



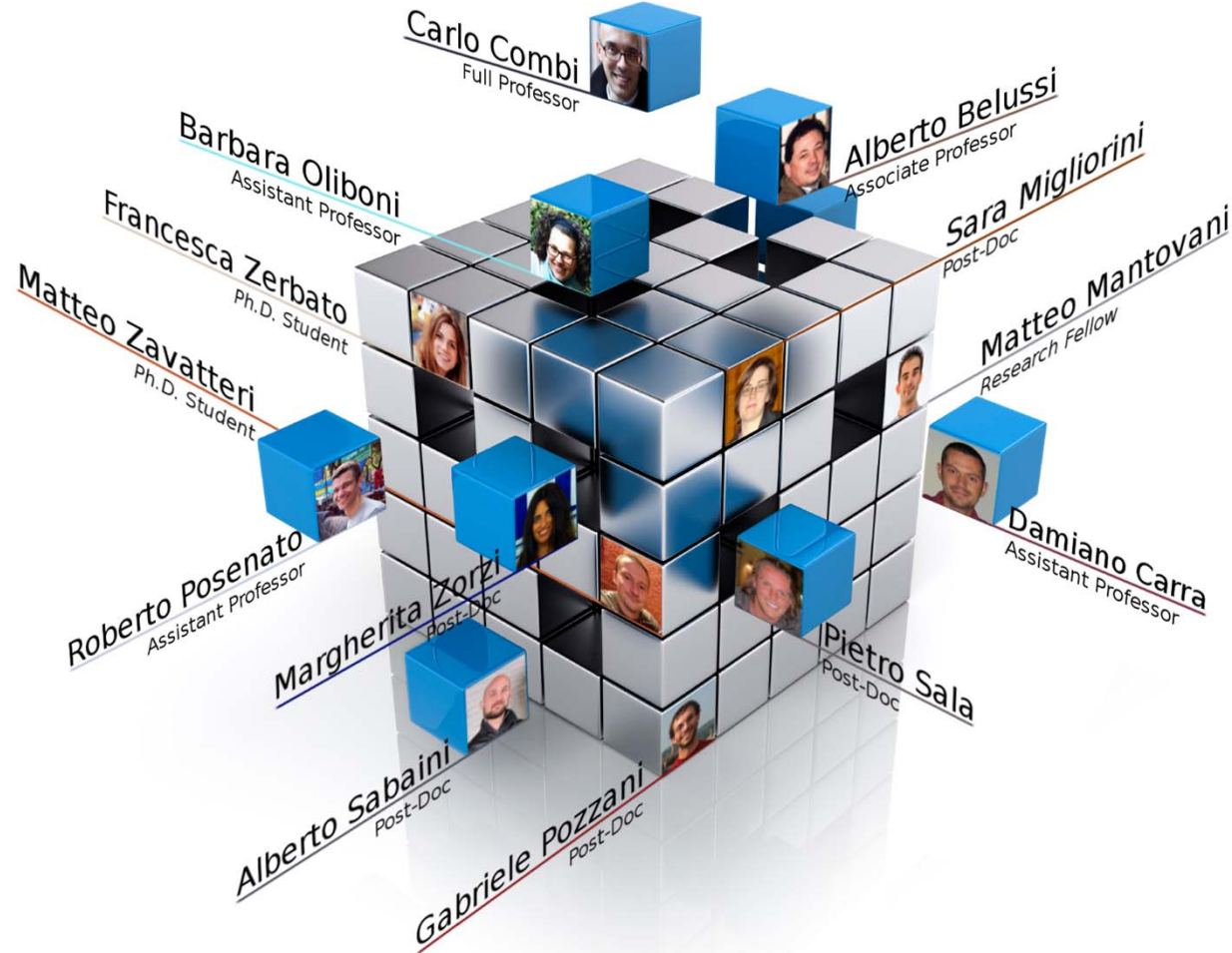
STARS

Semistructured Temporal clinical Geographical Systems





Who we are



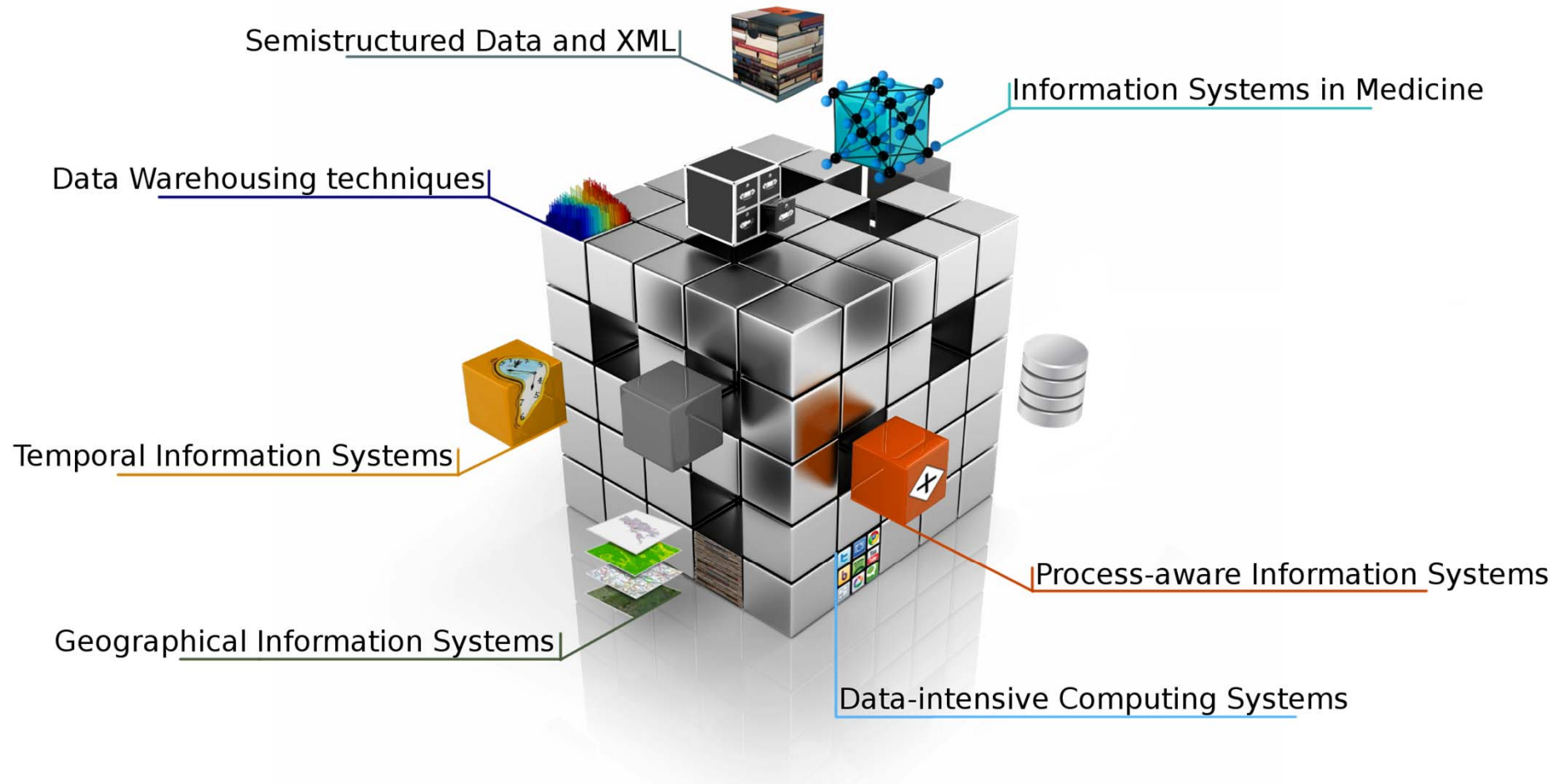


Why Information Systems





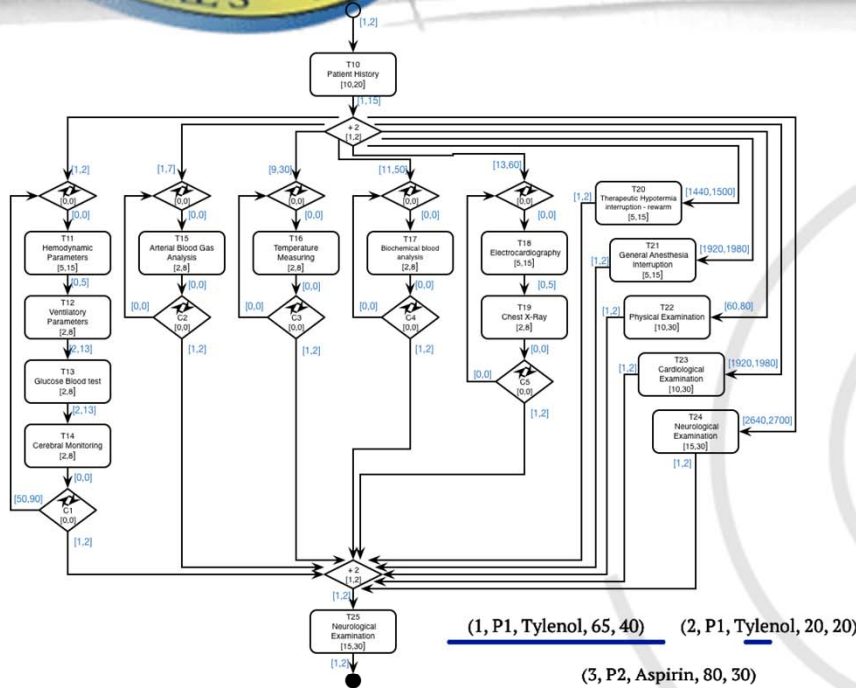
Group research summary



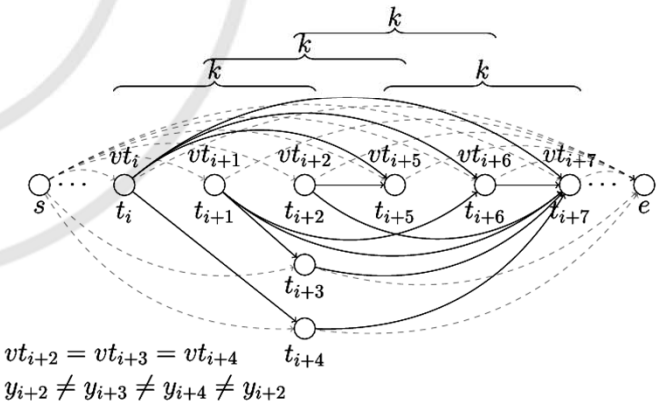
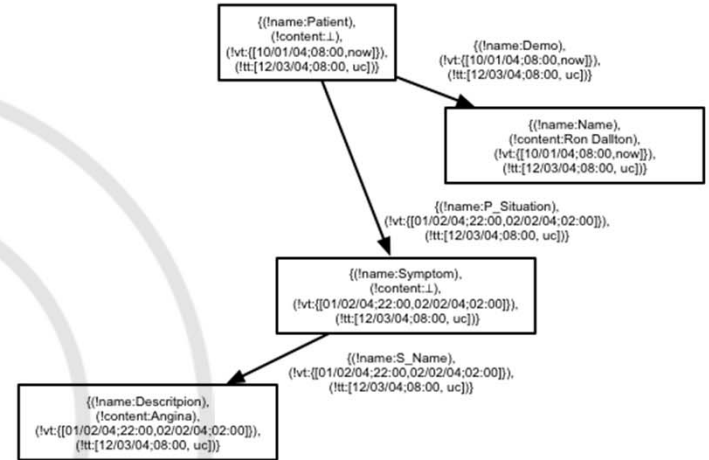
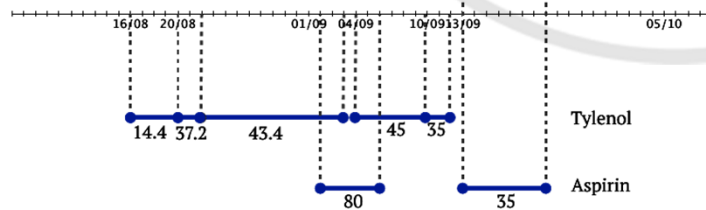


Temporal Information Systems

Combi, Oliboni, Posenato, Sabaini, Sala, Zerbato



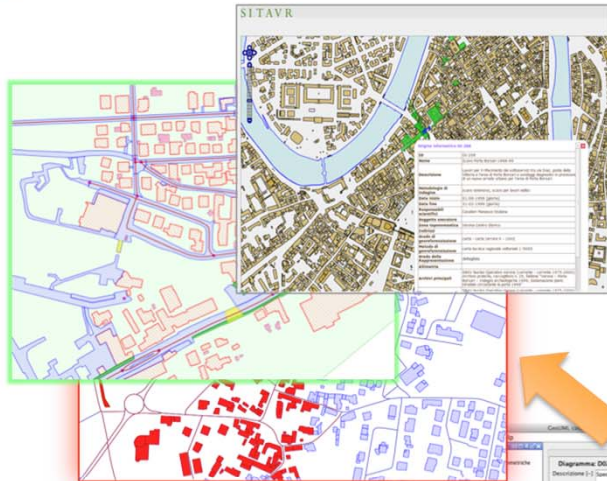
- (1, P1, Tylenol, 65, 40)
- (2, P1, Tylenol, 20, 20)
- (3, P2, Aspirin, 80, 30)
- (4, P3, Tylenol, 60, 30)
- (5, P4, Tylenol, 30, 40)
- (6, P4, Aspirin, 35, 50)



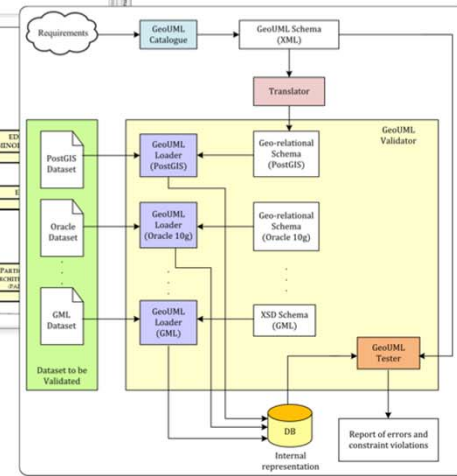
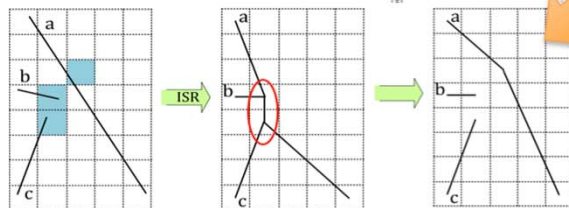
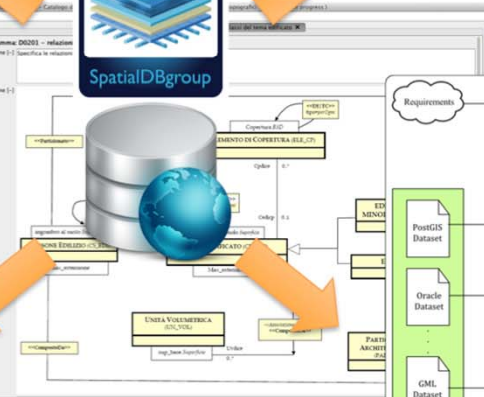
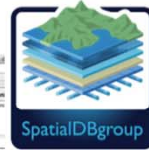
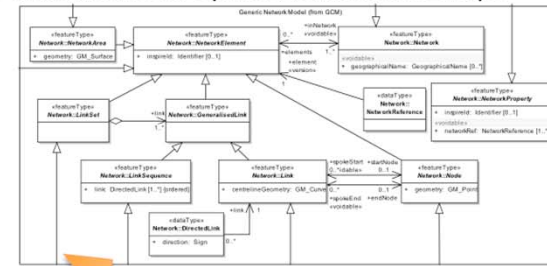


Geographical Information Systems

Belussi, Migliorini



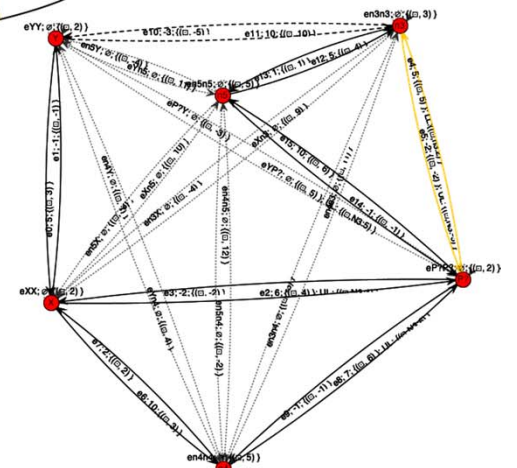
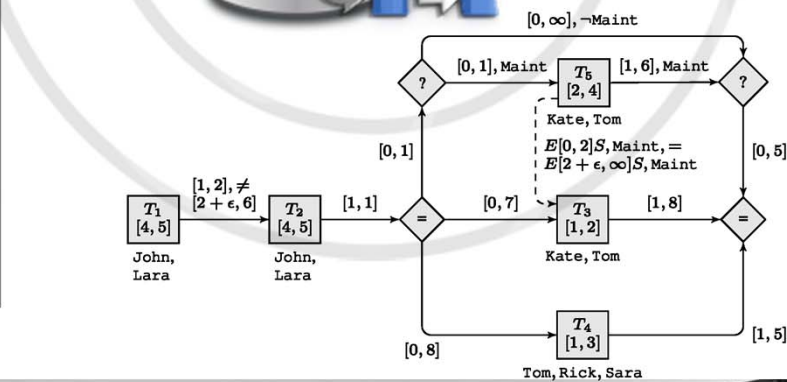
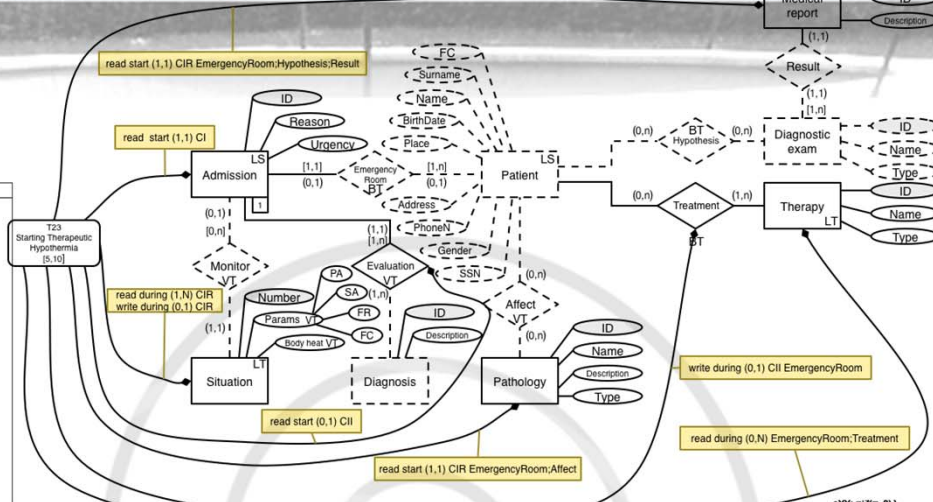
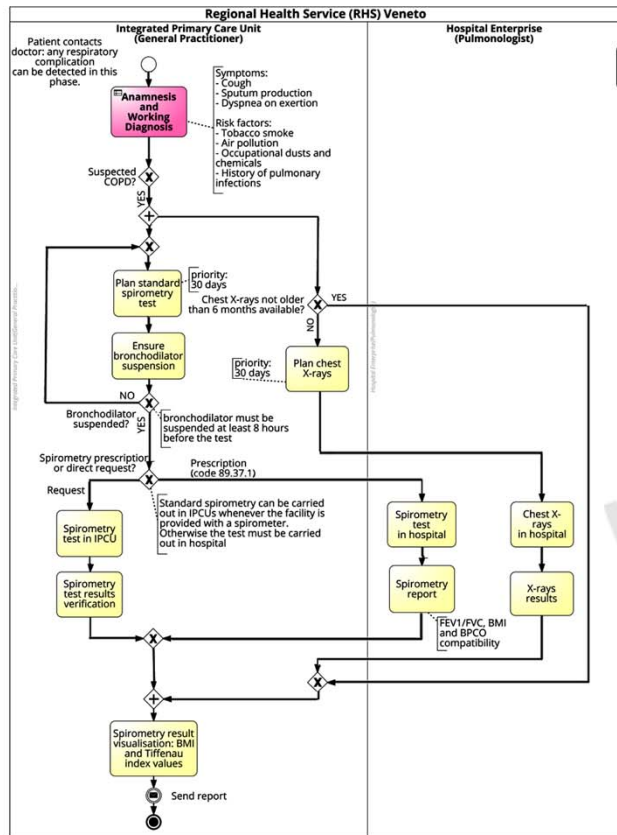
INSPIRE
Infrastructure for Spatial Information in Europe





Process-aware Information Systems

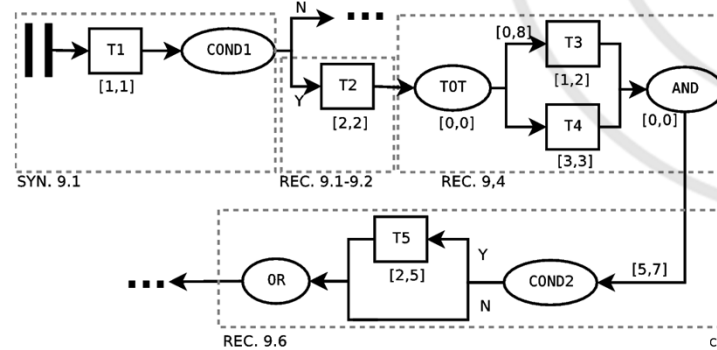
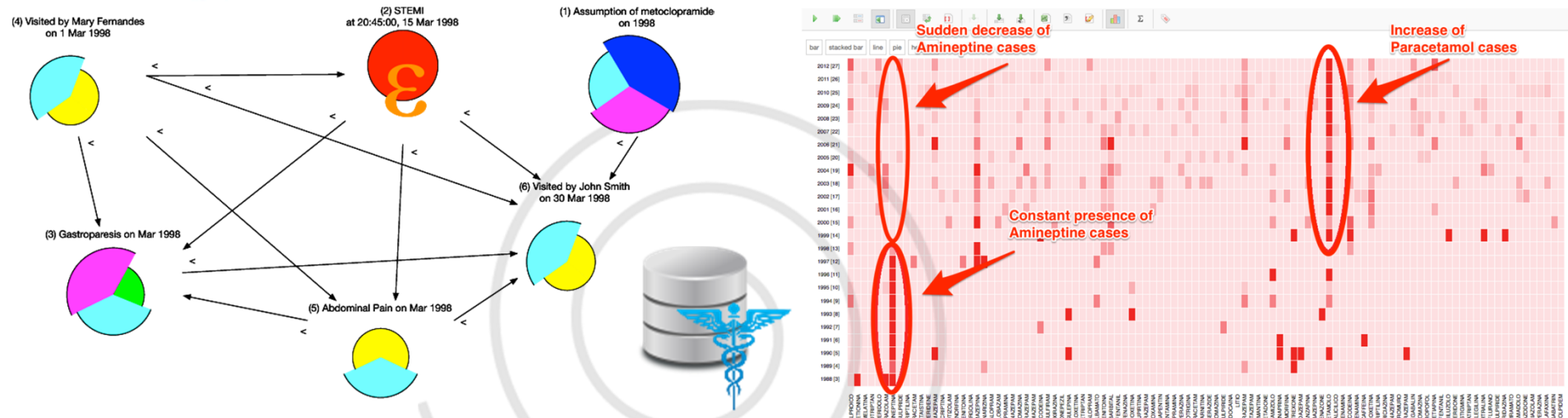
Combi, Oliboni, Posenato, Zavatteri, Zerbato



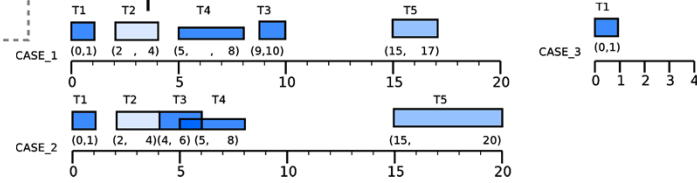


Information Systems in Medicine

Combi, Oliboni, Pozzani, Sabaini, Sala, Zerbato, Zorzi



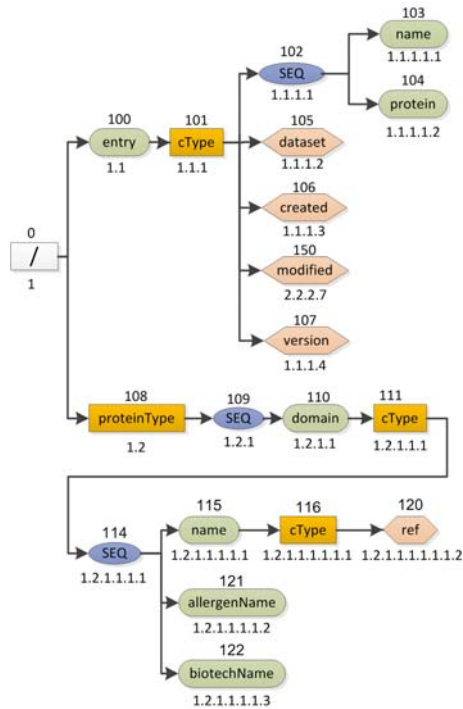
| Workflow | Clinical Guideline |
|----------|-------------------------|
| T1 | Hospital Admission |
| COND1 | Suspect Stroke ? (Y/N) |
| T2 | Neurological Assessment |
| TOT-AND | (do in parallel) |
| T3 | Blood count+platelets |
| T4 | Coagulation tests |
| COND2 | Admitted to E.R.? (Y/N) |
| T5 | Electrocardiogram |





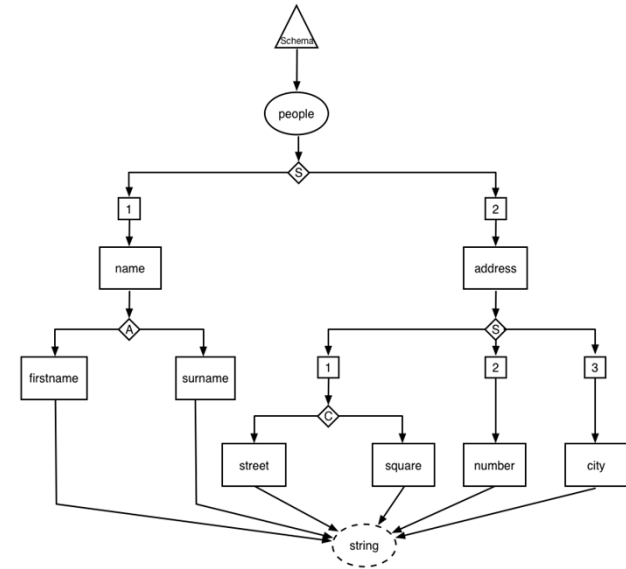
Semistructured Data and XML

Combi, Oliboni, Zorzi

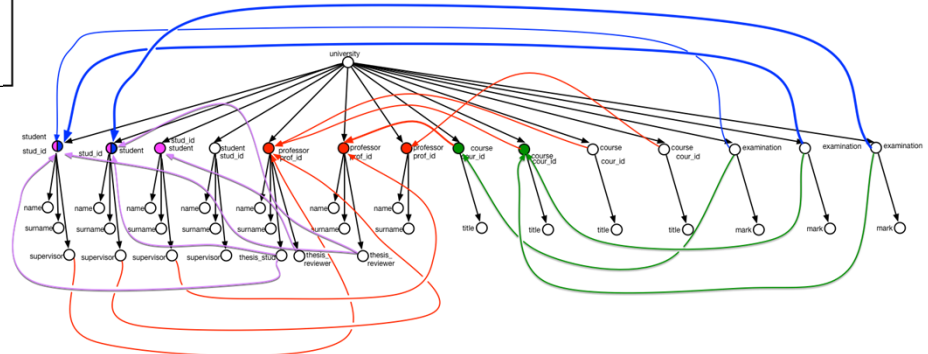
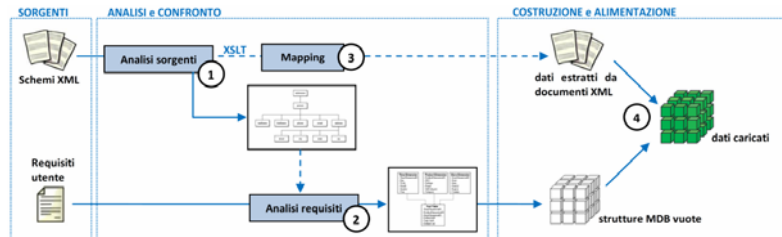


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2 <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" >
3   <xs:element name="entry">
4     <xs:complexType>
5       <xs:sequence>
6         <xs:element name="name" type="xs:string"/>
7         <xs:element name="protein" type="proteinType"/>
8       </xs:sequence>
9       <xs:attribute name="dataset" use="optional" type="xs:string"/>
10      <xs:attribute name="created" type="xs:date" use="required"/>
11      <xs:attribute name="version" type="xs:integer" use="required"/>
12    </xs:complexType>
13  </xs:element>
14  <xs:complexType name="proteinType">
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16      <xs:element name="domain" maxOccurs="unbounded" >
17        <xs:complexType>
18          <xs:group ref="proteinG"/>
19        </xs:complexType>
20      </xs:element>
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24    <xs:sequence>
25      <xs:element name="Name" minOccurs="0">
26        <xs:complexType>
27          <xs:choice>
28            <xs:element name="fullName" type="xs:string"/>
29            <xs:element name="shortName" type="xs:string"/>
30          </xs:choice>
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32        </xs:complexType>
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35      <xs:element name="biotechName" type="xs:string"/>
36    </xs:sequence>
37  </xs:group>
38 </xs:schema>
  
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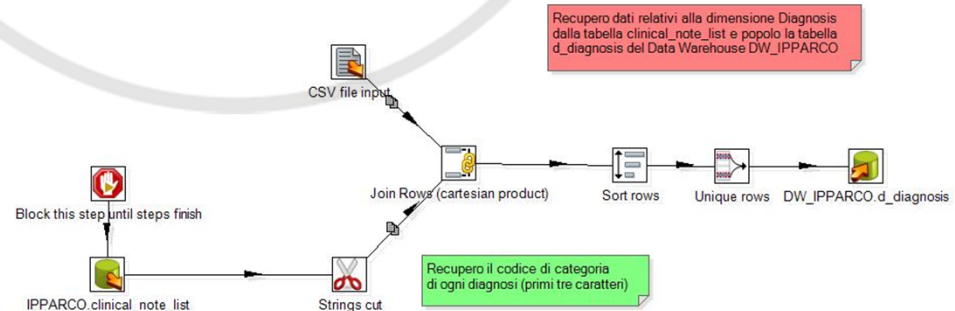
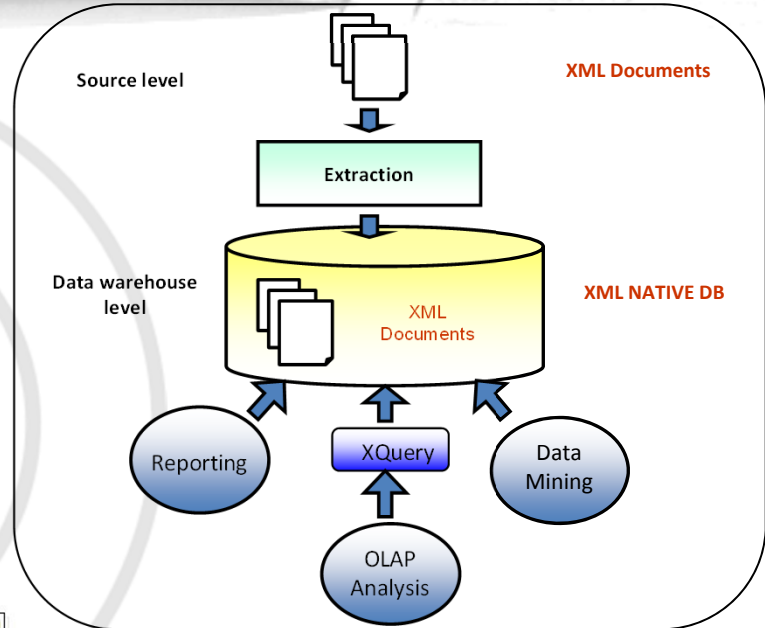
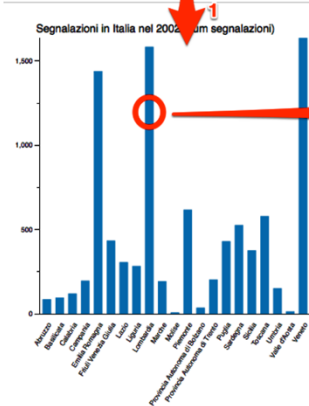
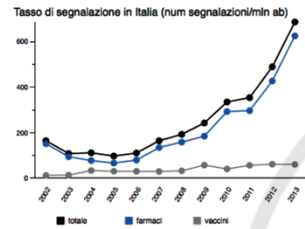
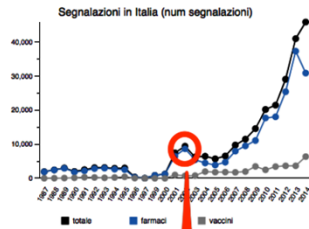
(prof_ref, stud_ref, cour_ref, stud_refs)





Data Warehousing techniques

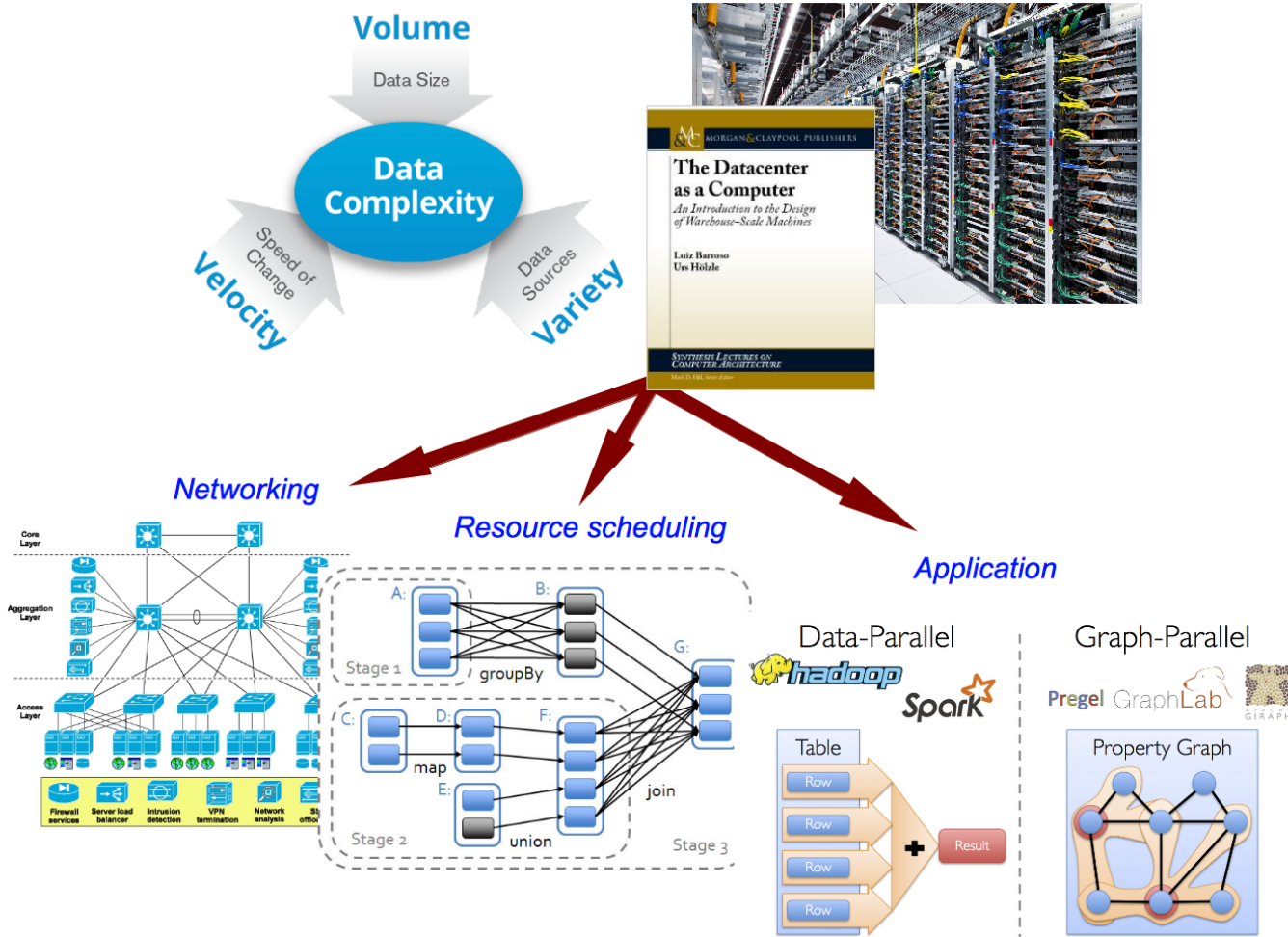
Combi, Mantovani, Oliboni, Sabaini, Sala





Data-intensive Computing Systems

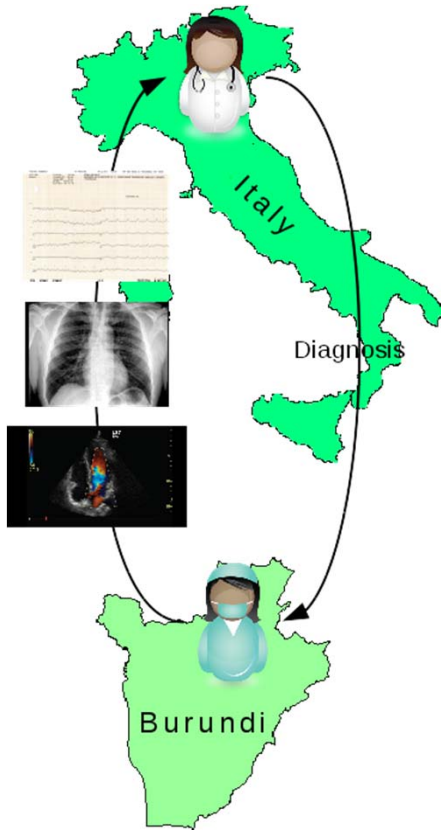
Carra





Main projects

Burundi



SITAVR

Pharmacovigilance



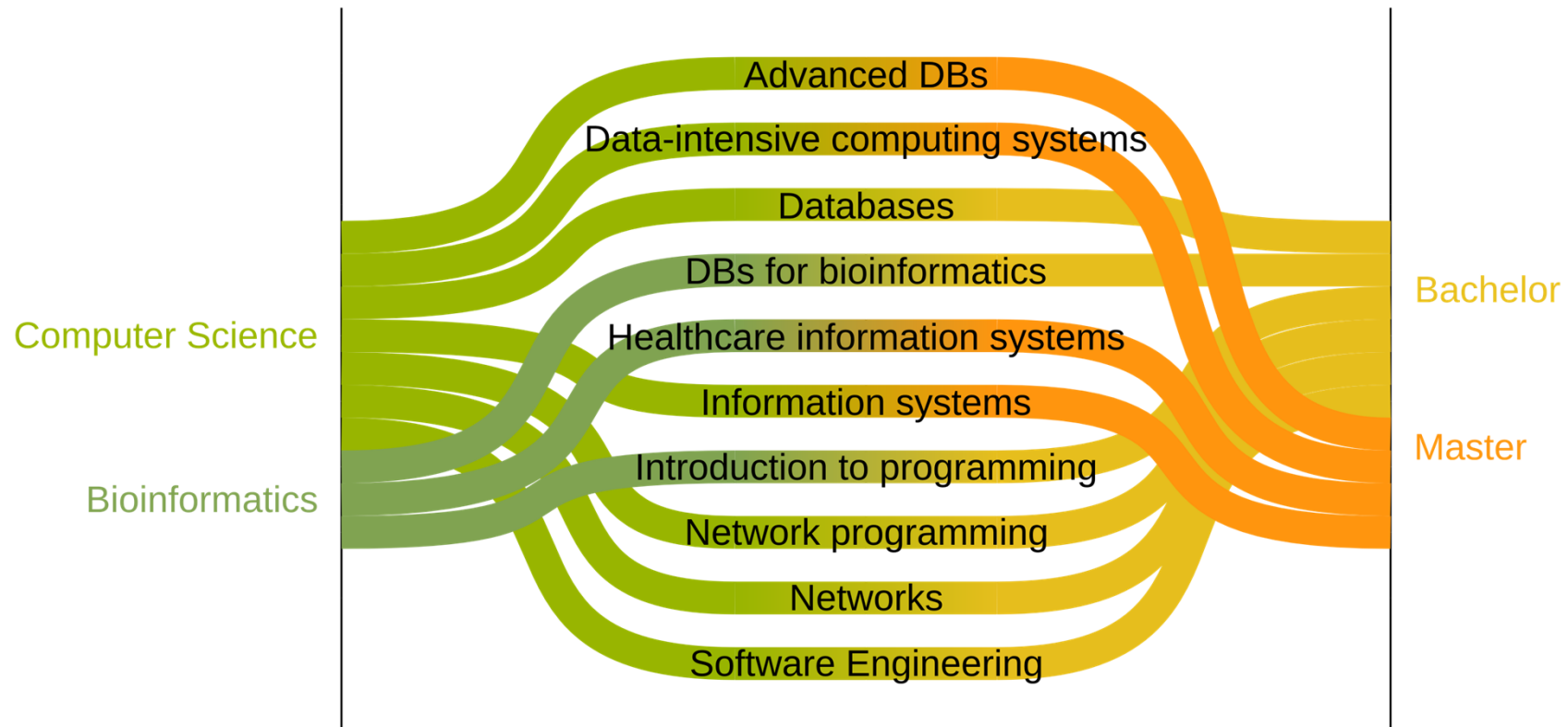


Collaborations



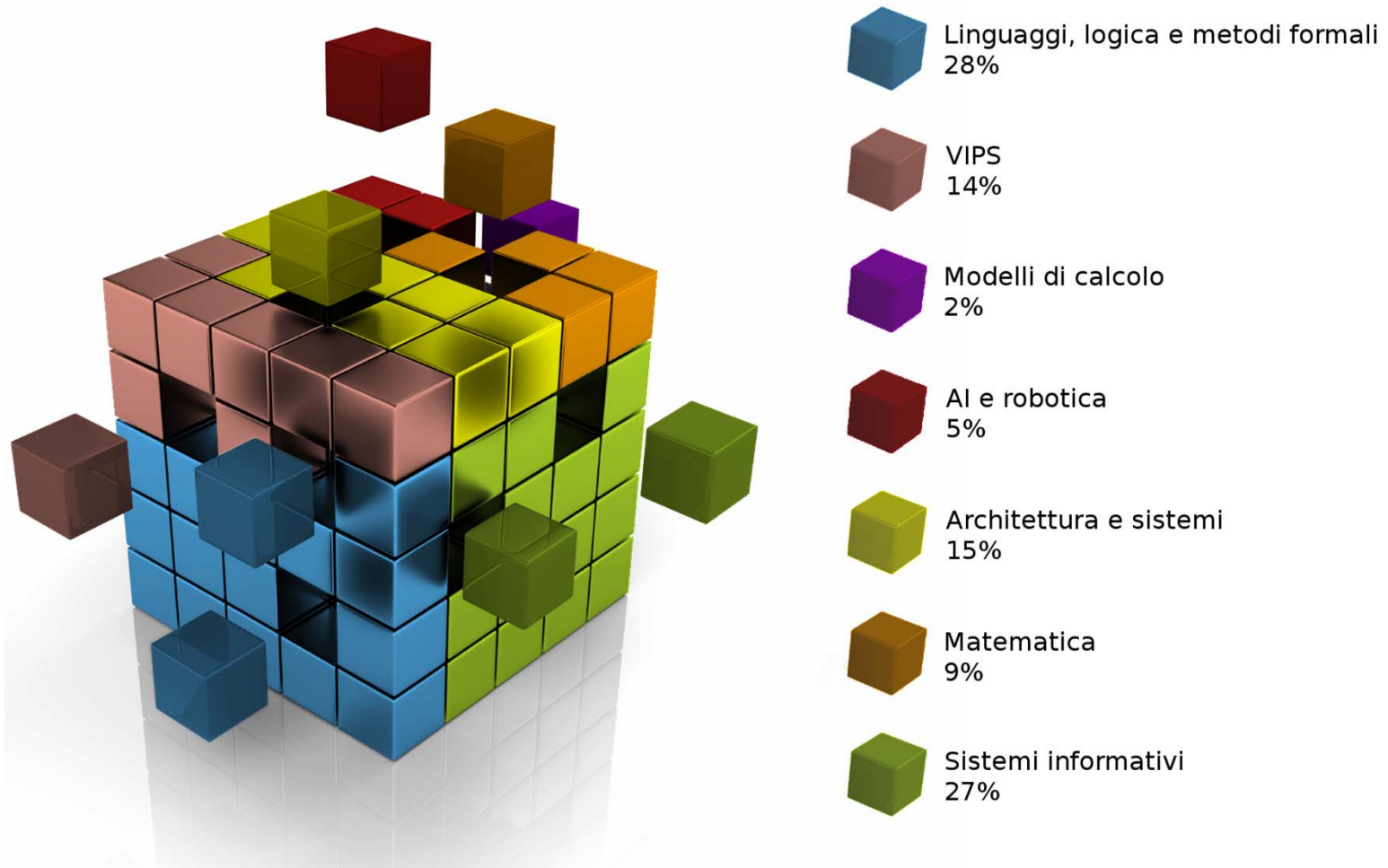


Provided courses





Theses





- The STARS lab is located at the floor -2 in Ca' Vignal 2.
- It's a lab where students collaborating with the group can develop their projects and theses.





Erasmus+

Erasmus in Spain: follow classes and work on thesis at the Faculty of Computer Science of the University of Murcia

<http://www.um.es/informatica/>

Several possible thesis topics about:

- Temporal and clinical information systems
- Temporal workflow

In collaboration with the AIKE lab (Artificial Intelligence and Knowledge Engineering)



