

**INSPIRE "Facilities" themes:
low complexity, high impact.**

JIIDE, 2013 (Toledo)

**Production and Industrial Facilities TWG
(DS Annex.III.PF.8 DS).**

"INSPIRE" Facilities Themes in Context



Legislative Framework

- **European Interoperability Strategy (EIS); European Interoperability Framework (EIF) for European public services -> Digital Agenda EU's strategy . (ISA Programme)**
- **DIRECTIVE 2003/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 November 2003 on the re-use of public sector information (PSI Directive)**
- **Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)**

Domain Specific

- **DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions (integrated pollution prevention and control).**
- **Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment 85/337/EEC**
- **Others ... [Facilities Legislation Analysis](#)**

Facilities Legislation Analysis on INPIRE DS

Directive	Geo	Potential Facility	Word	Description
Council Directive 92/102/EEC	GeoClass	Facility	holding	any establishment, construction or, in the case of an open-air farm, any place in which animals are held, kept or handled;
Directive [96/82/EC]	GeoClass	Facility	establishment	the whole area under the control of an operator where dangerous substances are present in one or more installations , including common or related infrastructures or activities ;
Directive 2006/21/EC	GeoClass	Facility	extractive industries	all establishments and undertakings engaged in surface or underground extraction of mineral resources for commercial purposes, including extraction by drilling boreholes, or treatment of the extracted material;
DIRECTIVE 1999/31/EC	GeoClass	Facility	underground storage	a permanent waste storage facility in a deep geological cavity such as a salt or potassium mine;
				A waste disposal site for the deposit of the waste onto or into land (i.e. underground), including: - internal waste disposal sites (i.e. landfill where a producer of waste is carrying out its own waste disposal at the place of production), and - a permanent site (i.e. more than one year) which is used for temporary storage of waste, but excluding: - facilities where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere, and - storage of waste prior to recovery or treatment for a period less than three years as a general rule, or - storage of waste prior to disposal for a period less than one year;
DIRECTIVE 1999/31/EC	GeoClass	Facility	landfill	one or more installations on the same site that are operated by the same natural or legal person ;
REGULATION (EC) No 166/2006	GeoClass	Facility	facility	an agricultural or training establishment, a stable or, generally speaking, any premises or facilities in which equidae are habitually kept or bred, for whatever use;
(90/426/EEC)	GeoClass	Facility	holding	a facility — which may include an establishment — used for the rearing or keeping of breeding or productive poultry;
90/539/EEC	GeoClass	Facility	holding	
DIRECTIVE 1999/13/EC	GeoClass	Installation	installation	a stationary technical unit where one or more activities falling within the scope defined in Article 1 are carried out, and any other directly associated activities which have a technical connection
DIRECTIVE 1999/13/EC	GeoClass	Installation	existing installation	an installation in operation or, in accordance with legislation existing before the date on which this Directive is brought into effect, an installation which is authorised or registered or, in the view of the competent authority, the subject of a full request for authorisation , provided that the installation is an installation which falls within the lower threshold band of items 1, 3, 4, 5, 8, 10, 13, 16 or 17 of Annex IIA or for the other activities of Annex IIA which have a solvent consumption of less than 10
DIRECTIVE 1999/13/EC	GeoClass	Installation	small installation	a stationary technical unit where one or more activities listed in Annex I are carried out , and any other directly associated activities which have a technical connection with the activities carried out
REGULATION (EC) No 166/2006	GeoClass	Installation	installation	means a stationary technical unit within which one or more activities listed in Annex I or in Part 1 of Annex VII are carried out, and any other directly associated activities on the same site which
2010/75/UE	GeoClass	Installation	installation	means any technical apparatus in which fuels are oxidised in order to use the heat thus generated;
2010/75/UE	GeoClass	Installation	combustion plant	means any combustion plant which may be fired simultaneously or alternately by two or more
2010/75/UE	GeoClass	Installation	multi-fuel firing combustion	types of fuel;

Facilities in INPIRE DS

- Facility: abstract term that covers a wide range of physical infrastructures -> [Confusing / overlapped terminology and range of entities](#)
- Depending on emplacement, functionality, social and economical dimension, inputs and outputs - > [passive \(e.g. Flood Risk\) or active \(e.g. Emission\) entities](#).
- Many different Physical and legal approaches are in place to refer to them -> not linkable information -> [Fuzzy Geographical Boundaries](#) .
- “Activity Complex” (common entity across Facilities themes) aims to describe Facilities at a common level of abstraction across different thematic domains
-> [One location 1 - * Legal/Operational References](#)
- Facilities - Citizens are closely interlinked through diverse roles: users, managers, impact receivers, potential concern or affected parties, consumers, ...
-> [Enhance participation of stakeholders because of shared concerns](#).

Facilities in INSPIRE DS (II)

INSPIRE Data Specifications

(Scope and Definition,
Terms and descriptions,
UML Description,
Feature Catalogue,
Metadata,
Data Quality,
Use Cases, ...)

Facilities - Buildings Scope
Range

Other Thematic Scopes

Common
Facilities
Model

Facilities
Thematic
Scopes

EF,BU

Too Detailed, Out
of Scope



Complex Activity

Site
Holding, Facility,
Installation,
Plot,
Building

Installation Part

“Activity Complex” Common Model + “PF” DS Draft

TWG: Agricultural and Aquaculture Facilities (AF)

class Activity Complex Extended

Feature Types from Core profile

«featureType»
ActivityComplexCore::ActivityComplex

- + inspireId: Identifier
- + thematicId: Identifier [0..1]
- + name: GeographicalName [0..1]
- + geometry: GM_Object
- + function: Function [1..*]

«voidable»

- + validFrom: DateTime
- + validTo: DateTime [0..1]
- + «voidable» lifeCycleInfo
- + beginLifespanVersion: DateTime
- + endLifespanVersion: DateTime [0..1]

Identifiers
Geometry Activity
Name

«dataType»
Function

- + activity: ActivityValue [1..*]
- + input: InputOutputValue [0..*]
- + output: InputOutputValue [0..*]

«voidable»

- + description: PT_FreeText [0..1]

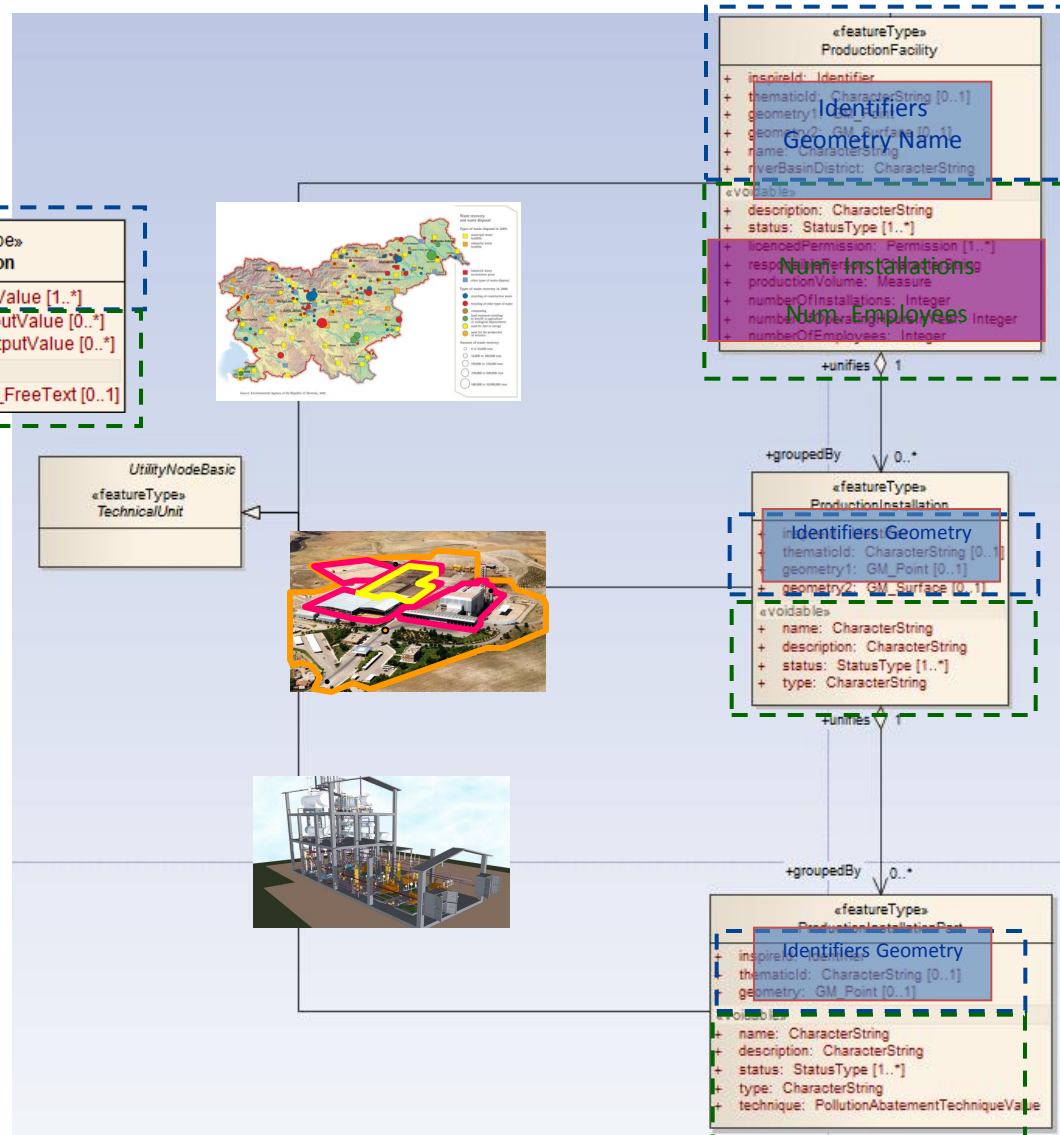
«featureType»
ActivityComplexExtended

«voidable»

- + description: PT_FreeText [0..1]
- + address: AddressRepresentation
- + contact: Contact [0..1]
- + relatedParty: RelatedParty [0..*]
- + physicalCapacity: Capacity [0..*]
- + permission: PermissionType [0..*]
- + status: ActivityComplexStatusValue

Permissions Status
Related Parties

TWG: Utilities and Governmental Services (US)



Benefits of Open Data for Facilities Administration (I)

- **Active involvement in public administration strategies** (Ex. environmental sustainability); -> Strategy
- **Empowering participation in consultation phases** (Ex. EIAs) -> Participation
- **Open knowledge base** through the systematization of spatial information, **facilitating access to information**, in accordance with the Aarhus Convention (*) -> Accessibility
- **Reduce the process costs** related to public procedures and services (e.g. environmental impact assessments, waste management); -> Optimization

(*) The [UNECE](#) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, signed on June 25, 1998 in the Danish city of [Aarhus](#).

Benefits of Open Data for Facilities Administration(II)

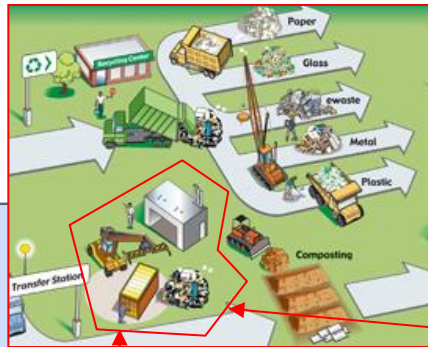
- **Governance processes** (e.g environmental governance) -> Transparency
- Mobilize and **organize stakeholders with less effort** (Ex. geo-blogs, forum) -> Accessibility
- **Cost saving** recognition by publishing once and reusing multiple times -> Reusability
- Integrate geographic information by lowering the barrier to **reuse location data**. -> Visual Capabilities
- **Cross-border issues** (lack of standards and harmonization -> incompatible data format/structure, accuracy/resolution) + **relevant inside-border information fragmentation** -> Harmonization and Interoperability

Recycling / Waste Treatment Facilities

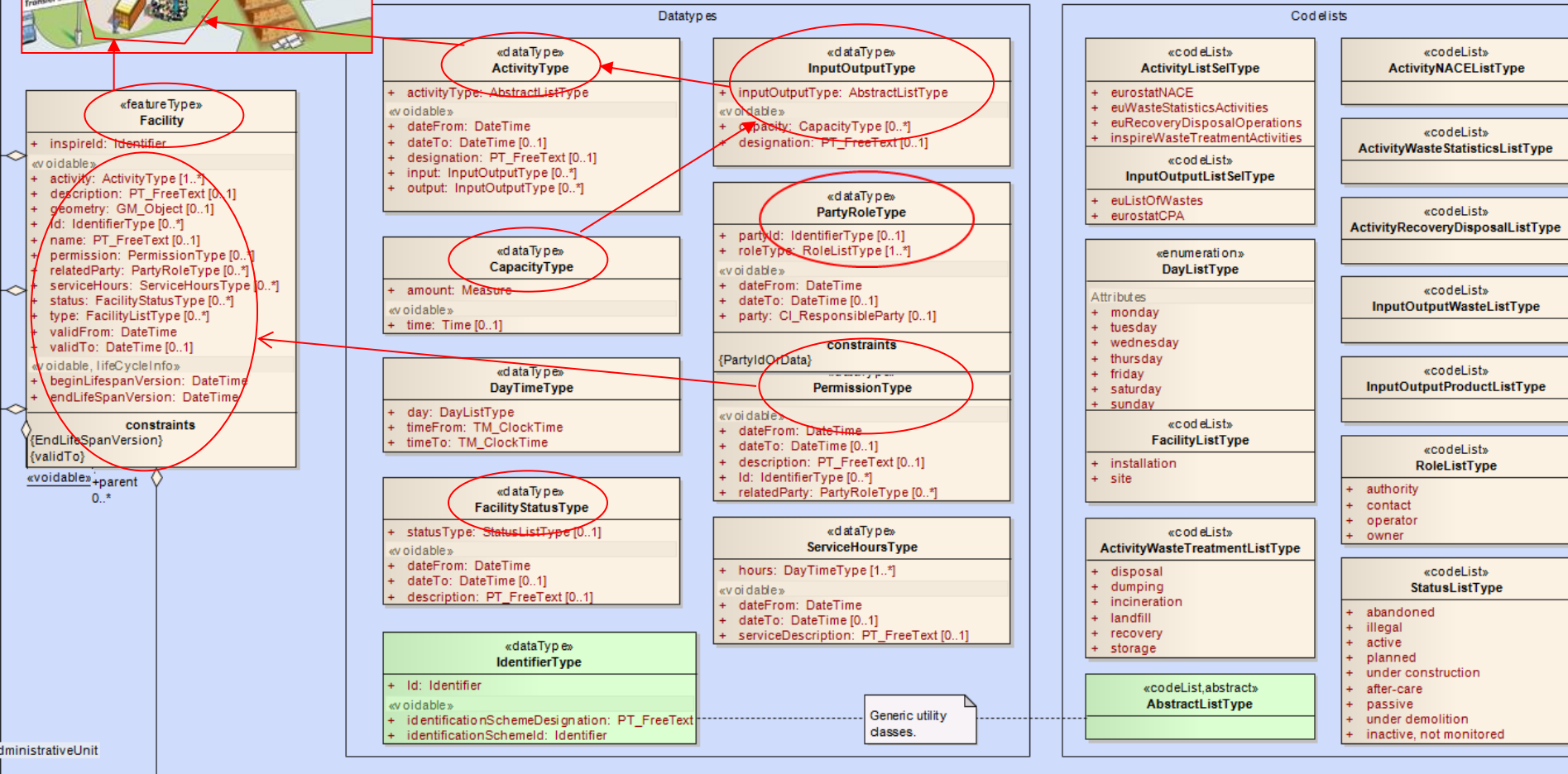
PF Industrial Facilities
US Waste Facilities

Environmental Impact Assessment; Reporting Obligations (PRTR); SEVESO; EMAS – ISO 14001
also ... public /commercial service,
Potential third parties impacts,
Planning & Strategies, Smart Solutions, Statistics

Stakeholders:
Citizens, Public Administration, Companies, ...

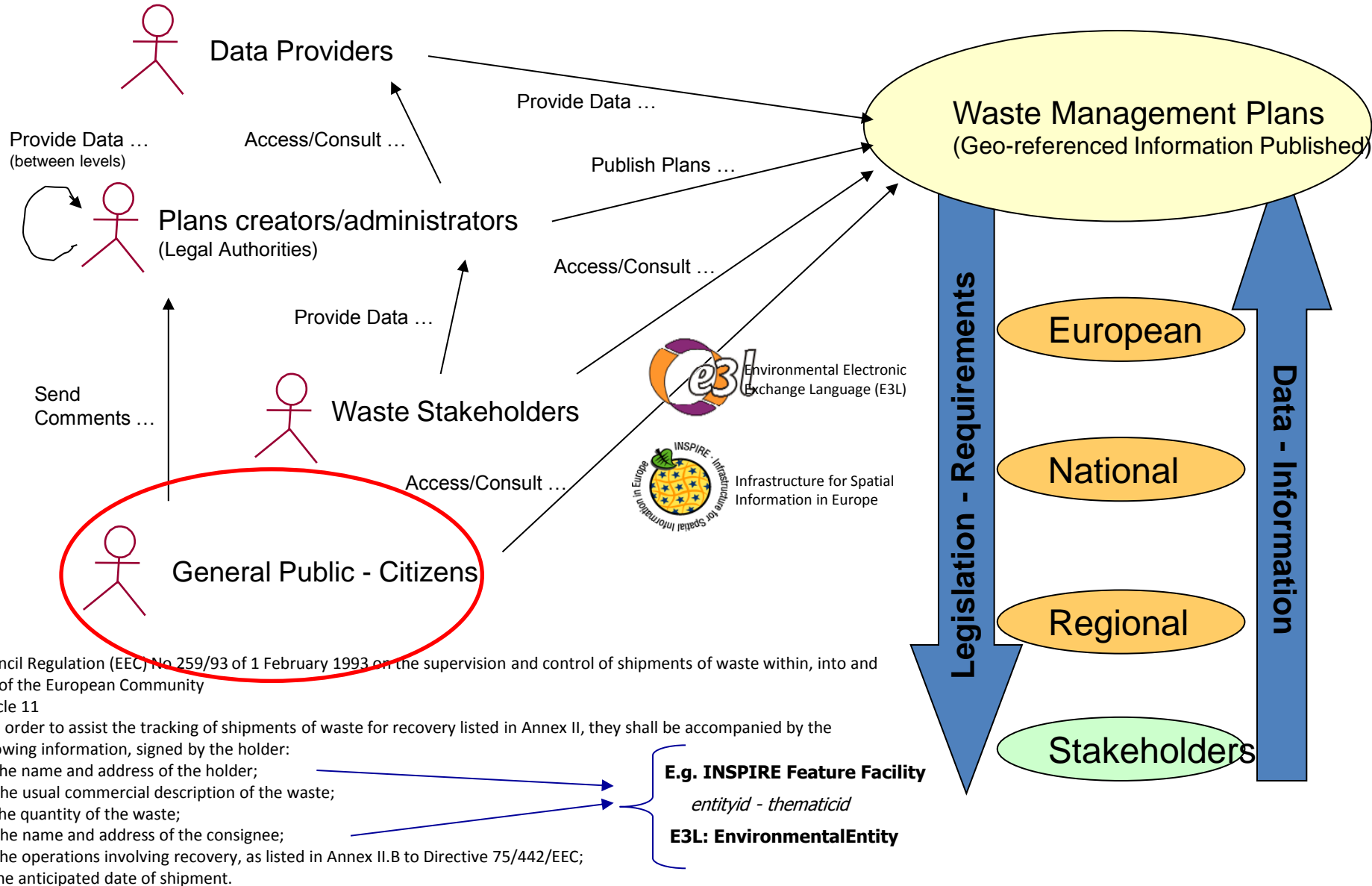


Candidates for inclusion in Generic Conceptual Model



"Waste Management Plans" Use Case (e.g.) Recycling / Waste Treatment Facilities

<http://www.wicklow.ie/Apps/WicklowBeta/Publications/Environment/WasteManPlan/Final%202006-2011%20Waste%20Management%20Plan%20Volume%203.pdf>



Open Questions

