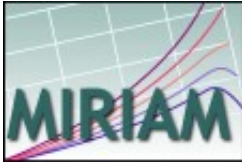
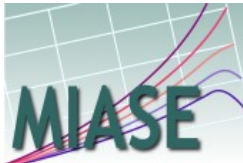










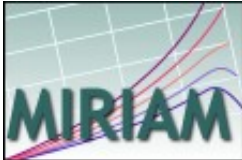
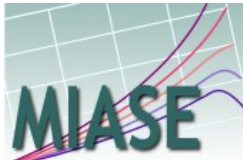






Models For All

Nicolas Le Novère

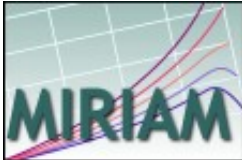
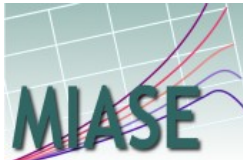






Characterising dynamical behaviours

	Models	Simulation	Results
Minimal requirements			
Data-models	 		(SBRML)
Ontologies			



Is the matrix of standards complete?

	Models	Simulation	Results
Minimal requirements			
Data-models	 		(SBRML)
Ontologies			

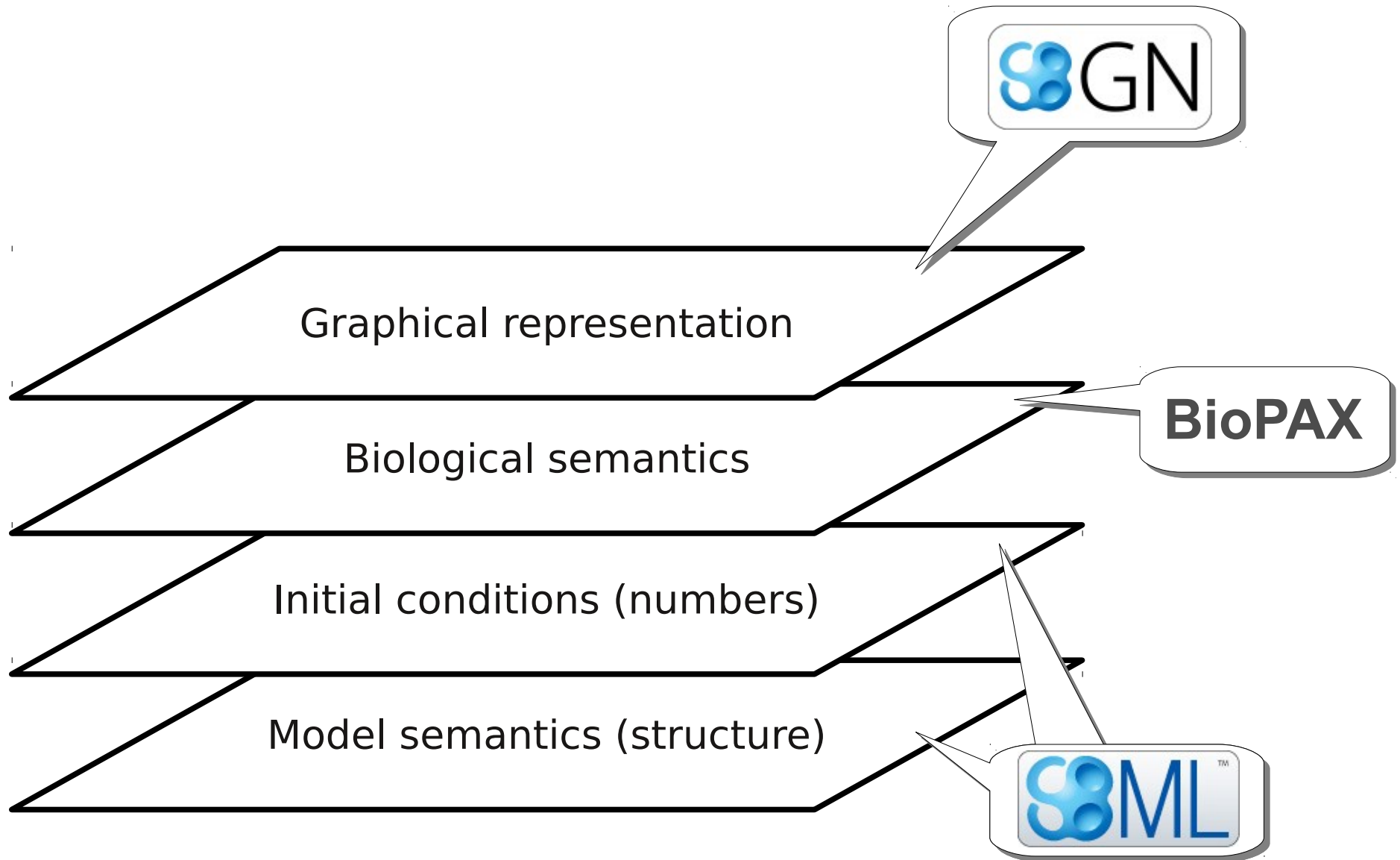
Is the matrix of standards complete?

	Models	Simulation	Results
Minimal requirements			
Data-models	 		SBRML
Ontologies			

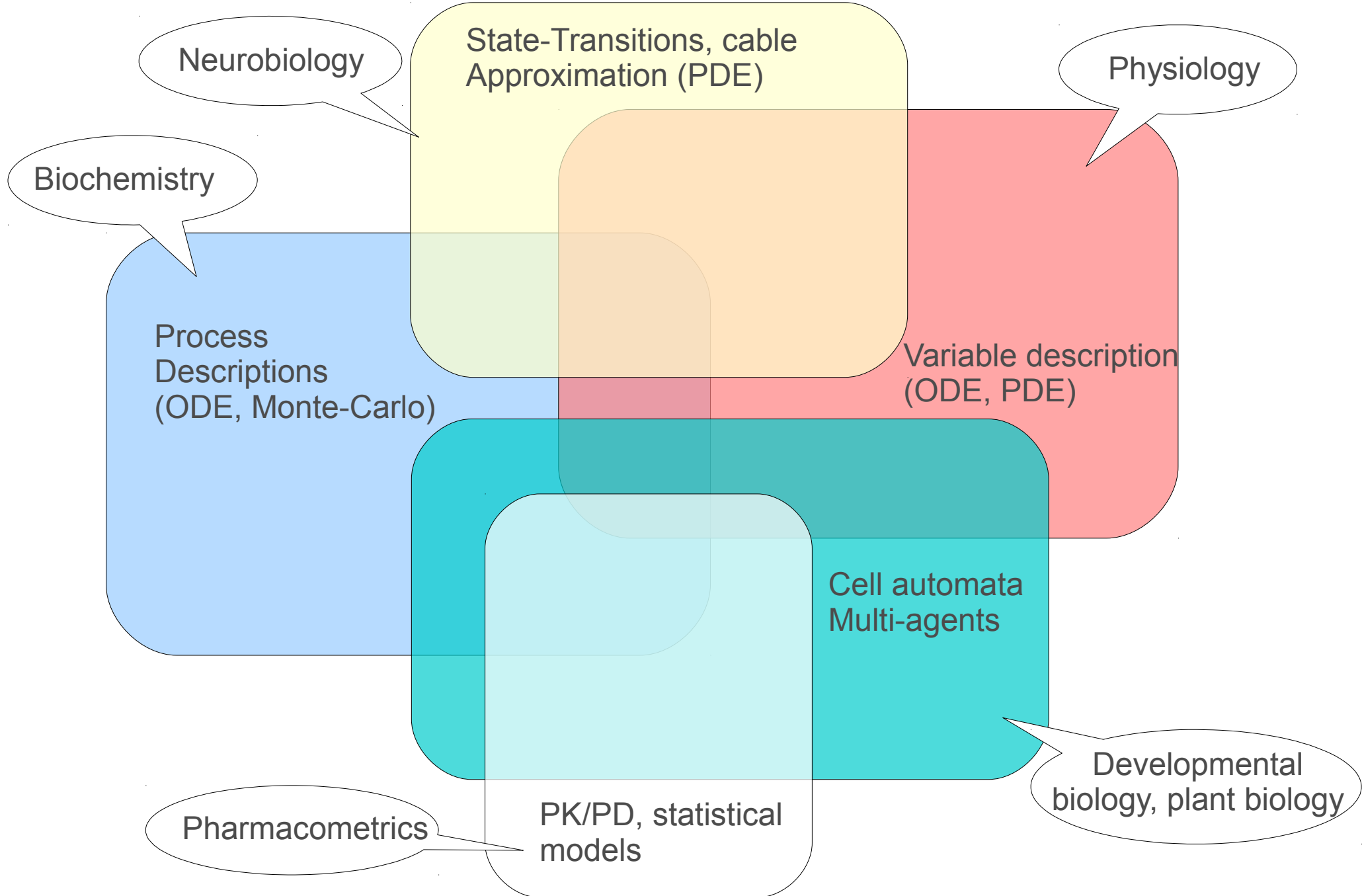
Disentangling the model life-cycle

Model generation	Model structure	Parametrisation	Simulation and analysis	Numerical results
?		?		SBRML

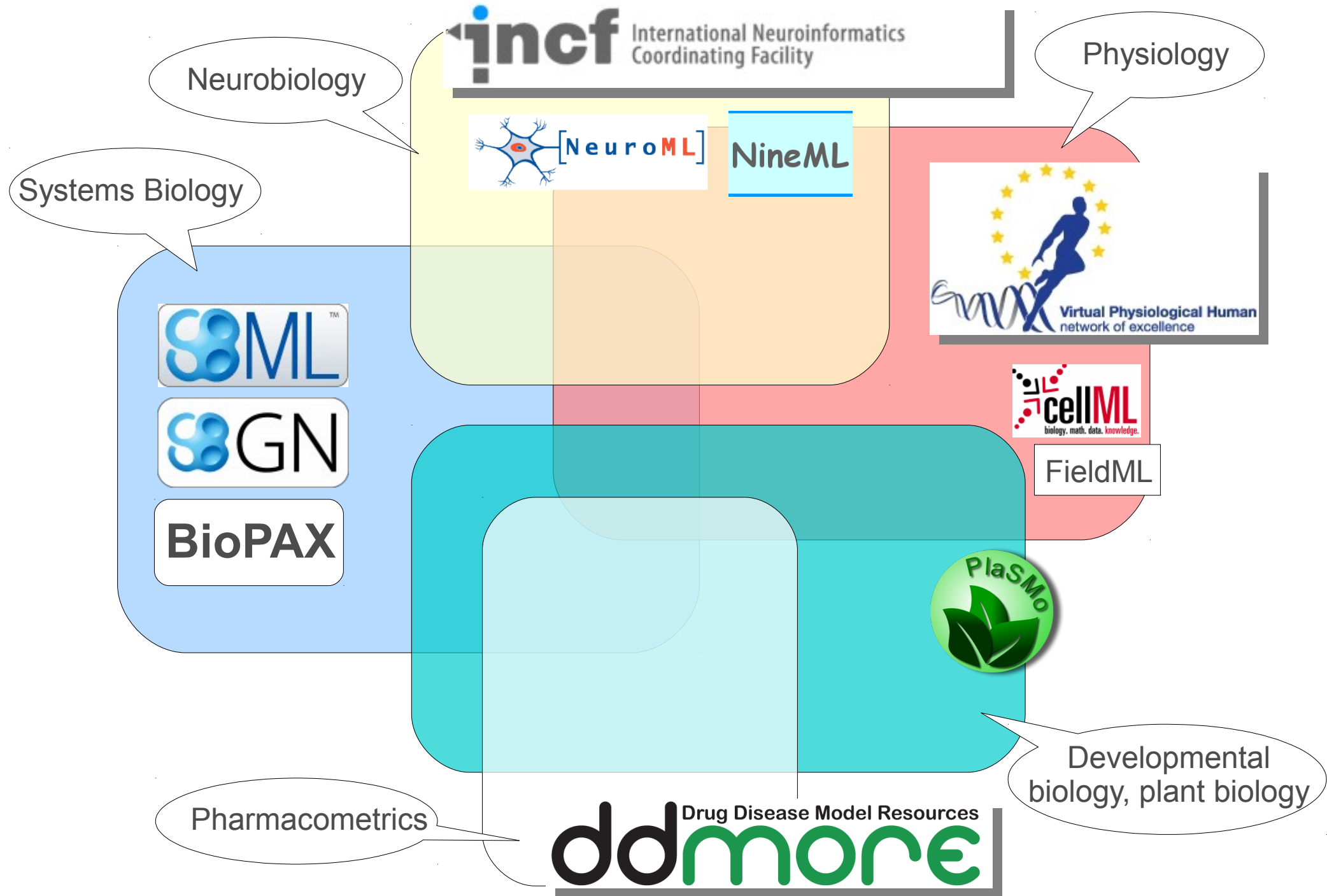
Disentangling the level of discourse



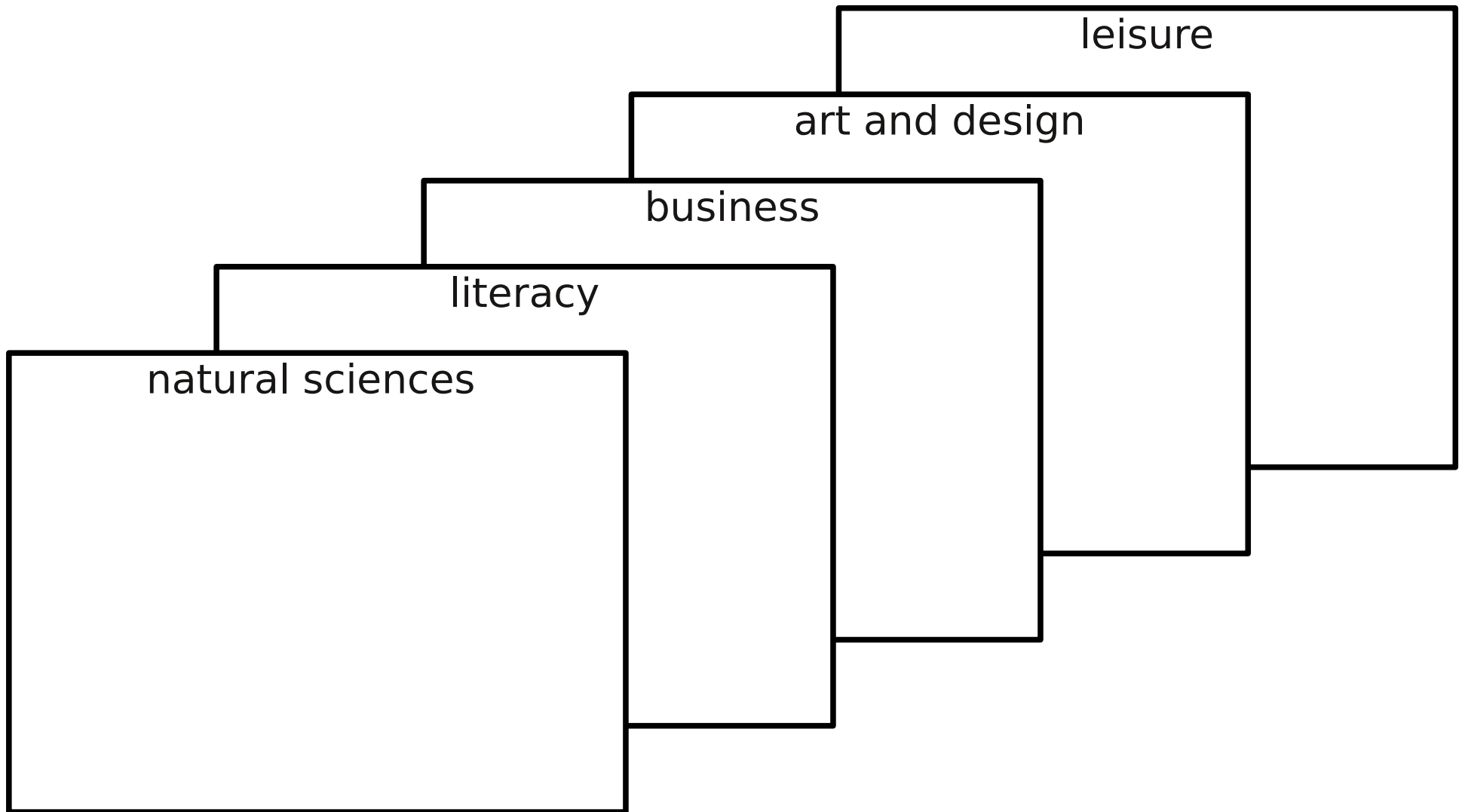
Many complementary modelling approaches



Parallel and redundant efforts



What if the world-wide web was built like this?





ABOUT W3C

The World Wide Web Consortium (W3C) is an international community where [Member organizations](#), a full-time staff, and the public work together to develop [Web standards](#). Led by Web inventor [Tim Berners-Lee](#) and CEO [Jeffrey Jaffe](#), W3C's mission is to lead the Web to its full potential. [Contact W3C](#) for more information.



W3C Mission

▶ Principles, vision, ...



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▶ People, organization, revenues, process, patent policy, history, ...



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▶ Press releases, requests for photos and interviews, ...



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▶ Support for W3C operations, validator service, ...



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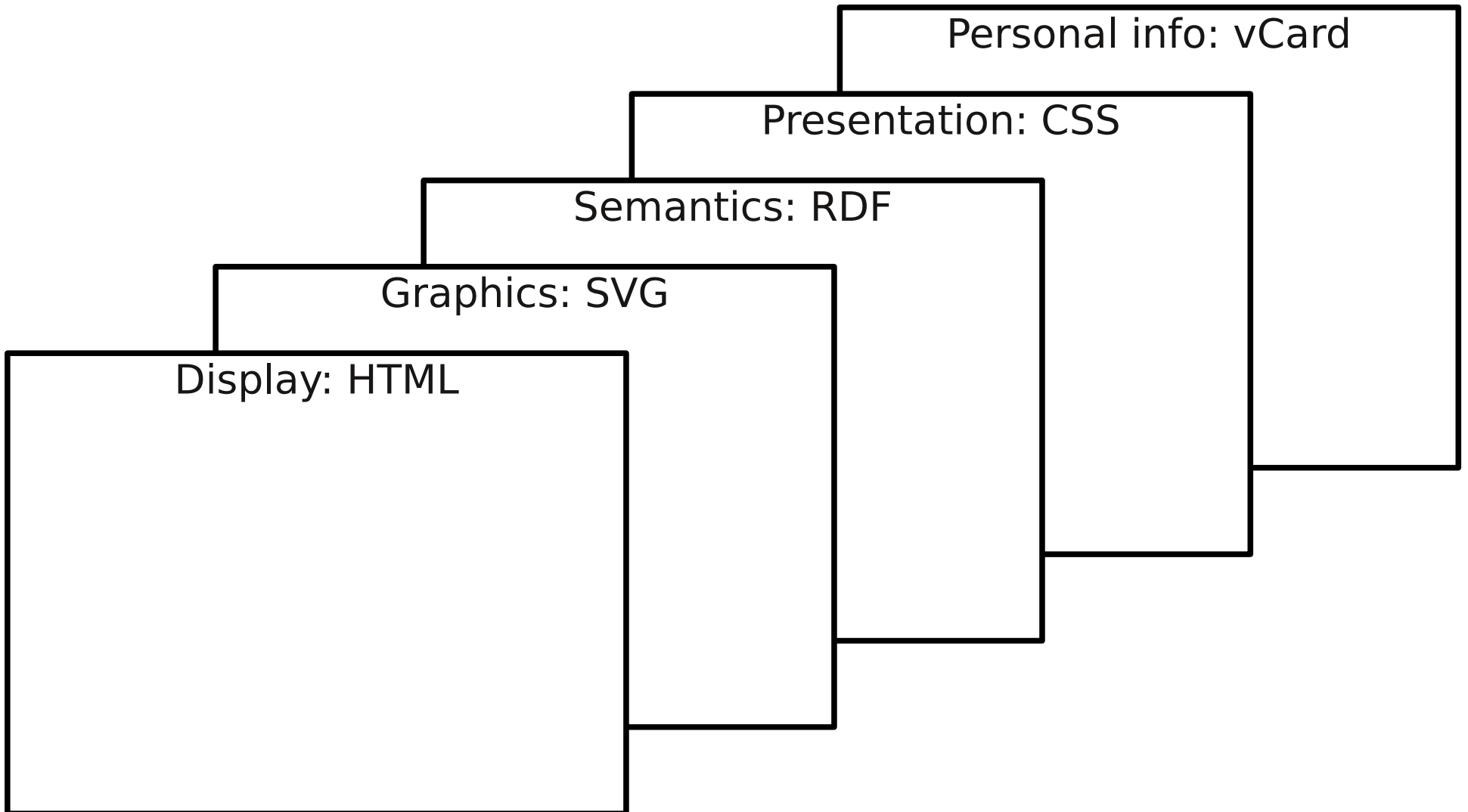
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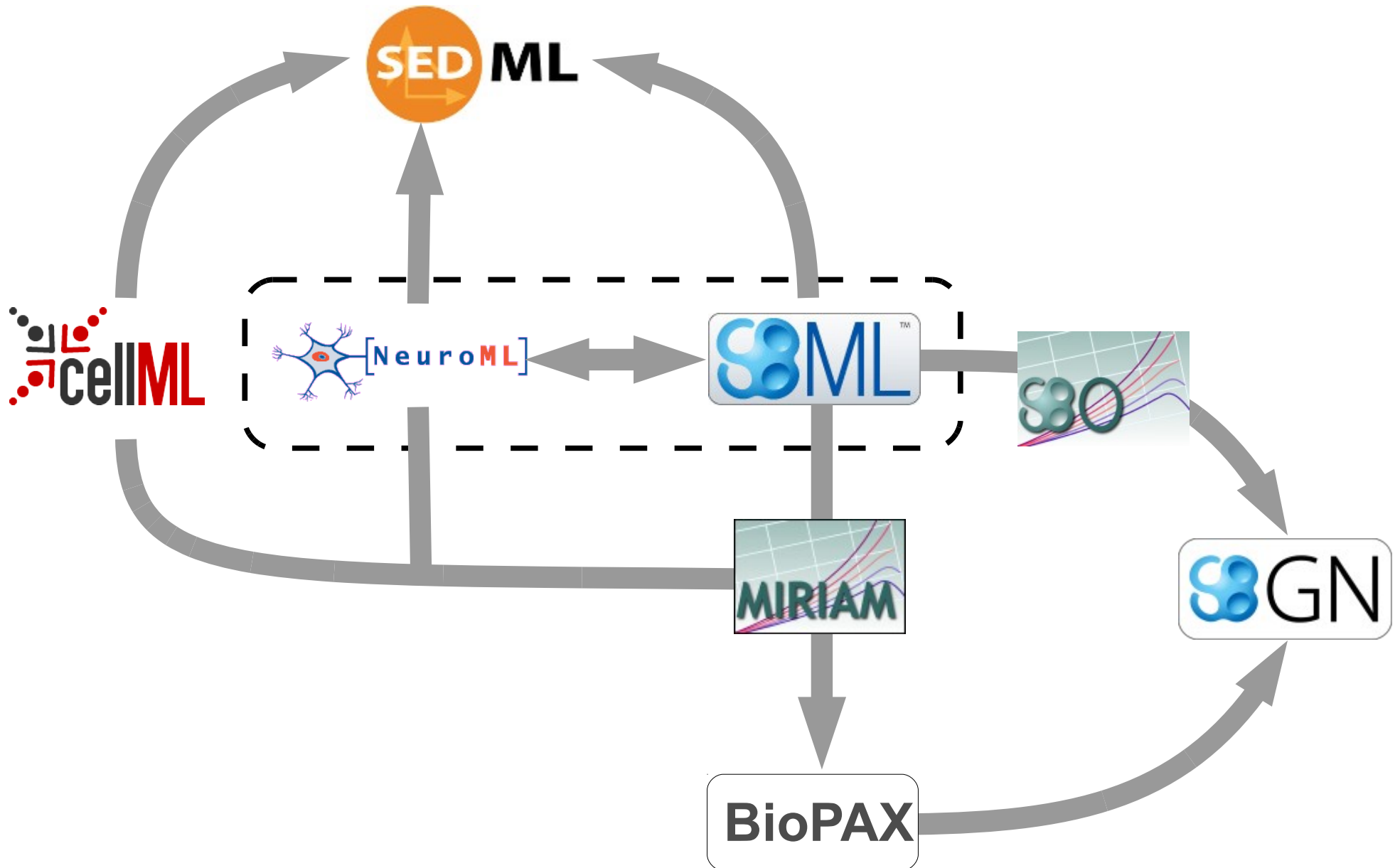
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The correct way to do it



Existing standards interoperability



Overarching standardisation structure



The “WorldWide Web consortium” of modelling in biology
<http://co.mbine.org/>

- **HARMONY 2011**
 - 18 to 22 April 2011, New-York
 - <http://www.biopax.org/harmony.php>
- **COMBINE 2011**
 - 3 to 7 September 2011, Heidelberg
 - http://co.mbine.org/events/COMBINE_2011
- **Standard Operating Procedures**
 - Technical requirements
 - Governance
- **Single voice**
 - Discussions with Industry
 - Financial support

HARMONY Vs COMBINE annual meeting?

- COMBINE annual meeting:
 - Presentation of results, tools, etc.
 - General discussion
 - Directed towards the general community, including end-users
- HARMONY
 - Implementation of software support, development of specifications
 - Technical discussions
 - Directed towards developers, editors, ultra-geeks
- Both cost a lot of money!!!
 - We need to demonstrate that they are productive
 - Paper(s) will be submitted to SIGS after the meeting

