

DATEX II

Introduction to DATEX II technology

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Topics

1

Technical principles

2

Data content technology

3

Data exchange

4

Tools: The schema wizard

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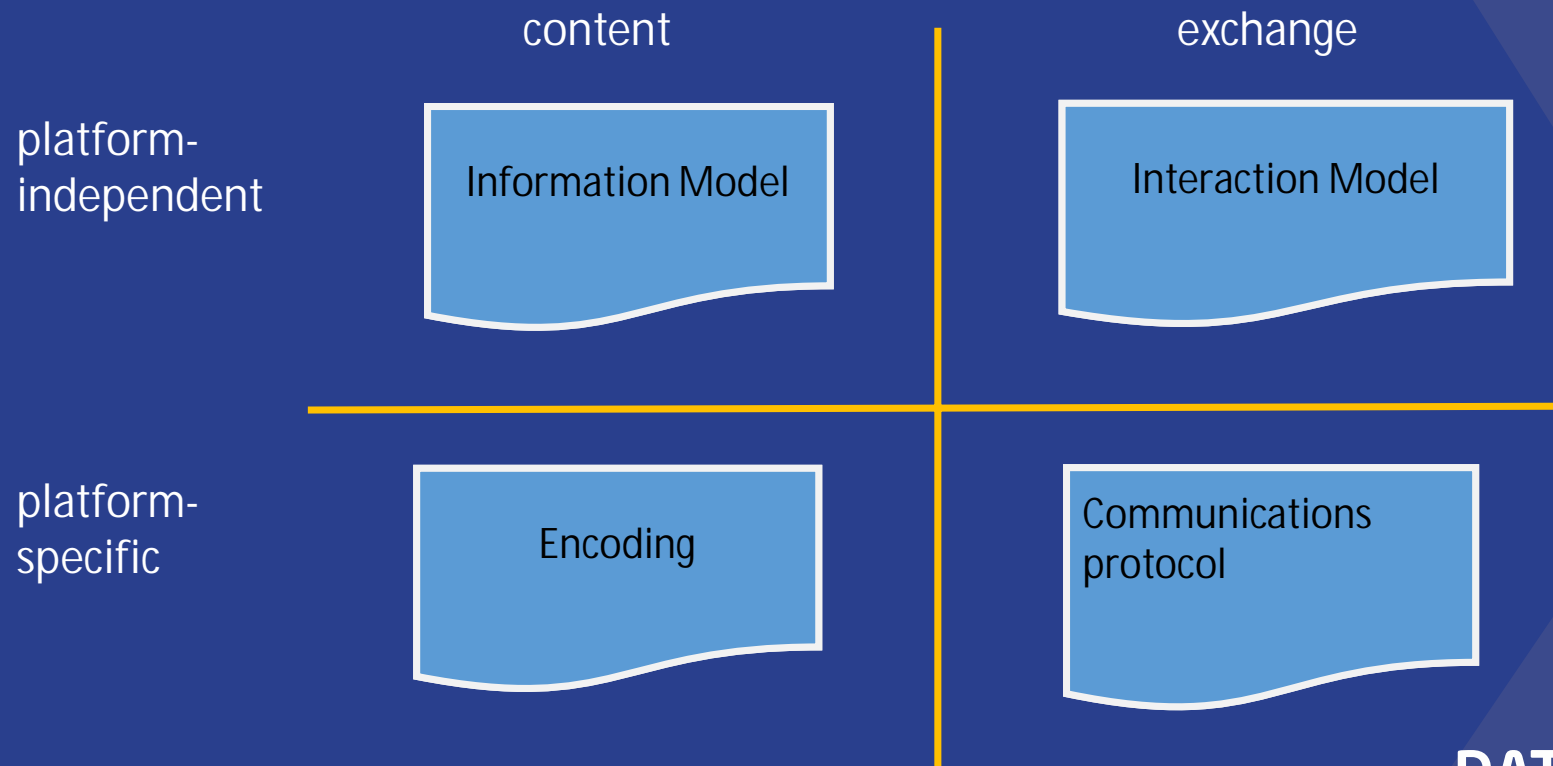


DATEX II has evolved

- New models for new functional areas
- New protocols and tools for software developers
- New communications patterns for control and collaboration
- **All enabled by the DATEX II methodology with separation of technical concerns**



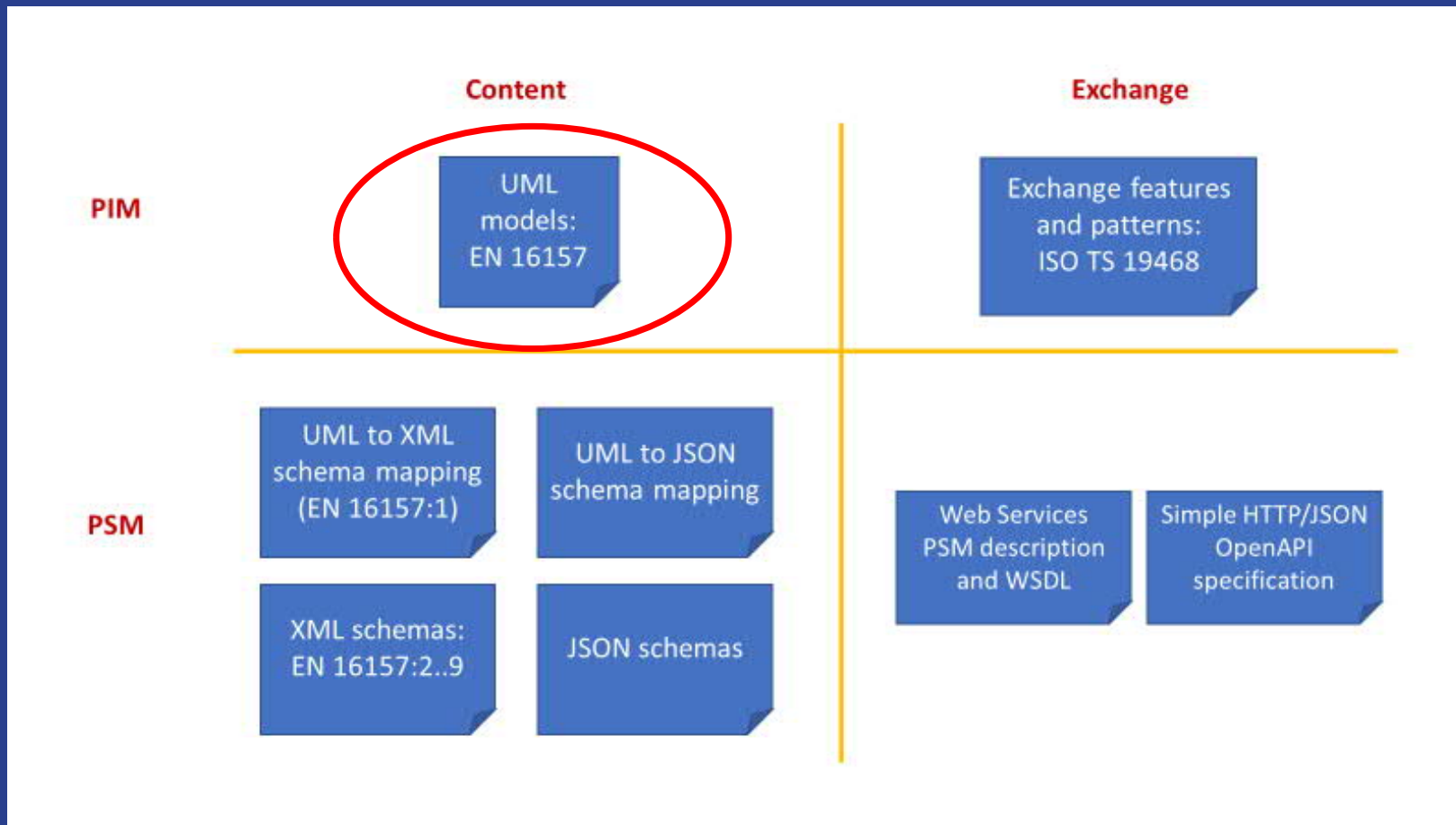
Separation of concerns – supports change



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Separation of concerns in DATEX II specifications



Content | Platform-independent models

Release 3.0 (2018)

Common elements
Location referencing
Traffic situation

D2Light (2019)

Traffic situation (light)

Release 3.1 (2020) adds

VMS
Road traffic data
Extensions:

- Urban
- Traffic management plans
- Enhanced rerouting
- Traffic signal applications

Release 3.2 (2021) to add

Parking
Vehicle energy infrastructure
Device status and faults
Traffic regulations
Enhanced satellite positioning

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Content | Platform-independent models



XMI®
XML Metadata Interchange

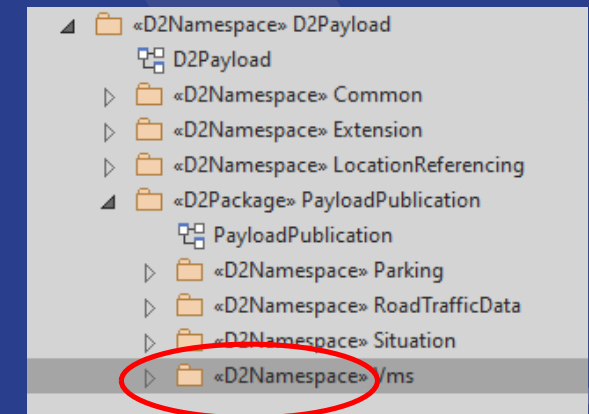
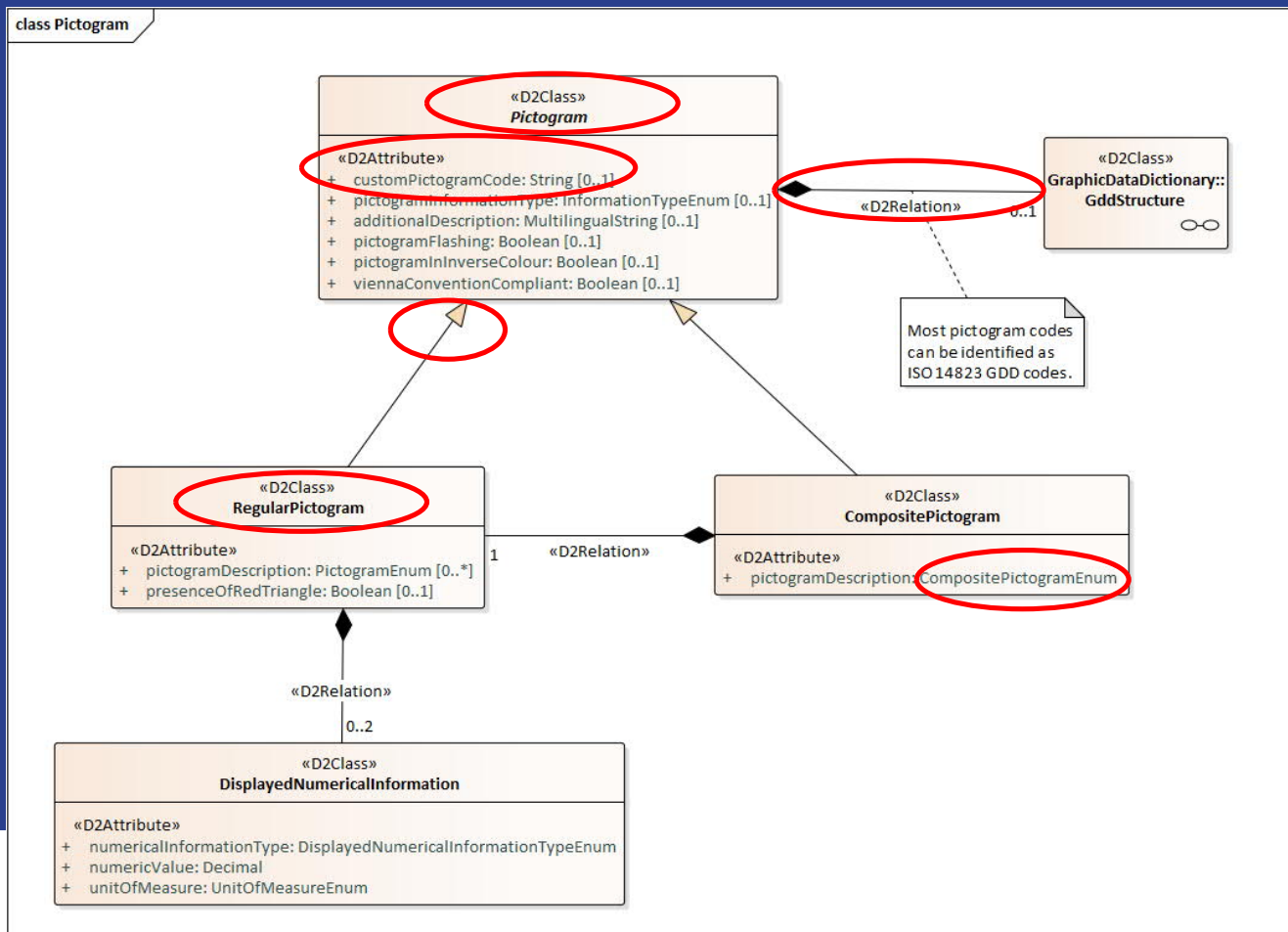


ENTERPRISE ARCHITECT

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Content | Platform-independent models

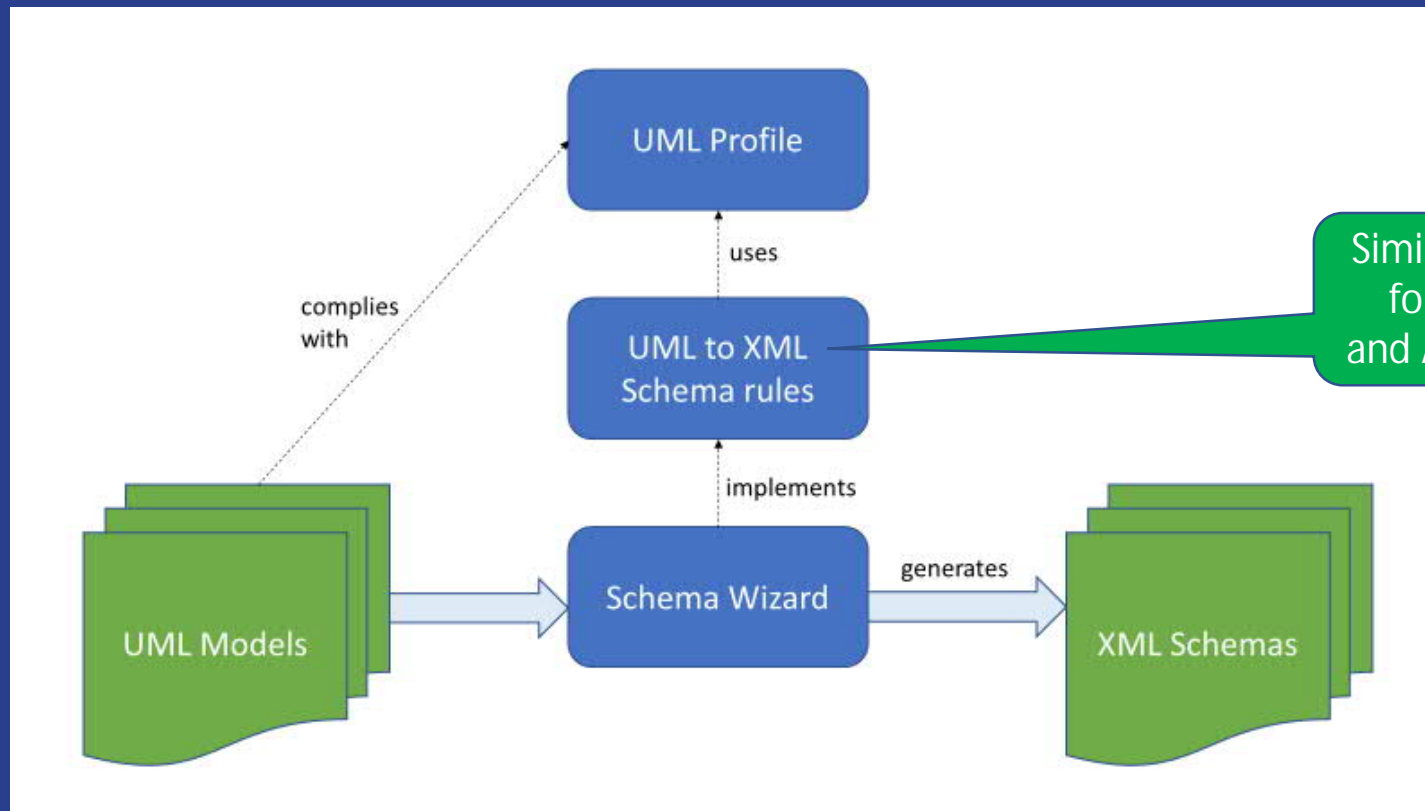


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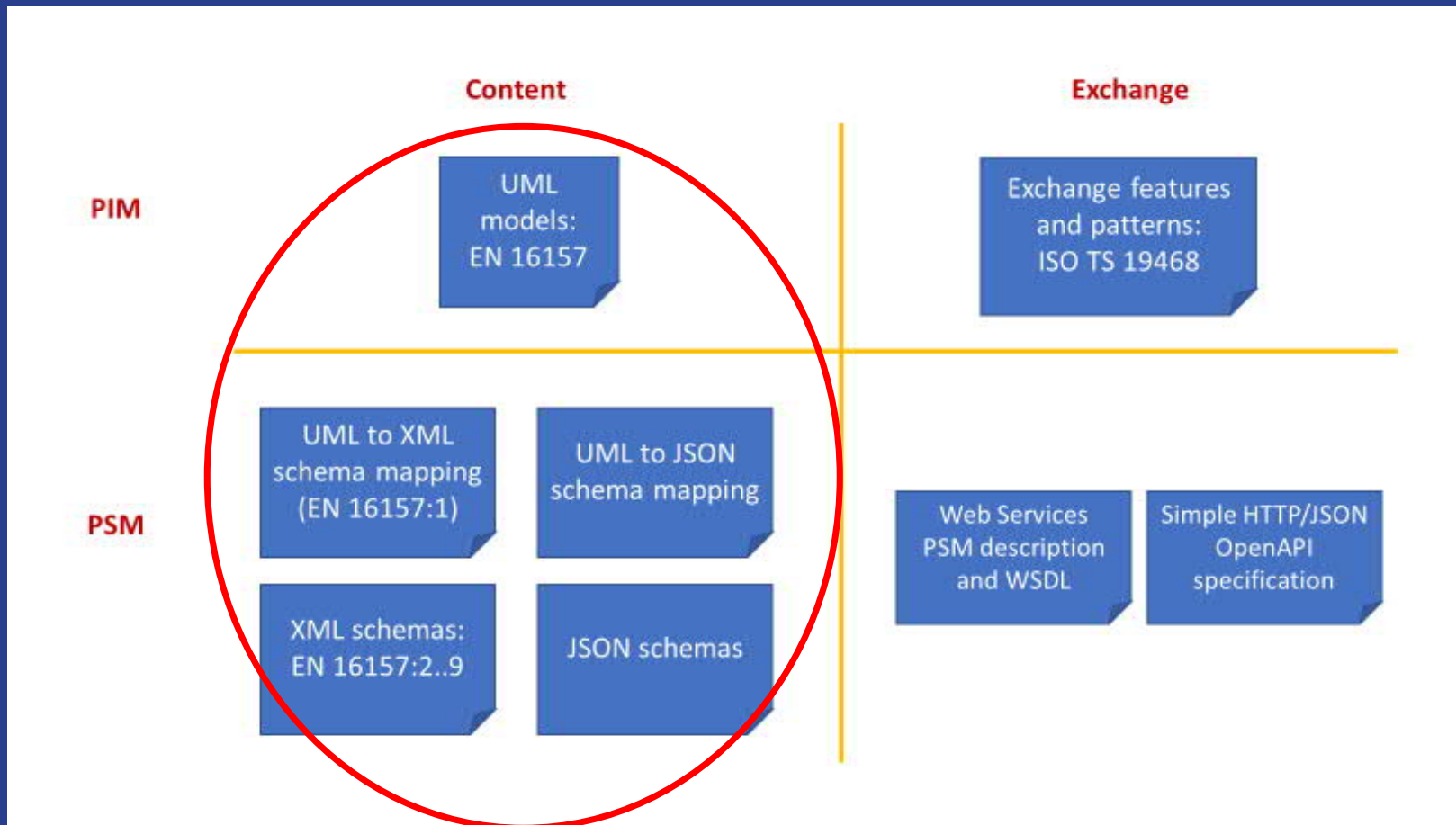
Generating code-level items from models



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Separation of concerns in DATEX II specifications



Content: Focusing on only what you need

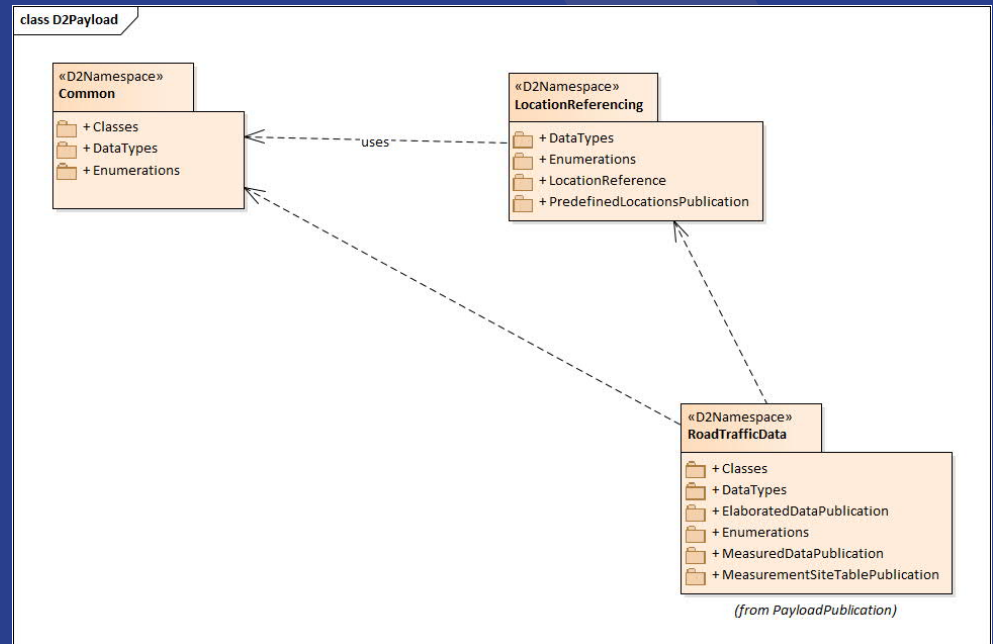
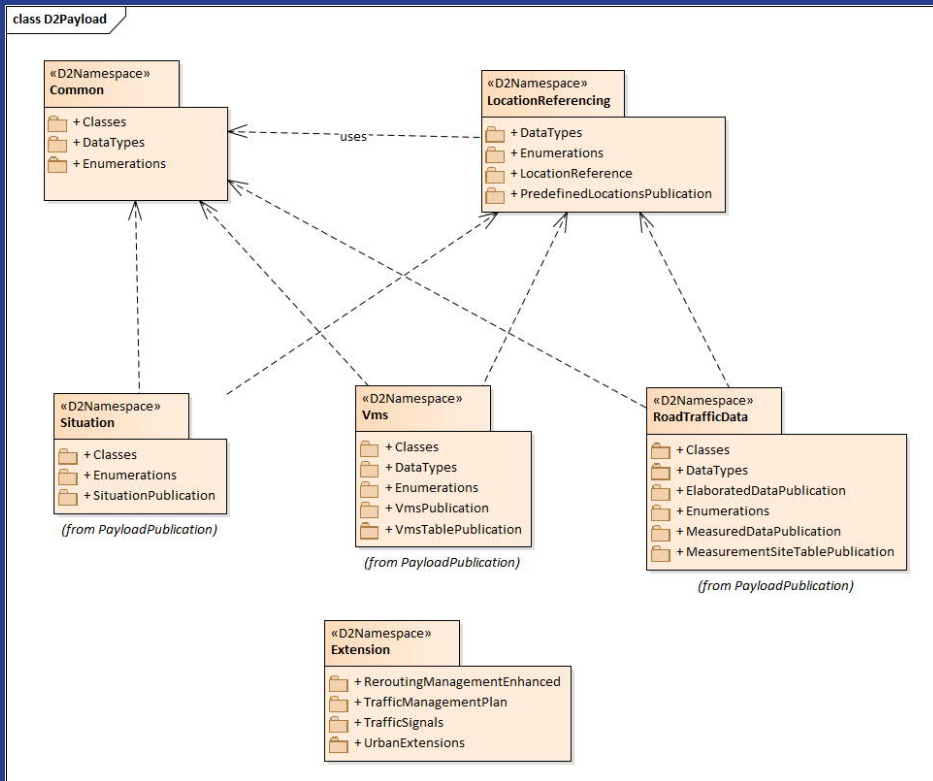
1
Modularity

2
Profiling

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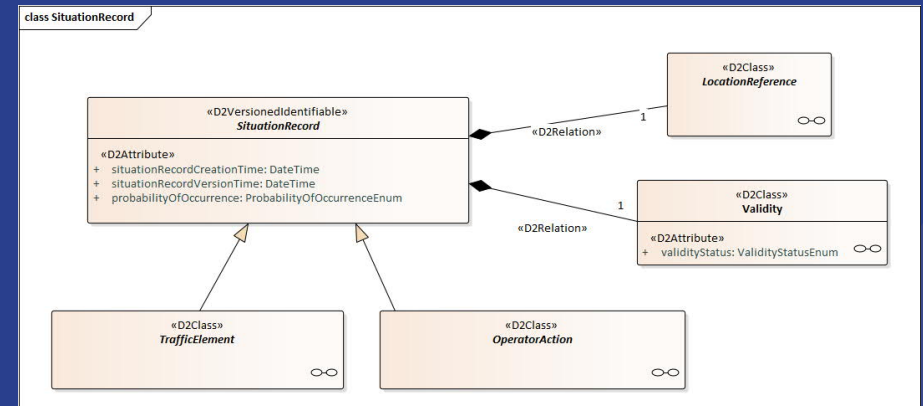
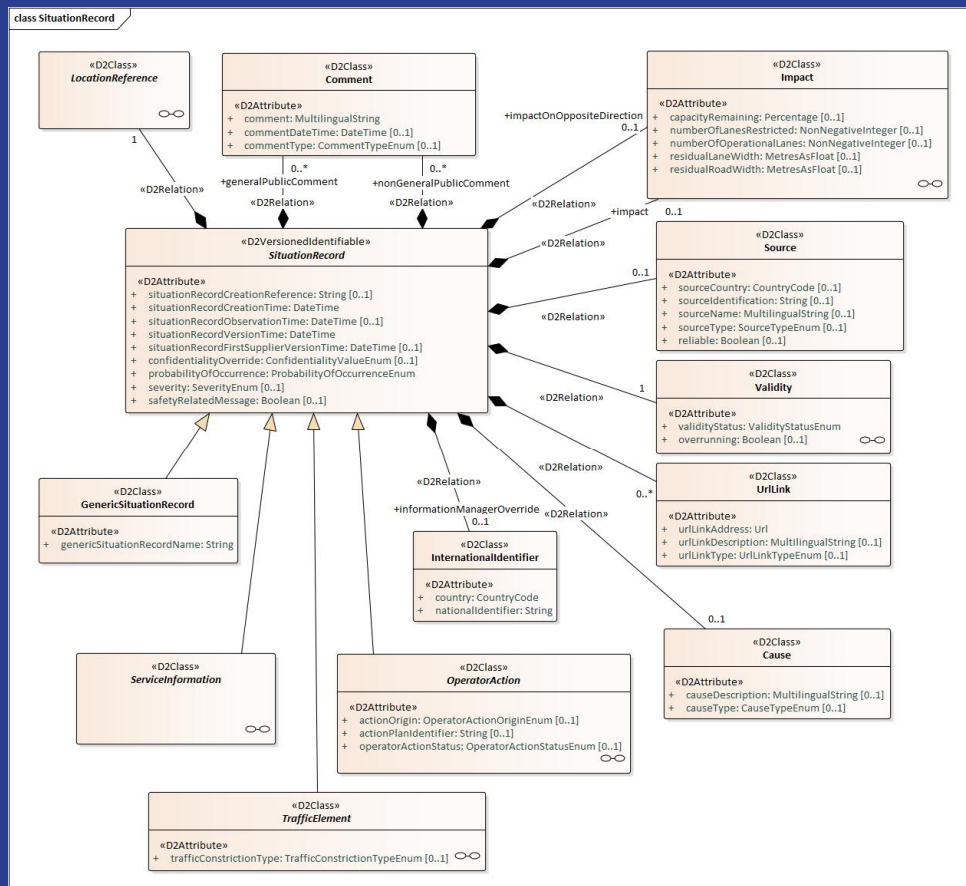
Modularity



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Profiling



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Extensibility – with interoperability

- Use published models, or profiled subset, *add* nothing

Publications interoperable with other compliant receivers - XML will validate and be understood ("Level A")

- Use published models, or profiled subset, add items following **rules**

Publications still interoperable with other compliant receivers - XML still validates though meaning of added items not known ("Level B")

- Make your own model following DATEX II modelling methodology

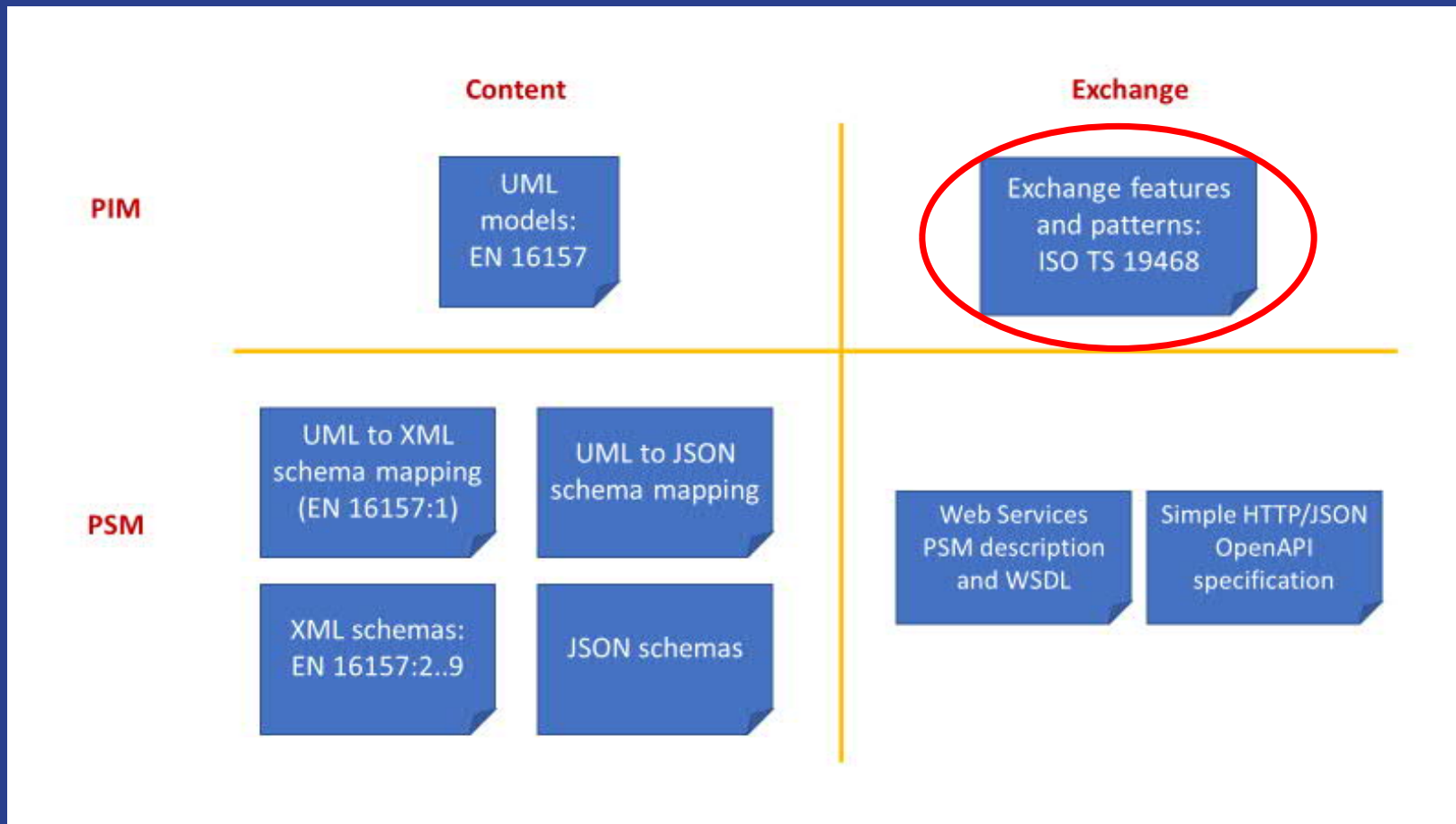
Publications interoperable with generic tools ("Level C")

(May be adopted into future DATEX II specifications, achieve Level A compliance)

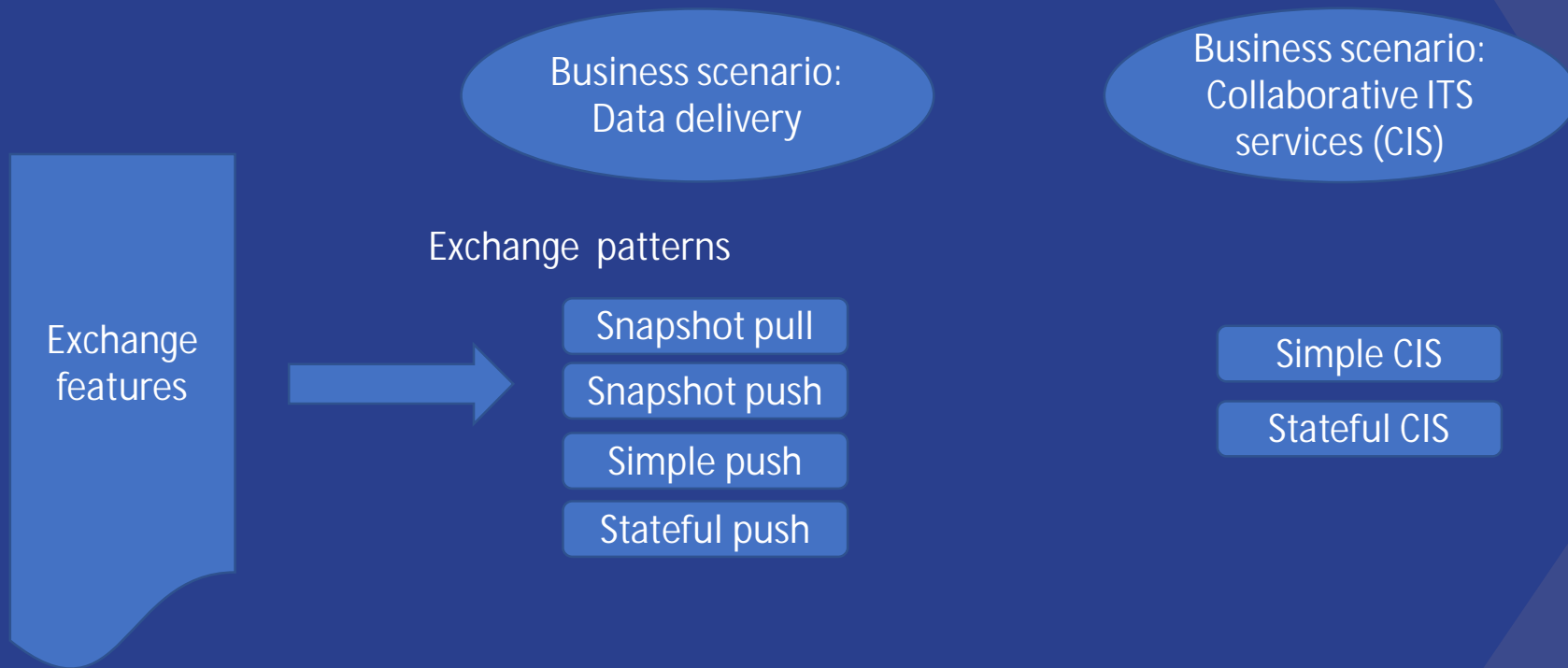
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Separation of concerns in DATEX II specifications



Exchange | Platform-independent

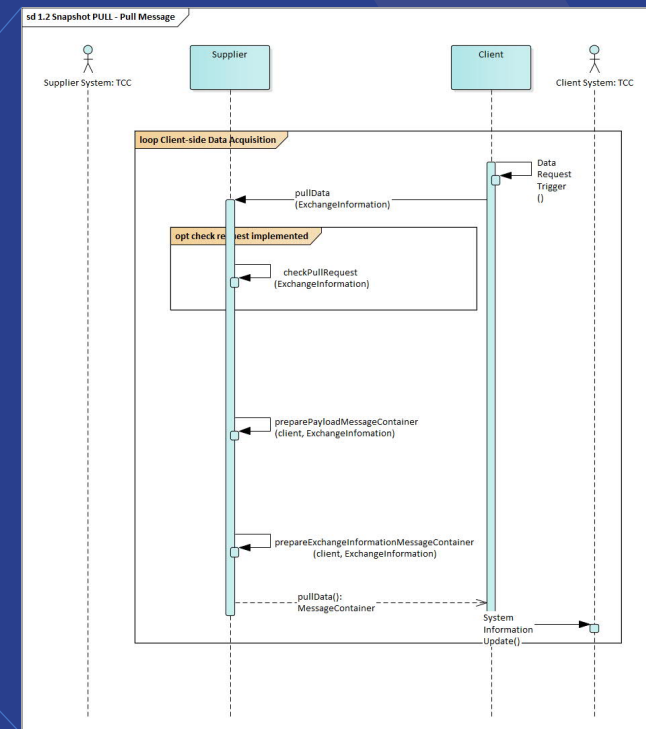


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Exchange | Platform-independent

Snapshot pull

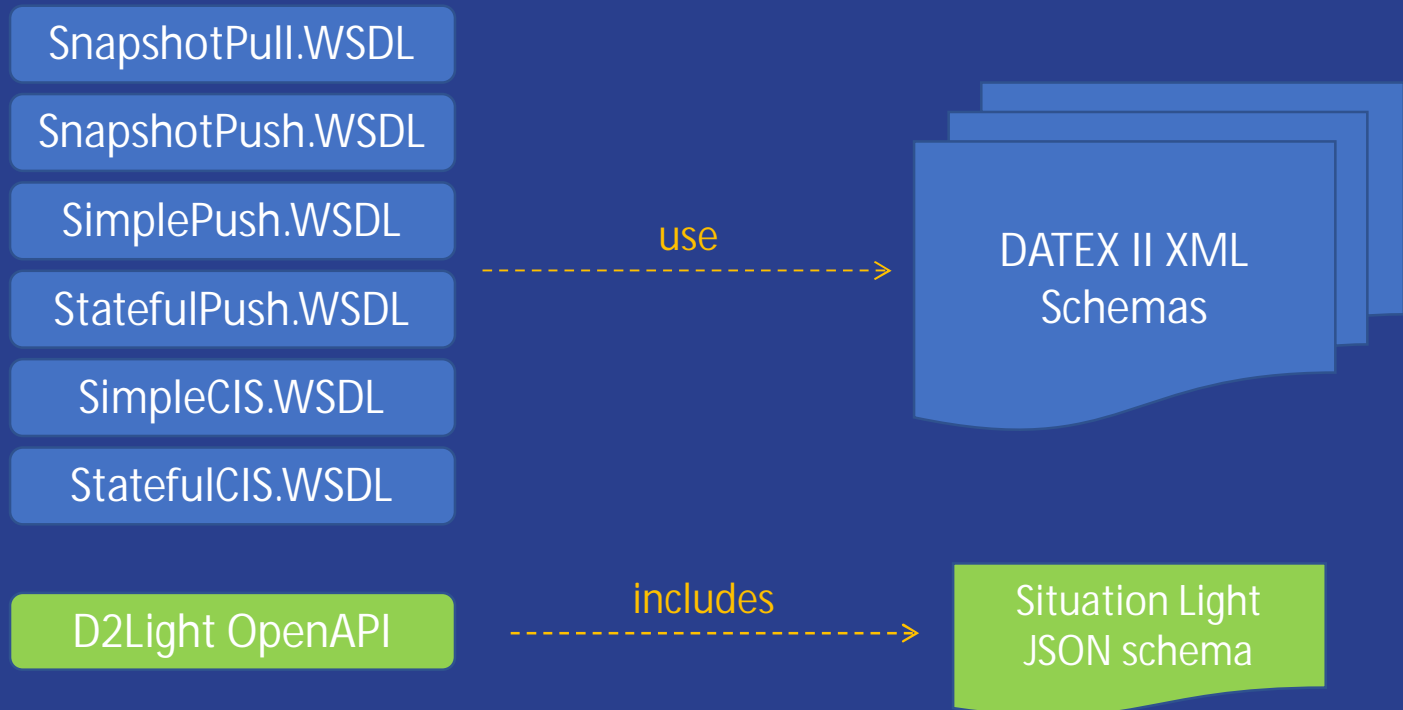


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Exchange | Platform-specific



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Thank you

Coming next: Tools – the schema wizard

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