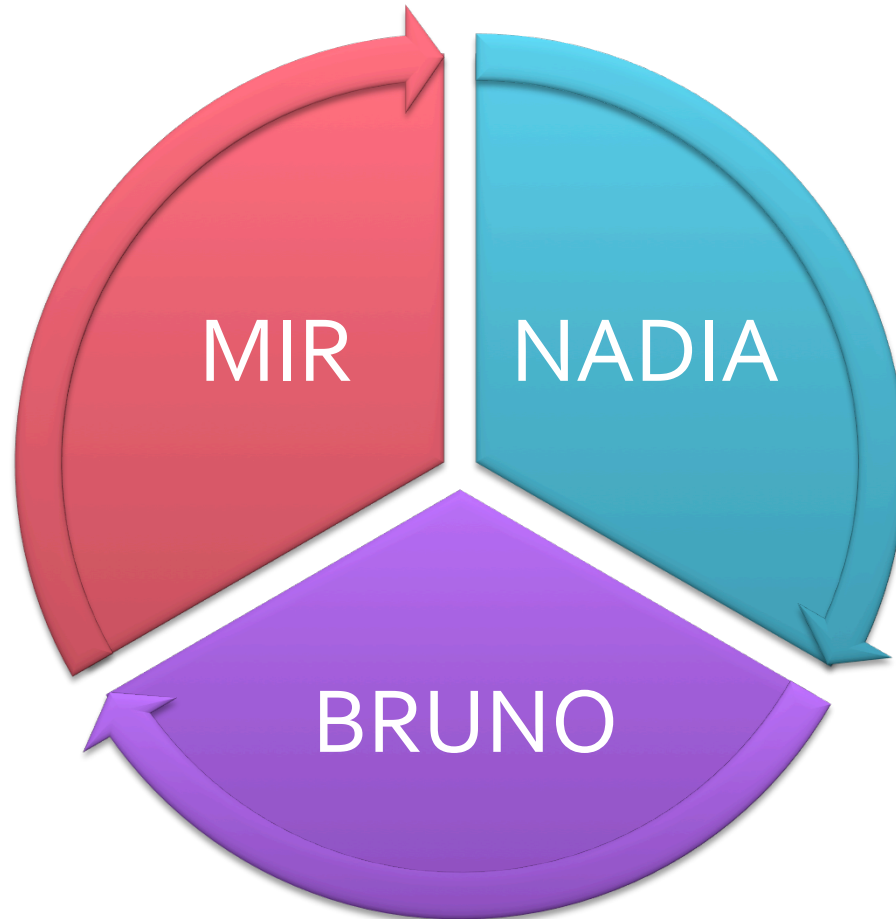


Building dictionaries

Building dictionaries



Dictionary Projects



Dictionary Projets (II)

MIR

- UNL>NL
- CLEA²⁵⁰

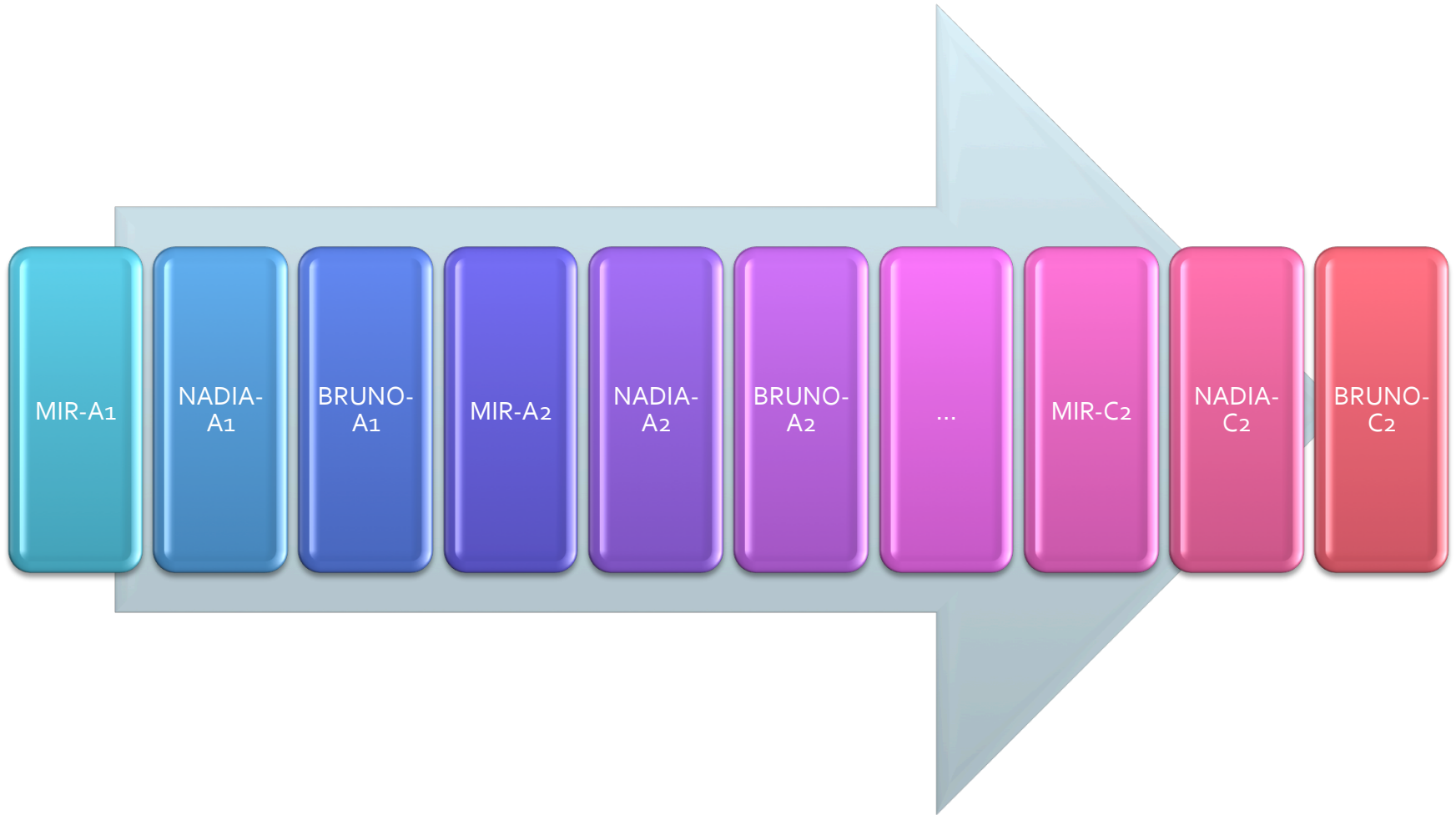
NADIA

- NL
- CLEA⁷⁵⁰
- Paradigms
- Frames

BRUNO

- NL>UNL
- CLEA⁷⁵⁰
- Paradigms
- Frames

Project Cycle



Activity #5

Activity #5

1. Create an assignment, in the UNLsandbox, for the project MIR-A₀
2. Address the corresponding entries
3. After finishing, inform me in order to generate the project NADIA-A₀
4. Once the project is there, create an assignment, in the UNLsandbox, for the project NADIA-A₀
5. Address the corresponding entries, including the corresponding paradigms and frames, whenever needed.
6. Create an assignment, in the UNLsandbox, for the project BRUNO-A₁
7. Address the corresponding entries, including the corresponding paradigms and frames, whenever needed.