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Improved COVADIS standards

Toward INSPIRE compliance of existing national data

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Cerema Territoires et ville

6th to 8th September, INSPIRE Conference 2017 - Strasbourg

Outline

Actual national COVADIS standards

- Understanding the french administrative division & COVADIS standards potential clients
- The COVADIS role & productions

Better INSPIRE : the compliance issue

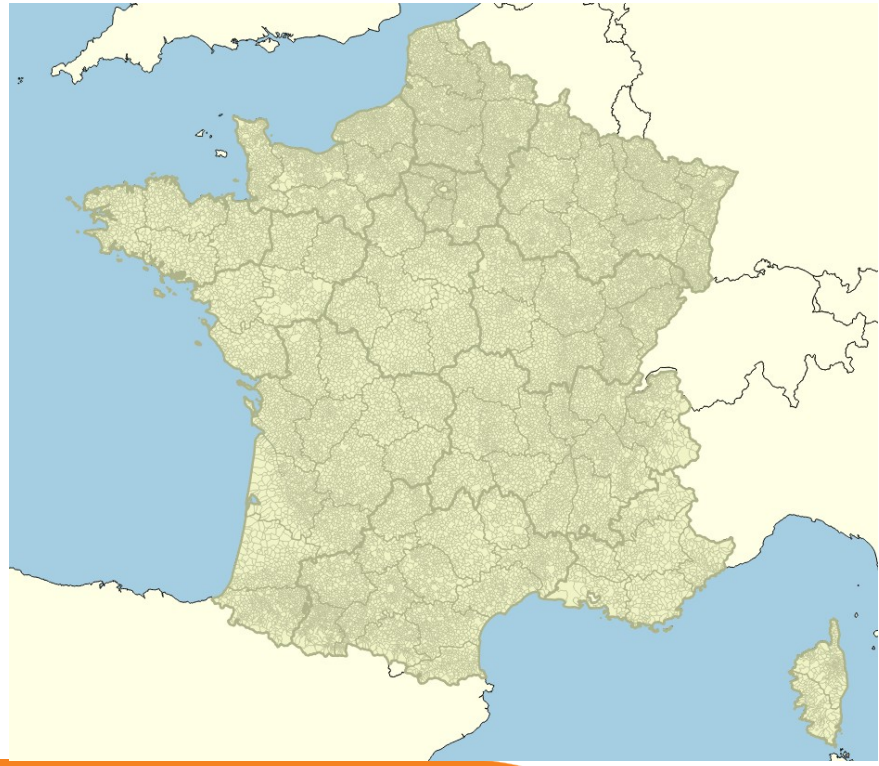
- Use case : Wind energy INSPIRE extension
- Alignment of existing SDI data

French administrative division

Metropolitan regions

- Communes & Intercommunal structures
- Departments
- (local authorities)
- Regions
- (territorial collectivities)

Overseas regions (not shown)



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French administrative division

Metropolitan regions

- Communes & Intercommunal structures
- Departments
- (local authorities)
- Regions
- (territorial collectivities)

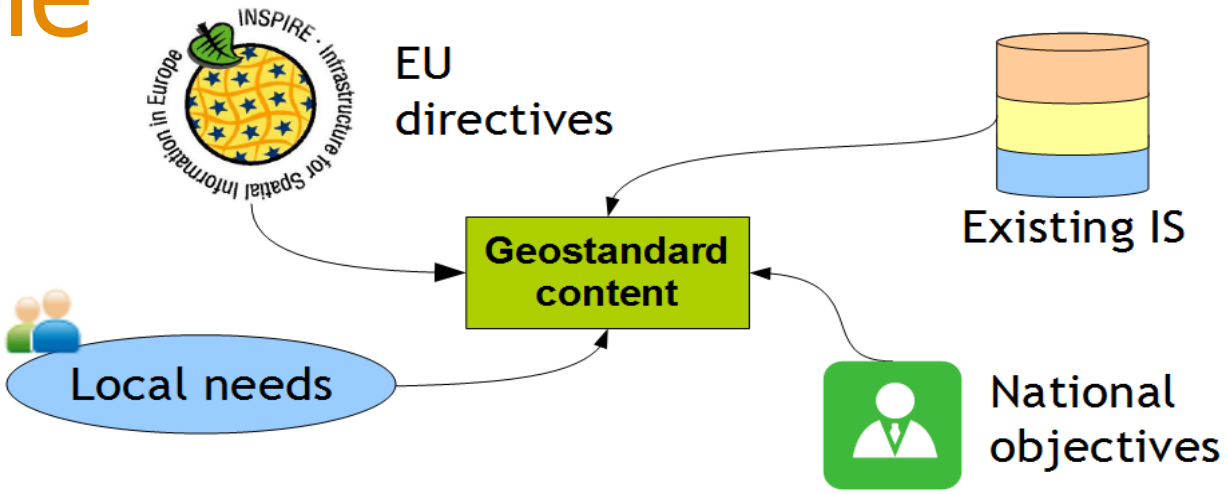
Overseas regions

}

Our national standards (COVADIS) concern mainly the state **deconcentrated services** at departement/region level

COVADIS Role

Consensus



Pragmatism

an operational (ready to use) data structure

Extensibility

Geostandard = kernel that can be enriched

Compatibility

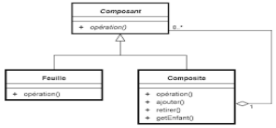
Data models **to prepare** INSPIRE compliance

Geostandard content

Part A
WHY is it relevant to my needs ?

* How was it developed ?

Part B
WHAT data definition ?



* Conceptual Model
* Catalog of Data

Part C
HOW TO exchange or store my data ?

* Logical / Physical Models
* Dictionary of data
* Metadata guidelines

INSPIRE compatible

SDI Implementation

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Better INSPIRE ?

National standards should be INSPIRE compliant, and not only compatible, but

- french traduction of concepts !
- handle existing standards and data !
- keep rich models !

Solution : introduce national INSPIRE extensions, and align existing data

Geostandards improvement

Simple use case : Wind Energy

- III.8 PF features :
  - Wind Turbines
  - Wind Farms
- III.11 AM features :
  - Wind Regional Scheme

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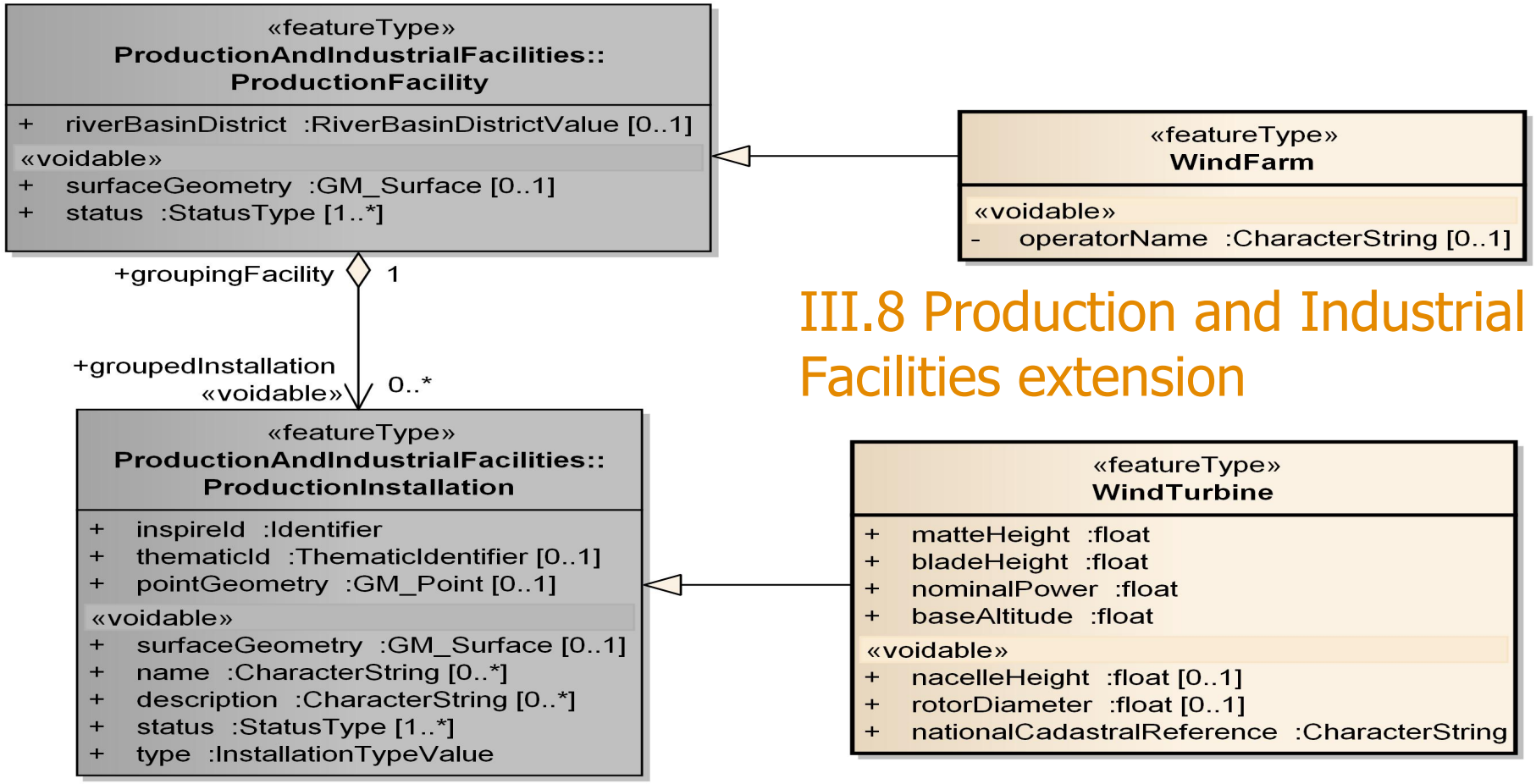
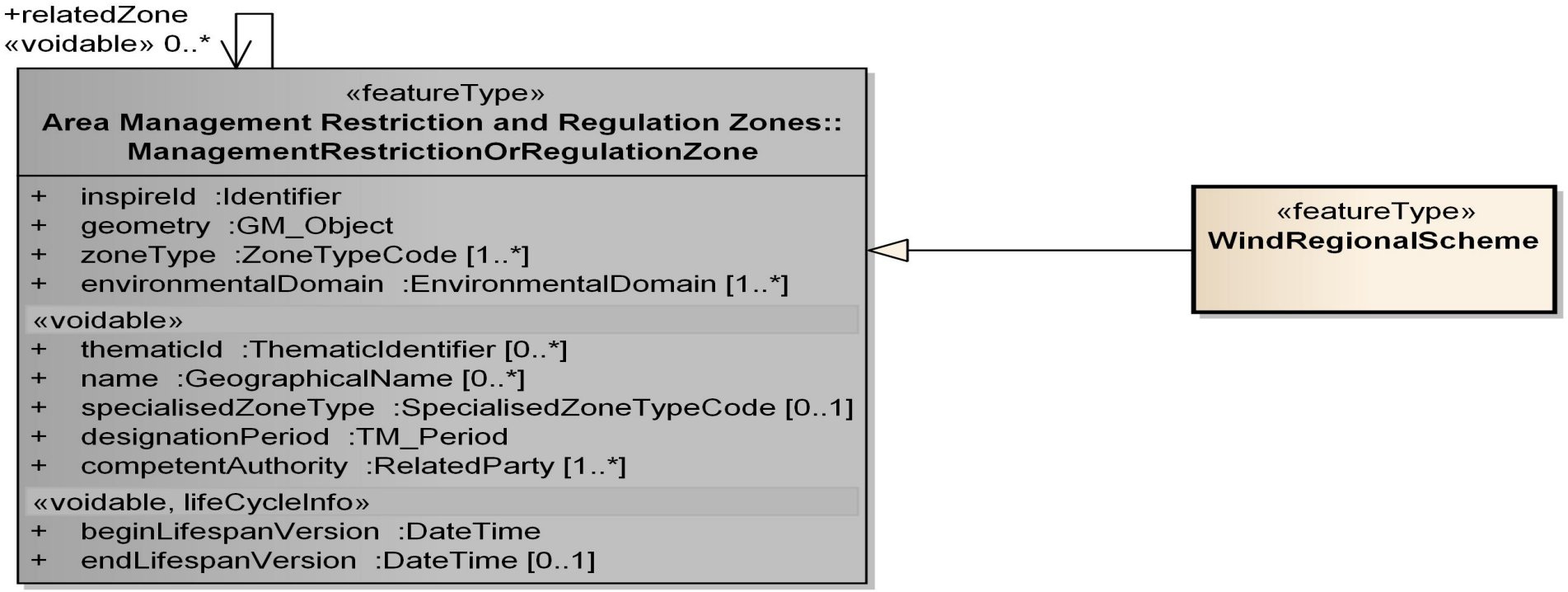
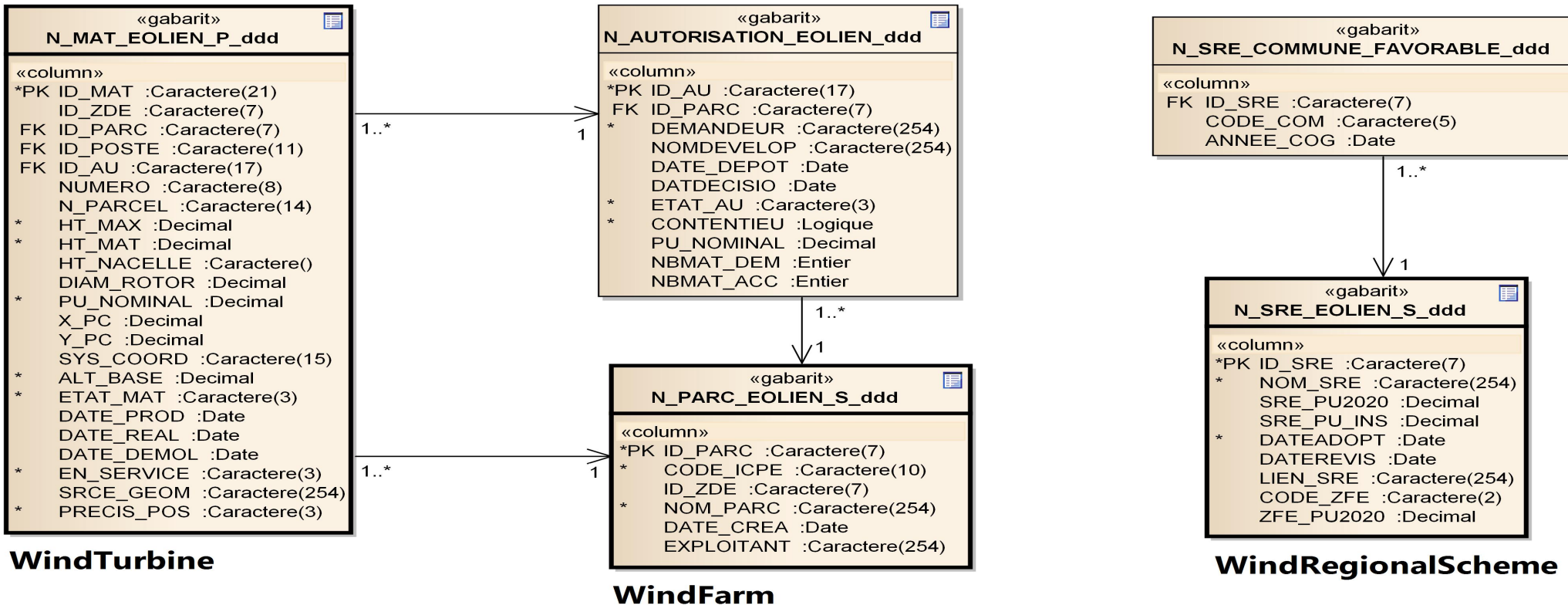


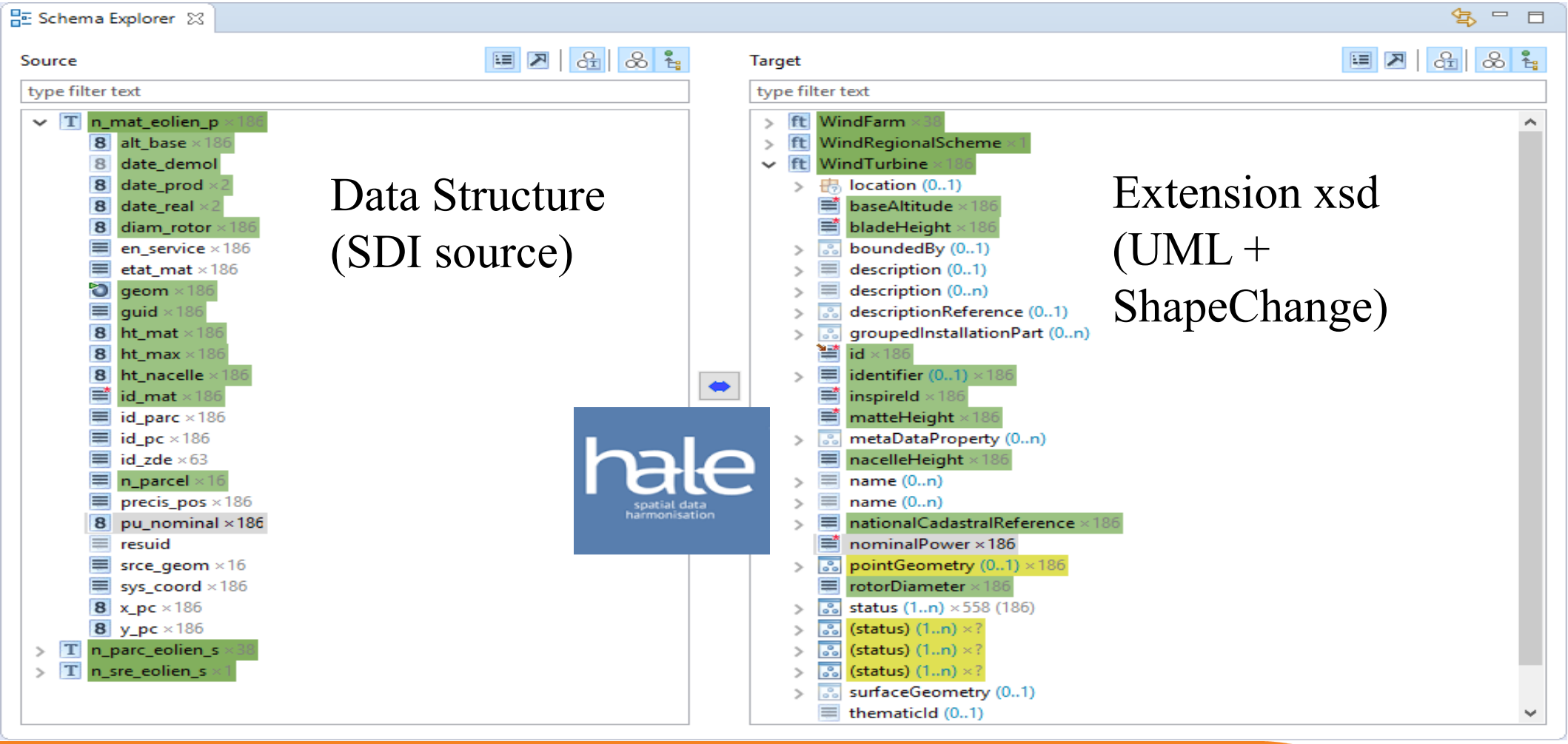
III.8 Production and Industrial Facilities extension

III.11 Area Management/Restriction/Regulation. Zones and Reporting Units Extension



Map data / extensions




Schema Explorer
Source
type filter text
n_mat_eolien_p ×186
alt_base ×186
date_demol
date_prod ×2
date_real ×2
diam_rotor ×186
en_service ×186
etat_mat ×186
geom ×186
guid ×186
ht_mat ×186
ht_max ×186
ht_nacelle ×186
id_mat ×186
id_parc ×186
id_pc ×186
id_zde ×63
n_parcel ×16
precis_pos ×186
pu_nominal ×186
resuid
srce_geom ×16
sys_coord ×186
x_pc ×186
y_pc ×186
n_parc_eolien_s ×38
n_sre_eolien_s ×1
Data Structure (SDI source)
hale
spatial data harmonisation
Target
type filter text
WindFarm ×38
WindRegionalScheme ×1
WindTurbine ×186
location (0..1)
baseAltitude ×186
bladeHeight ×186
boundedBy (0..1)
description (0..1)
description (0..n)
descriptionReference (0..1)
groupedInstallationPart (0..n)
id ×186
identifier (0..1) ×186
inspireId ×186
matteHeight ×186
metaDataProperty (0..n)
nacelleHeight ×186
name (0..n)
name (0..n)
nationalCadastralReference ×186
nominalPower ×186
pointGeometry (0..1) ×186
rotorDiameter ×186
status (1..n) ×558 (186)
(status) (1..n) ×?
(status) (1..n) ×?
(status) (1..n) ×?
surfaceGeometry (0..1)
thematicId (0..1)
Extension xsd (UML + ShapeChange)

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Transform Rules

Schéma d'extension INSPIRE		Règle	Gabarit COVADIS	
Type	Attribut / rôle d'association / contrainte		Table	Champ / Relation
<WindTurbine>		**retype**	**N_MAT_EOLIEN_P**	
<WindTurbine>	baseAltitude	rename	N_MAT_EOLIEN_P	ALT_BASE
<WindTurbine>	bladeHeight	rename	N_MAT_EOLIEN_P	HT_MAX
<WindTurbine>	id	formatted string (guid)	-	guid
<WindTurbine>	identifier	rename	N_MAT_EOLIEN_P	ID_MAT
<WindTurbine>	inspireId	formatted string (guid)	-	guid
<WindTurbine>	matteHeight	rename	N_MAT_EOLIEN_P	HT_MAT
<WindTurbine>	nacelleHeight	rename	N_MAT_EOLIEN_P	HT_NACELLE
<WindTurbine>	nationalCadastral Reference	rename	N_MAT_EOLIEN_P	N_PARCEL
<WindTurbine>	nominalPower	rename	N_MAT_EOLIEN_P	PU_NOMINAL
<WindTurbine>	pointGeometry .Point	reproject geometry	N_MAT_EOLIEN_P	geom
<WindTurbine>	rotorDiameter	rename	N_MAT_EOLIEN_P	DIAM_ROTOR
<WindTurbine>	(status).StatusType .validFrom	rename	N_MAT_EOLIEN_P	DATE_PROD
<WindTurbine>	(status).StatusType .validTo	rename	N_MAT_EOLIEN_P	DATE_REAL, DATE_DEMOL (si non nulle)

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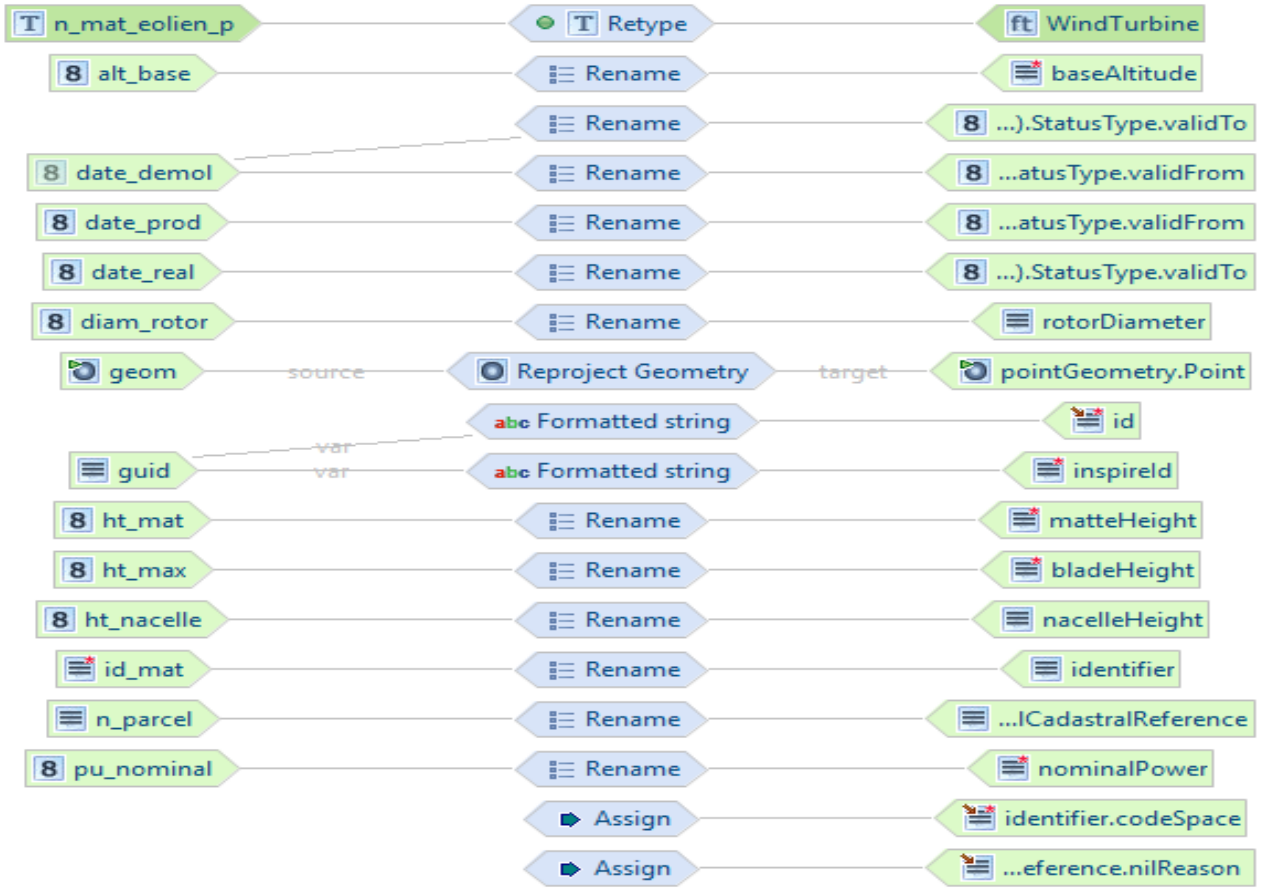

hale
spatial data harmonisation

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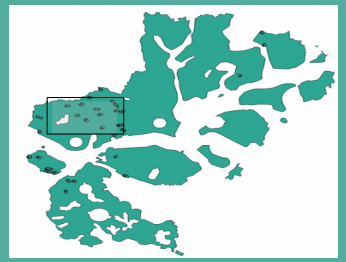

INSPIRE-EolienTerrestre_v1 WindFarm :: Total entités: 11, filtrées: 11, sélectionnées: 0, l...

	gml_id	description	identifier	name	statusType	operatorName
1	id_428000ec-f92...	Parc éolien	44046	LANDES DE CON...	Création	Vinci-Erelia
2	id_36b3161e-2ef...	Parc éolien	44041	VALLEE DU DON	Création	Parc éolien de la ...
3	id_e630d7a4-66...	Parc éolien	44029	LES HERONNIERES	Création	Prokon Energies
4	id_8ccb7121-010...	Parc éolien	44036	Les quatre Seign...	Création	Ferme Eolienne d...
5	id_fb39dddd-db3...	Parc éolien	44010	LES BOUVRAIS	Création	Energie Eolienne ...
6	id_41d6d280-2fe...	Parc éolien	44026	RENARDIERE	Création	Parc de La Renar...
7	id_89ba3381-82...	Parc éolien	44012	ST PATERN	Création	Energie Team
8	id_5a20b77c-808...	Parc éolien	44025	BEAUMONT	Création	Parc de Beaumont
9	id_c4bea4d9-223...	Parc éolien	44042	PETIT-AUVERNE	Création	Ferme Eolienne C...
10	id_6ba02656-27...	Parc éolien	44011	PORTES DE BRET...	Création	Energie Team
11	id_c4a5c58b-c6b...	Parc éolien	44047	ERBRAY 2	Création	Ferme Eolienne d...

Ne montrer que les entités visibles sur la carte

INSPIRE-EolienTerrestre_v1 WindTurbine
INSPIRE-EolienTerrestre_v1 WindFarm
INSPIRE-EolienTerrestre_v1 WindRegionalScheme

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Conclusion

Extension of schemes can apply to existing or new national standards

Compliant GML no more a producer issue !

Ideal integration with national SDI

Theoretical compliance still to be validated (INSPIRE existing tools)...

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Thank you for your attention

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Standardization of geographic information

www.cerema.fr