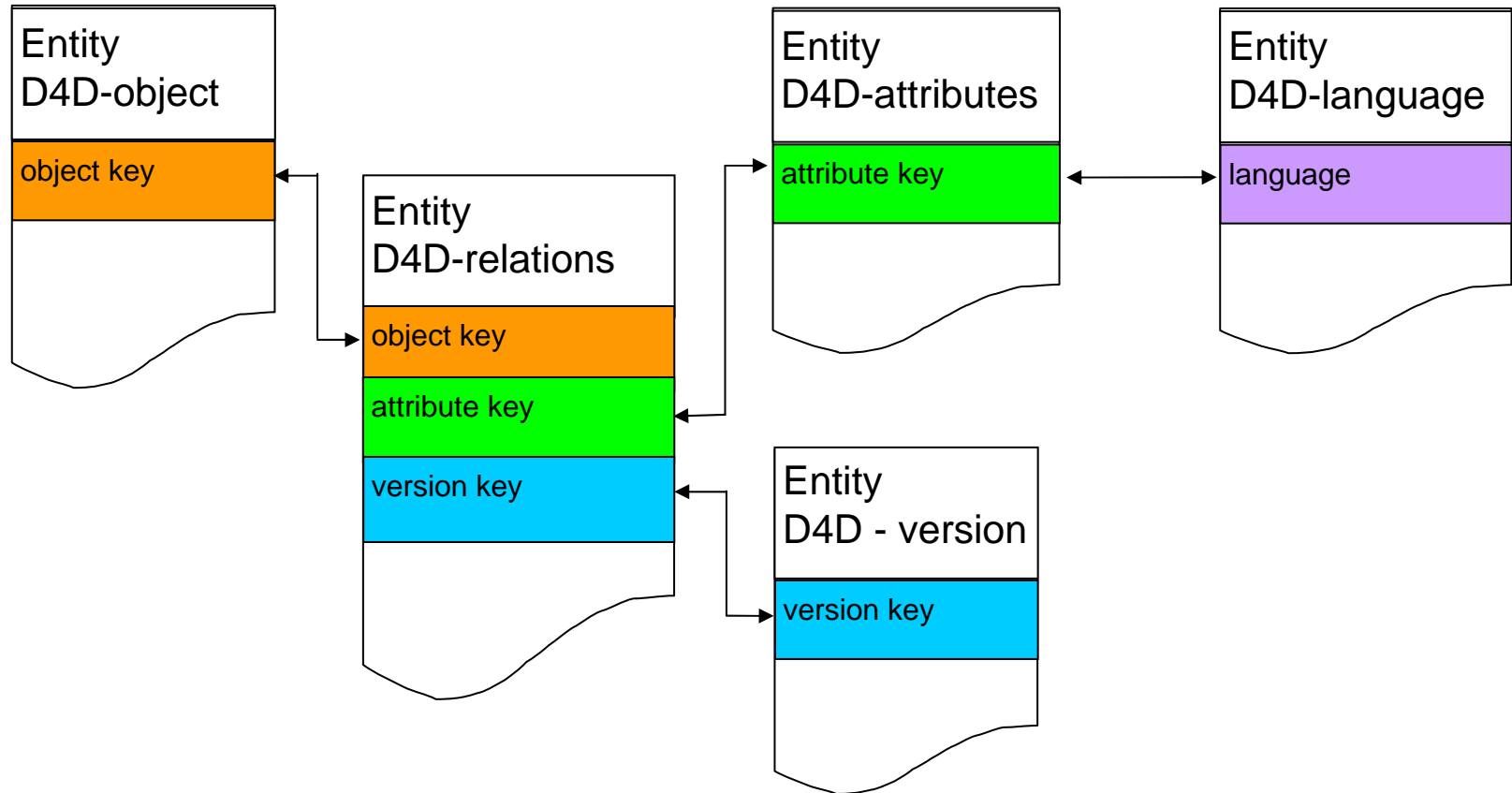


Agenda

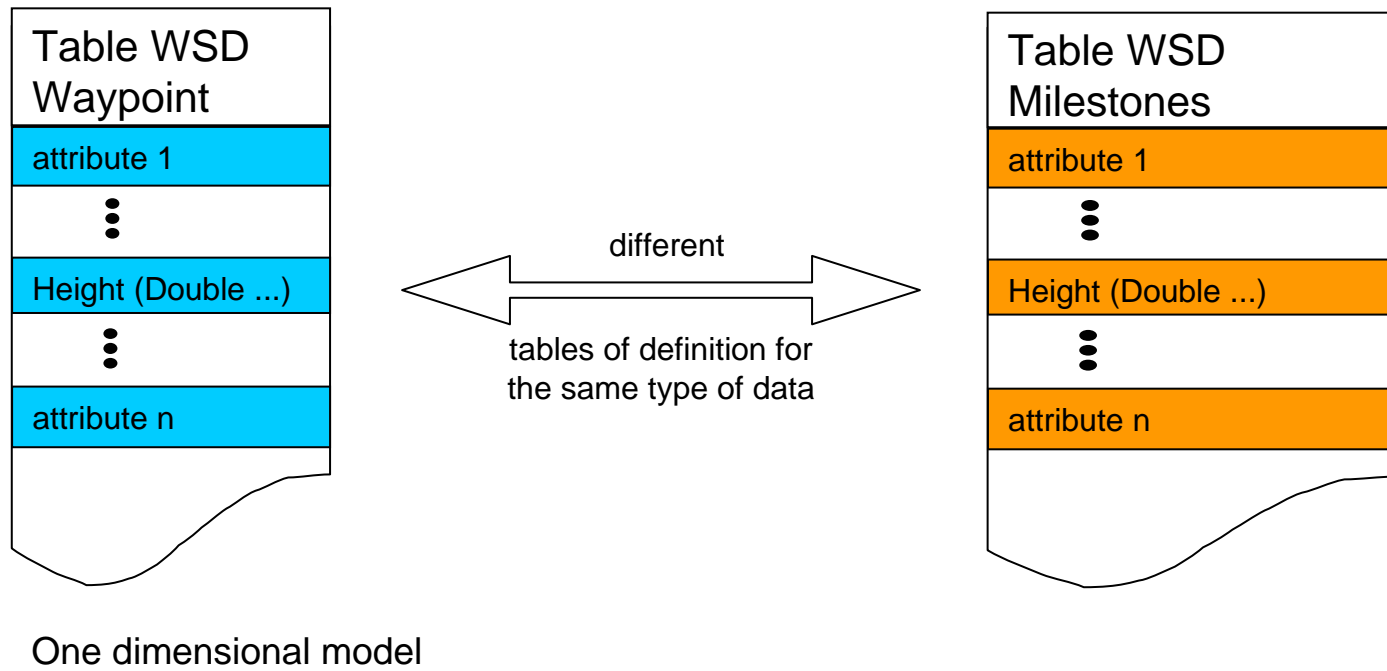
- **D4D – object catalog**
- **Versioning**
- **One dimensional model vs. relational object model**
- **Independency of language**
- **Data storage**
- **Distributed data pools vs. shared data pool**
- **Tools**

D4D-object catalog

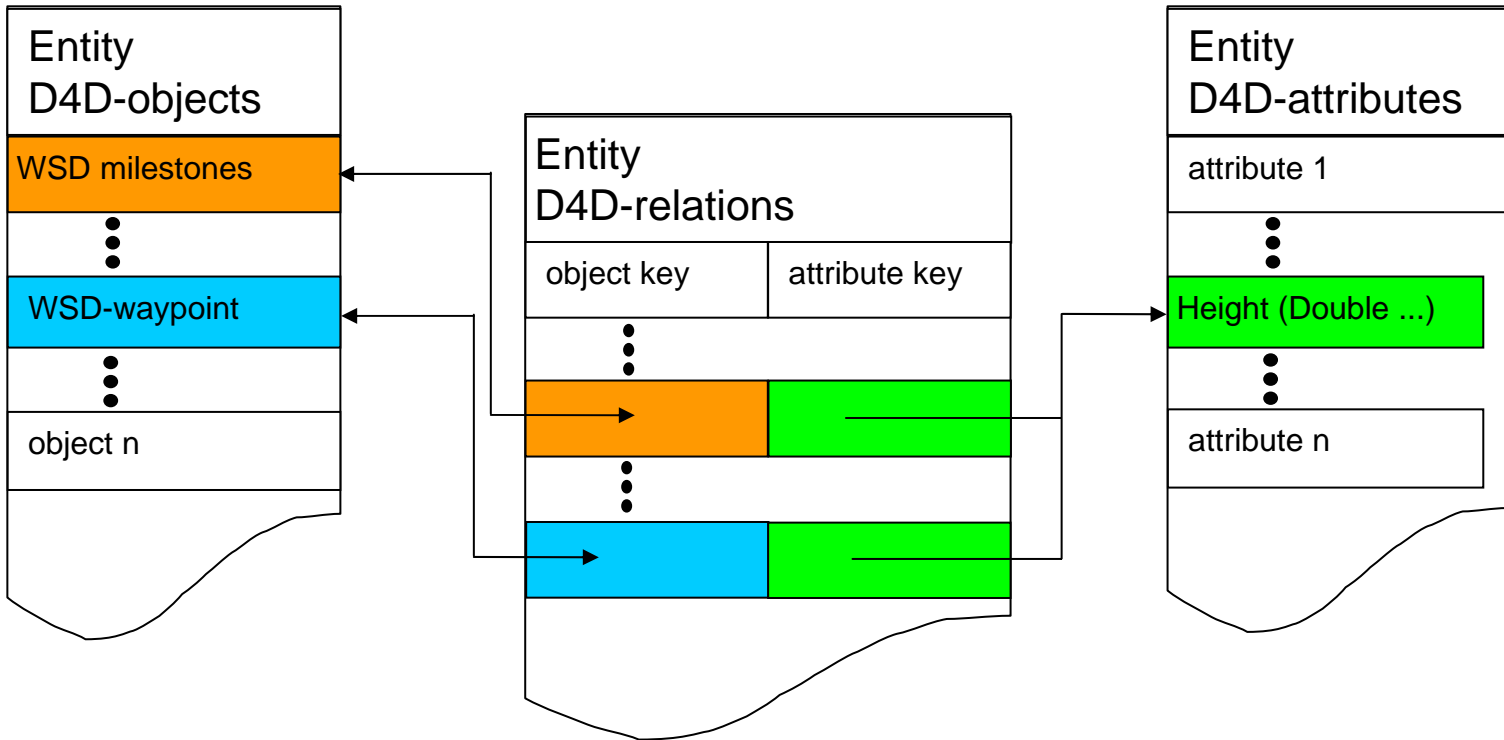


Advantages

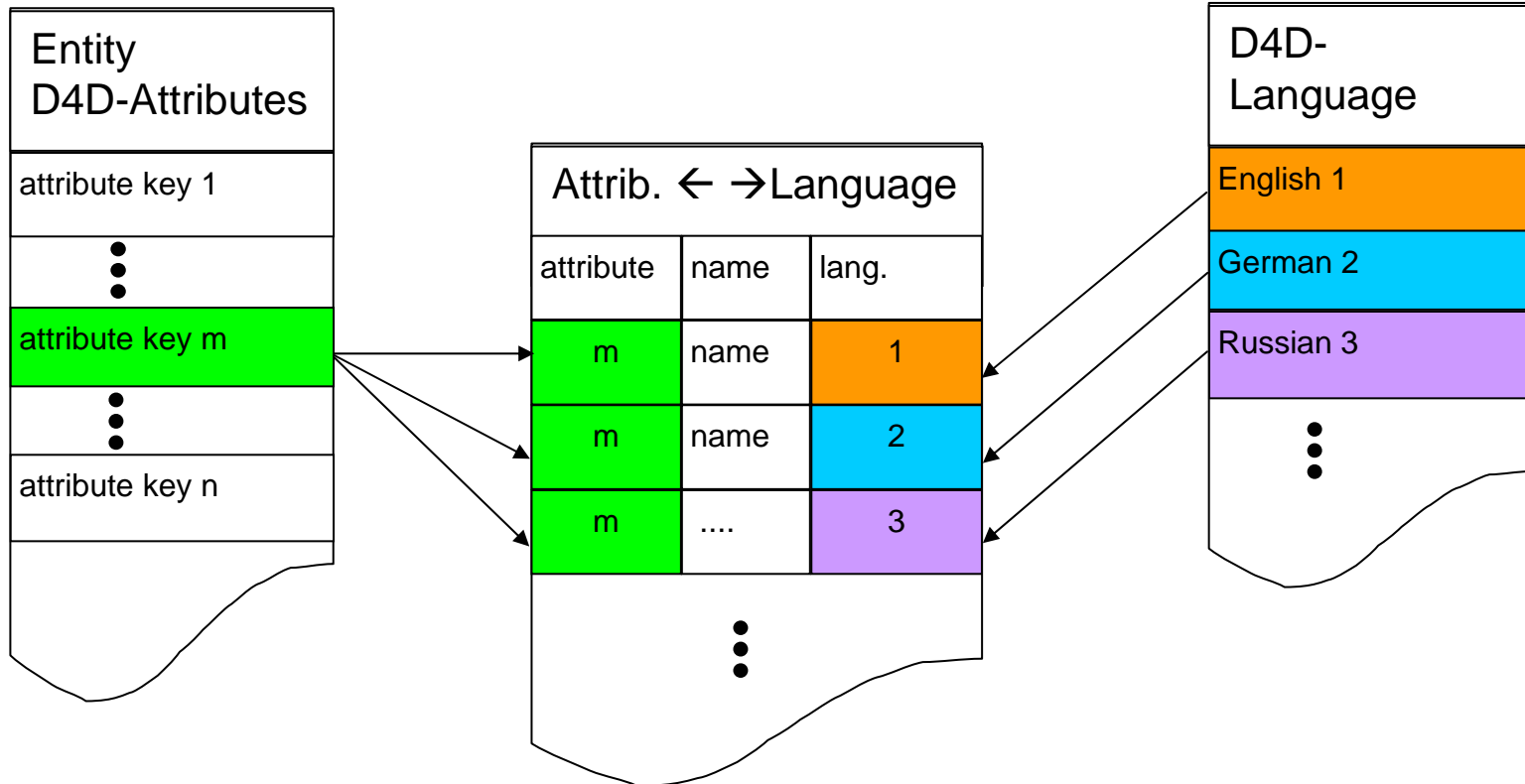
- Definition of the object can be easily changed
- All instances of attributes share the same definition
- One dimensional model vs. relational object model



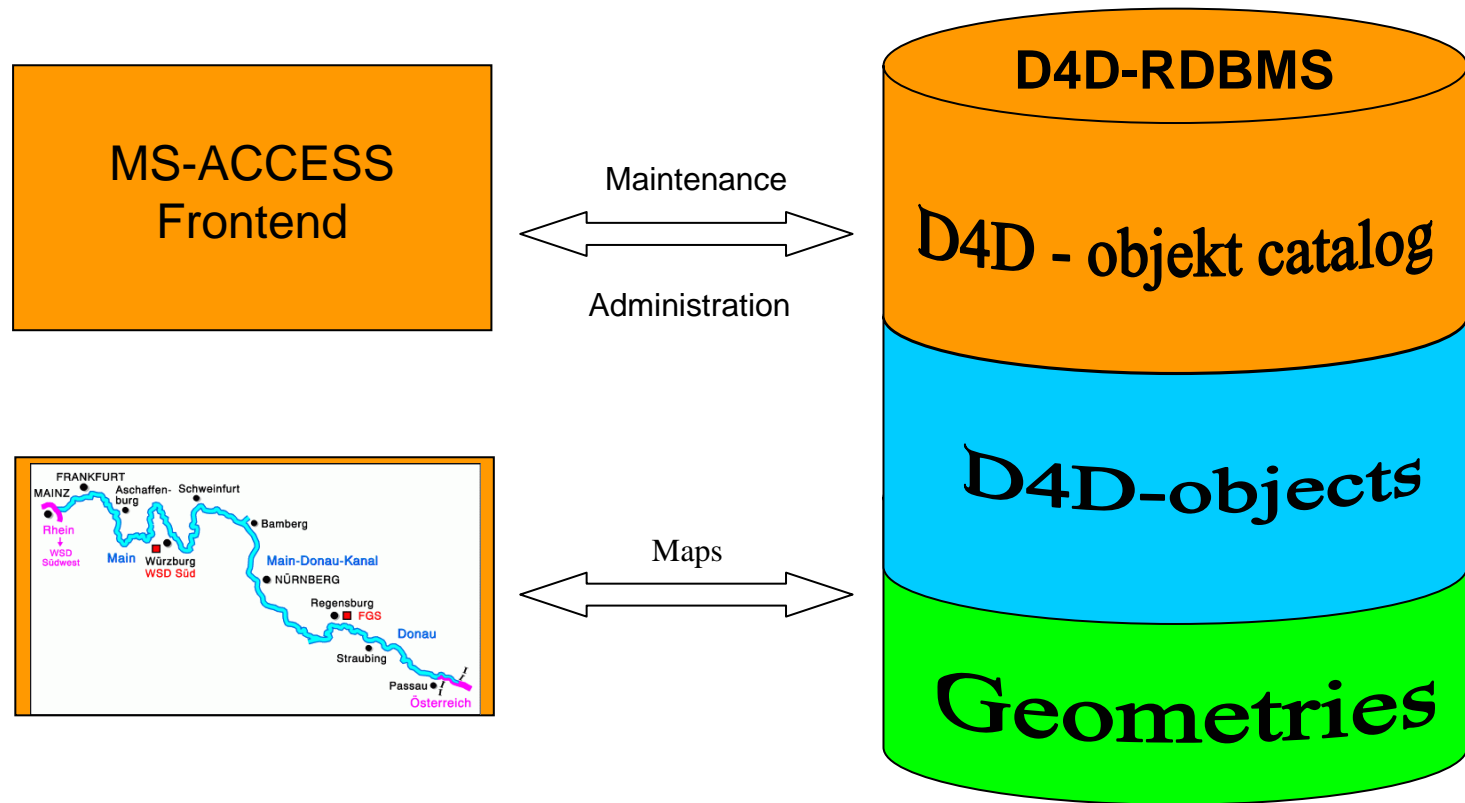
Relational object model



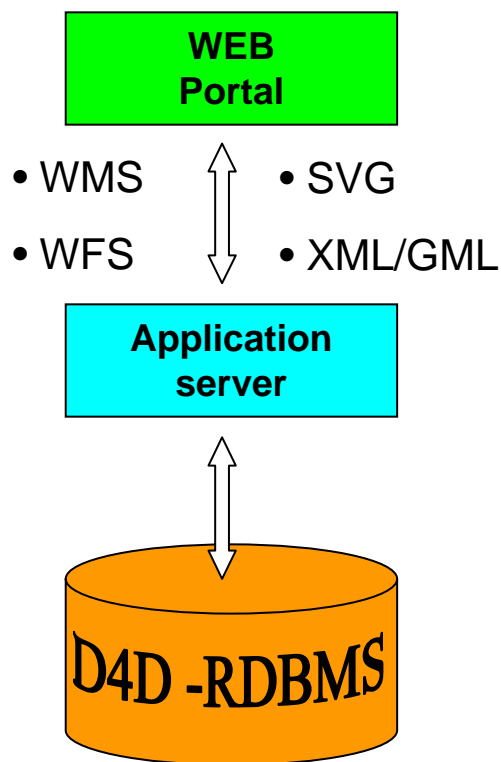
Language independent



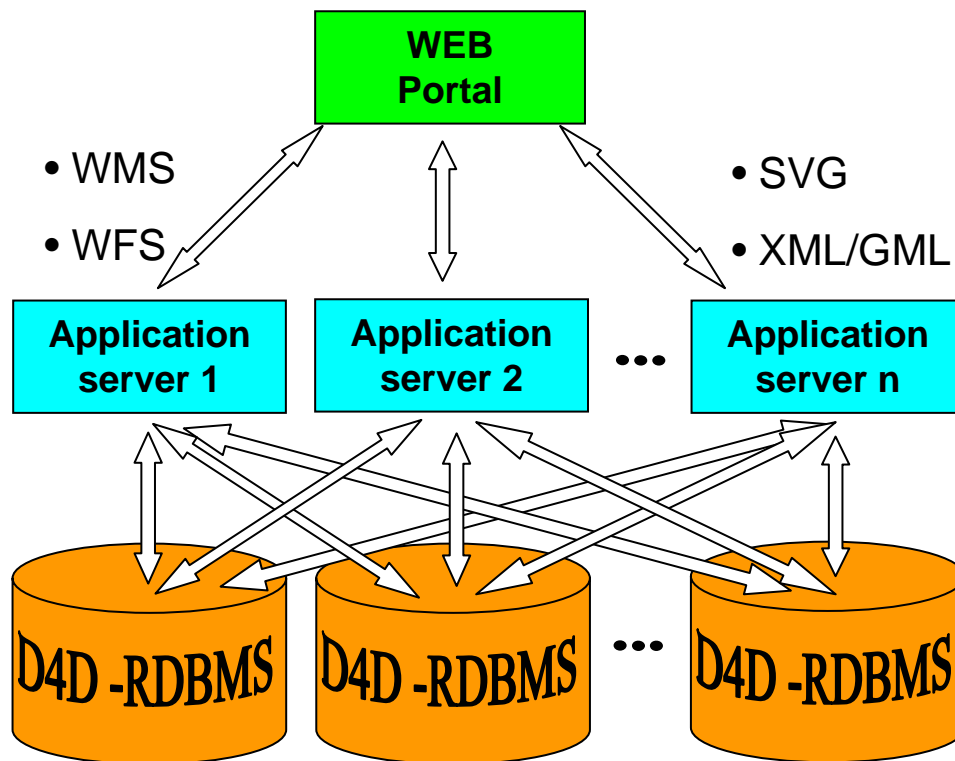
Data storage



Shared Data pool



Distributed data pools with national application- and database server



Impacts	Shared data pool vs. distributed data pools
System administration	<ul style="list-style-type: none">Shared data pools are easier to maintain and have lower overall costsDistributed data pools multiply the administration costs
Data administration	<ul style="list-style-type: none">Shared data pools are more difficult to maintain due to the amount of different nations providing data at different levelDistributed data pools are smaller in size and are maintained by each nation
Versioning Conformance of data	<ul style="list-style-type: none">A shared data pool will always be at the version of the „slowest“ data providerDistributed data pools fit easier to national needs, while still providing the „allover minimum“ version

	Shared data pool vs. distributed data pool
Availability	Distributed data pools grant a higher availability than a single data pool
Cost of ownership	Distributed data pool are more expensive than a single data pool.
Scalability and response times	Distributed data pools can be faster in response in case of queries that span over borderlines, since the queries has to be split, to be answered by two different server.



Due to the huge amount on coordination effort and the advantages in scalability and response times, we suggest a distributed data pool with national server.

Tools

- **RDBMS: Oracle 9i (with spatial/locator)**
- **Application server: Oracle IAS or Tomcat**
- **Web server: Apache (ships with Oracle)**
- **Frontend for object catalog : MS-Access**

Thank you

Any questions ?