NORMSYS

Heidelberg Institute for Theoretical Studies

Developing Application Standards for Systems Biology Modelling & Registry for Modelling Standards: Request for Requirements Input

Martin Golebiewski
Heidelberg Institute for Theoretical Studies
HITS gGmbH
Germany

HARMONY 2015, Wittenberg, 23 April 2015

Need for a meta-standard for standards

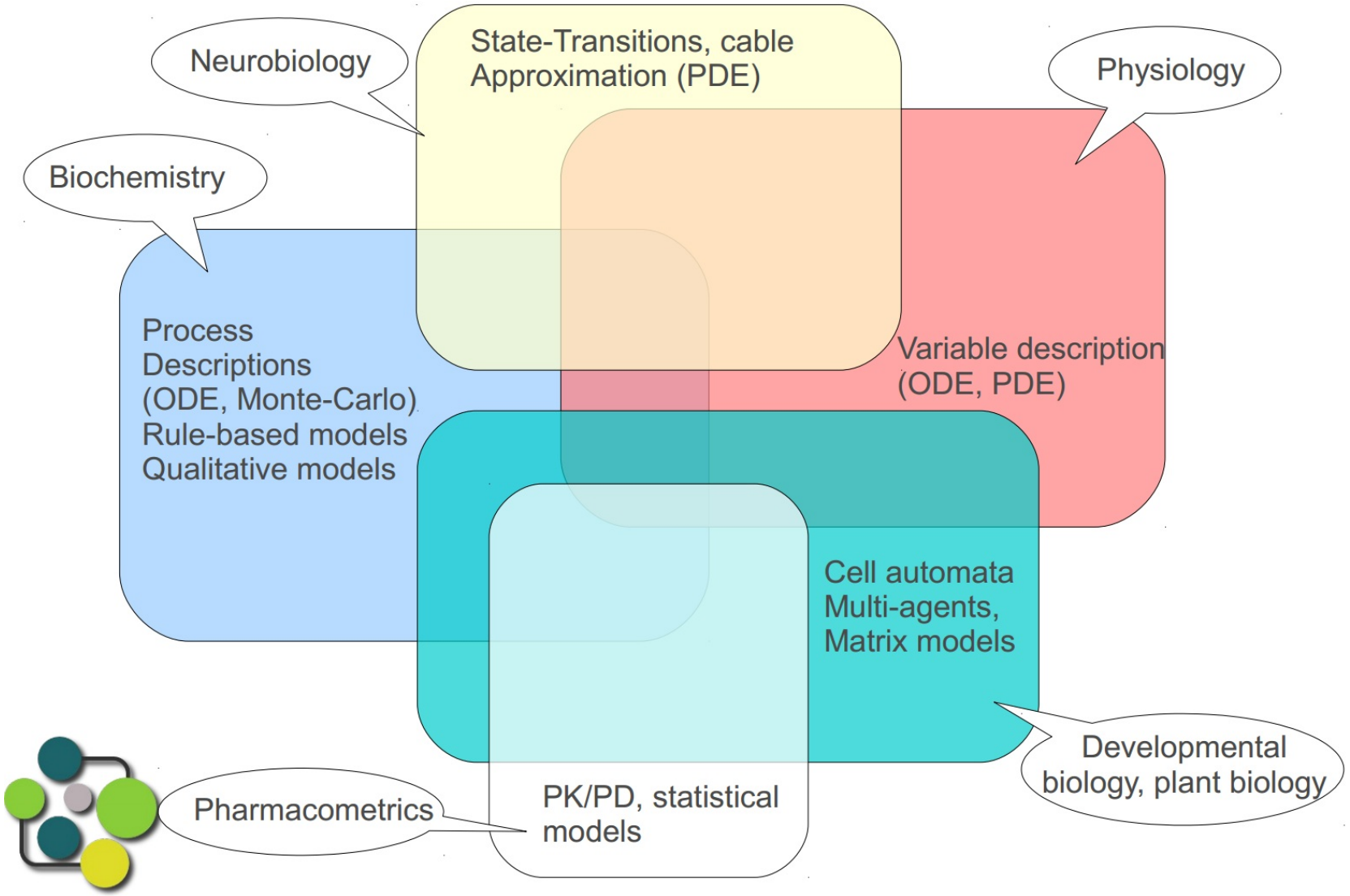
Example: Great Baltimore fire of 1904

Individual fire hydrants depending on region with 600 variations of hose couplings
→ Need for a standard for general interfaces

NORMSYS

HITS

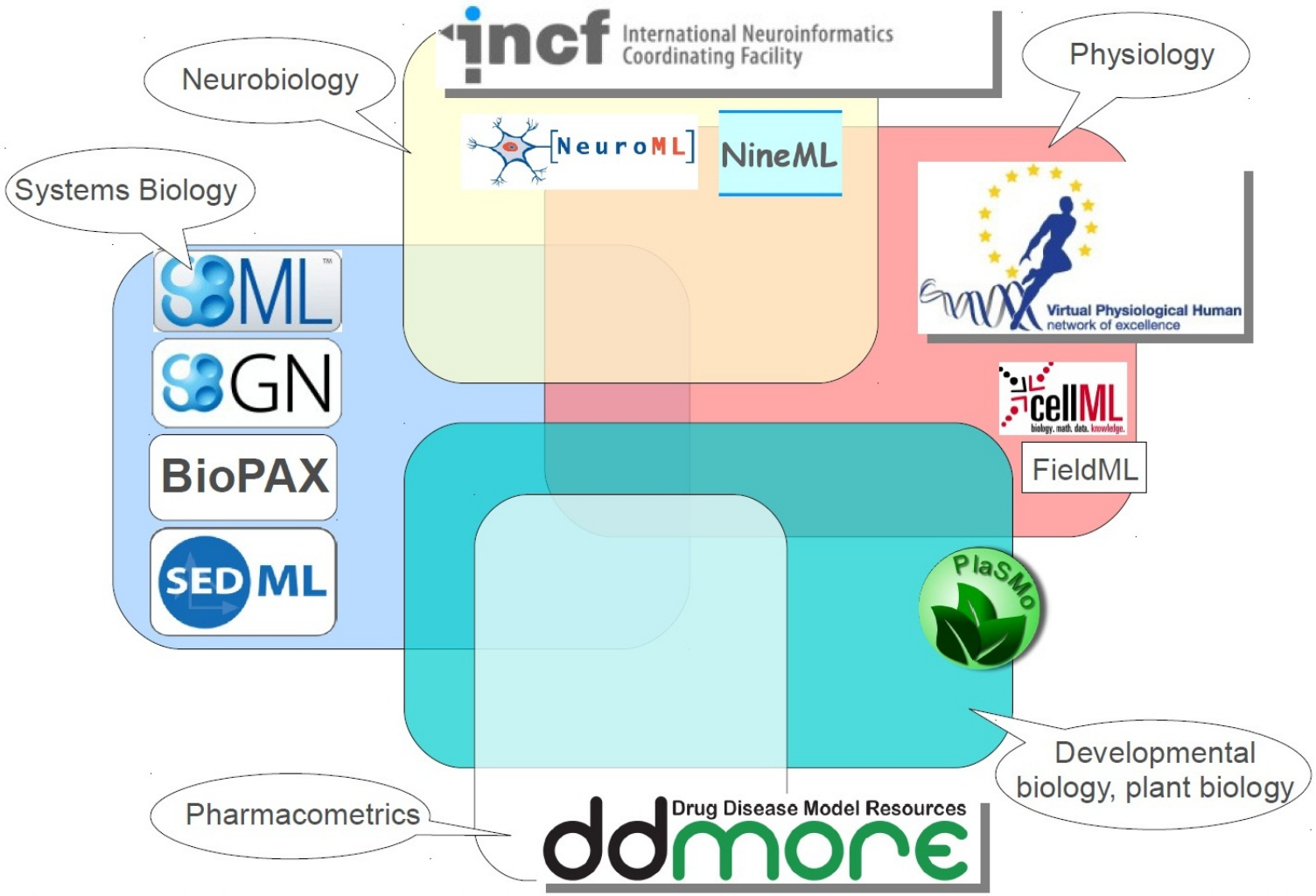
Modelling Approaches in Different Fields of Biology



NORMSYS

HITS

Community Modelling Standards in Different Fields



NORMSYS

HITS

NormSys

Building a Bridge

Research Communities
Develop and apply *de facto* community standards in grass-roots initiatives

Industries
Need certified standards

Standardisation Bodies

ASTM INTERNATIONAL

ISO

cen

DIN

ANSI

BSI British Standards

Help to distribute and promote standards

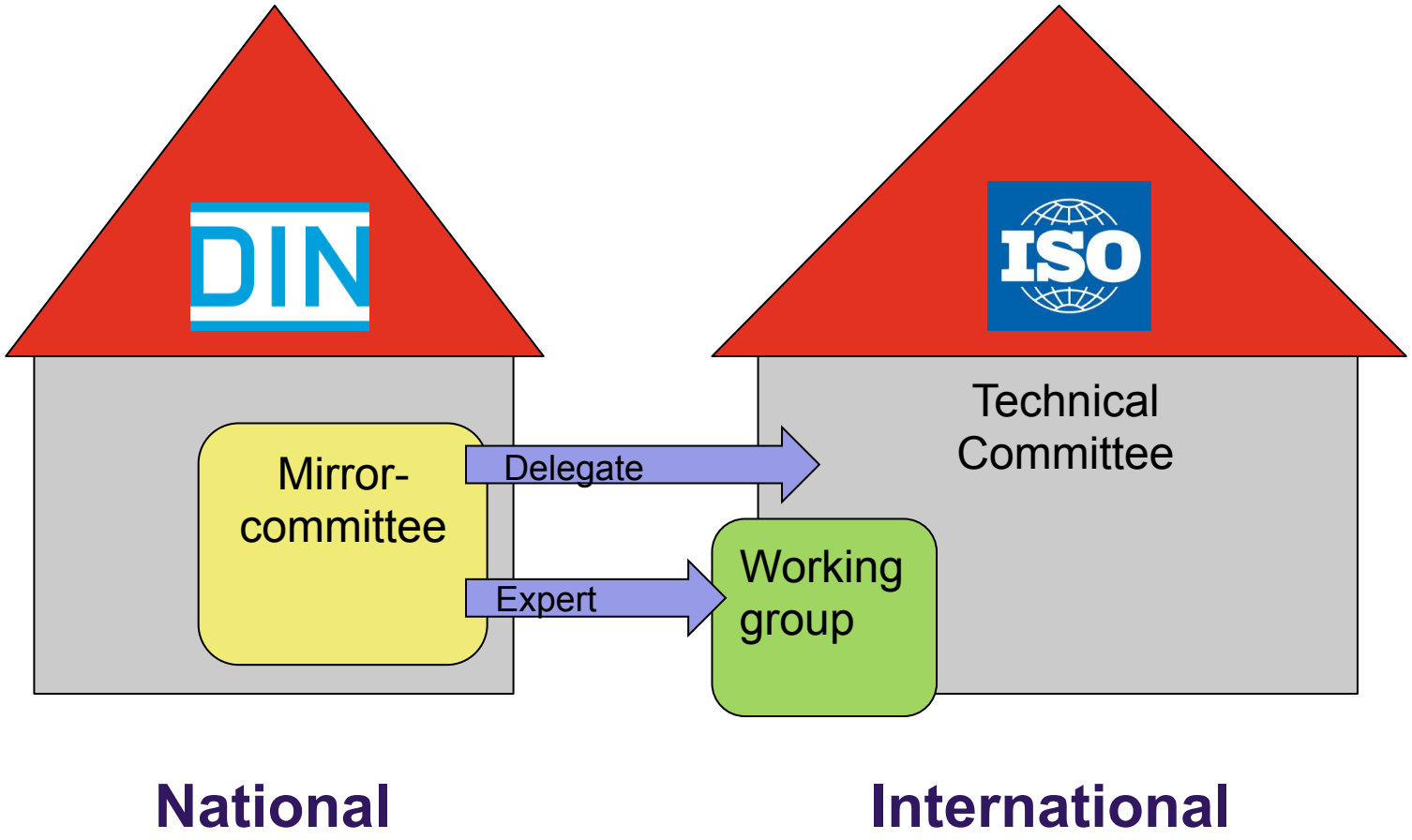
Supported by:
Federal Ministry for Economic Affairs and Energy

Standardisation Organizations

NORMSYS

HITS

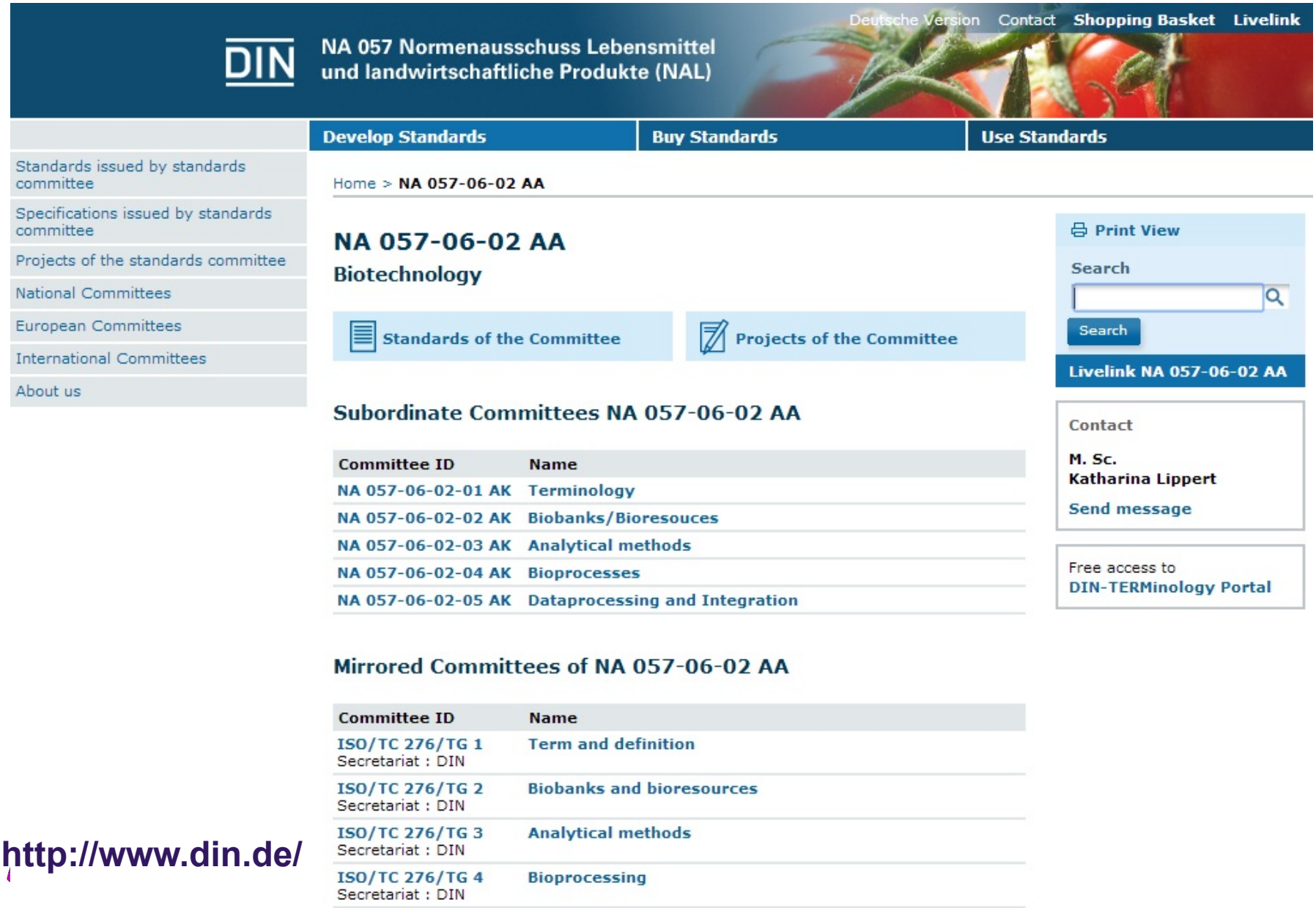
Standardisation Organisations: How do they work?



NORMSYS

HITS

Biotechnology Standardisation Committees



DIN NA 057 Normenausschuss Lebensmittel und landwirtschaftliche Produkte (NAL)

Deutsche Version Contact Shopping Basket Livelink

Develop Standards | Buy Standards | Use Standards

- Standards issued by standards committee
- Specifications issued by standards committee
- Projects of the standards committee
- National Committees
- European Committees
- International Committees
- About us

Home > NA 057-06-02 AA

NA 057-06-02 AA
Biotechnology

Standards of the Committee | Projects of the Committee

Subordinate Committees NA 057-06-02 AA

Committee ID	Name
NA 057-06-02-01 AK	Terminology
NA 057-06-02-02 AK	Biobanks/Bioresouces
NA 057-06-02-03 AK	Analytical methods
NA 057-06-02-04 AK	Bioprocesses
NA 057-06-02-05 AK	Dataprocessing and Integration

Mirrored Committees of NA 057-06-02 AA

Committee ID	Name
ISO/TC 276/TG 1 Secretariat : DIN	Term and definition
ISO/TC 276/TG 2 Secretariat : DIN	Biobanks and bioresources
ISO/TC 276/TG 3 Secretariat : DIN	Analytical methods
ISO/TC 276/TG 4 Secretariat : DIN	Bioprocessing

Print View

Search

Search

Livelink NA 057-06-02 AA

Contact

M. Sc.
Katharina Lippert

Send message

Free access to
DIN-TERMinology Portal

http://www.din.de/

ISO/TC 276 Biotechnology

About | Contact details | Structure | Liaisons | Meetings | Tools

Secretariat: DIN
Secretary: Mrs Lena Krieger
Chairperson: Mr Ricardo Gent until end 2019
ISO Central Secretariat contact: Mrs. Laura Mathew
Creation date: 2013

Scope:

Standardization in the field of biotechnology processes that includes the following topics:

- Terms and definitions;
- biobanks and bioresources;
- analytical methods;
- bioprocessing;
- data processing including annotation, analysis, validation, comparability and integration;
- metrology.

ISO/TC 276 Biotechnology will work closely with related committees in order to identify standardization needs and gaps, and collaborate with other organisations to avoid duplications and overlapping standardization activities.

The committee will not pursue subjects within the scope of other TCs including but not limited to ISO/TC 212 and ISO/TC 34/SC 16.

Total number of published ISO standards related to the TC and its SCs (number includes updates):	0
Participating countries:	22
Observing countries:	13

Quick links

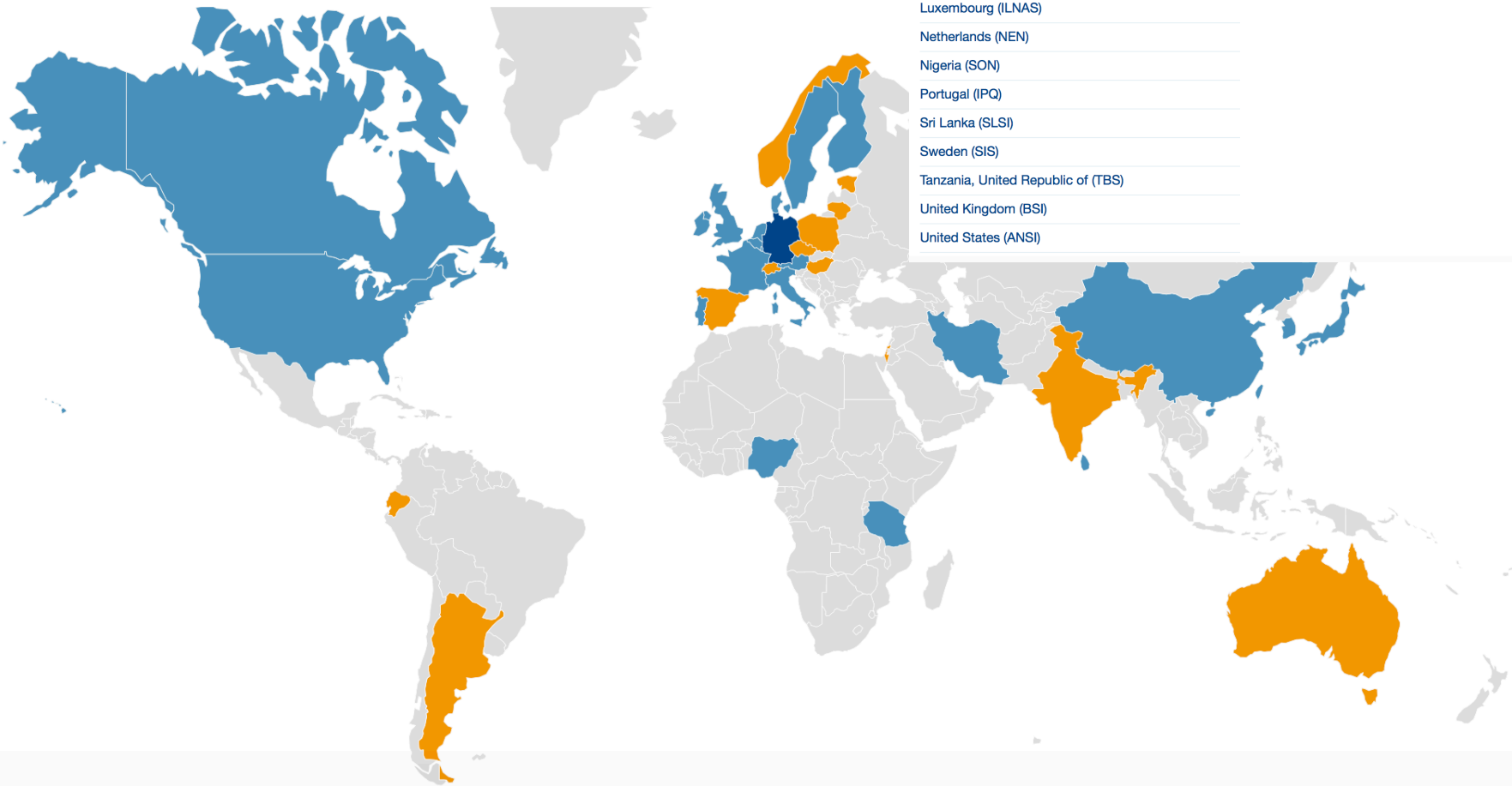
Work programme
(drafts and new work items of ISO/TC 276)

Business plans

Working area on ISOTC and Public information folder

http://www.iso.org/

ISO/TC 276 - Biotechnology



Participating Countries (22)

- Austria (ASI)
- Belgium (NBN)
- Canada (SCC)
- China (SAC)
- Denmark (DS)
- Finland (SFS)
- France (AFNOR)
- Germany (DIN)
- Iran, Islamic Republic of (ISIRI)
- Ireland (NSAI)
- Italy (UNI)
- Japan (JISC)
- Korea, Republic of (KATS)
- Luxembourg (ILNAS)
- Netherlands (NEN)
- Nigeria (SON)
- Portugal (IPQ)
- Sri Lanka (SLSI)
- Sweden (SIS)
- Tanzania, United Republic of (TBS)
- United Kingdom (BSI)
- United States (ANSI)

Observing Countries (13

- Argentina (IRAM)
- Australia (SA)
- Czech Republic (UNMZ)
- Ecuador (INEN)
- Estonia (EVS)
- Hungary (MSZT)
- India (BIS)
- Israel (SII)
- Lithuania (LST)
- Norway (SN)
- Poland (PKN)
- Spain (AENOR)
- Switzerland (SNV)

Developing an ISO standard for applying and connecting community modelling standards

Recommendations are needed for:

Formats (references to existing community standards) that are suitable for models and corresponding data for defined fields of application as guidelines for the users

→ Recommendations for a framework for the structured and coherent formatting and visualization of models and related data

What information is needed for efficient data integration?

→ References to minimal reporting guidelines for the metadata

How should models and data be **processed**?

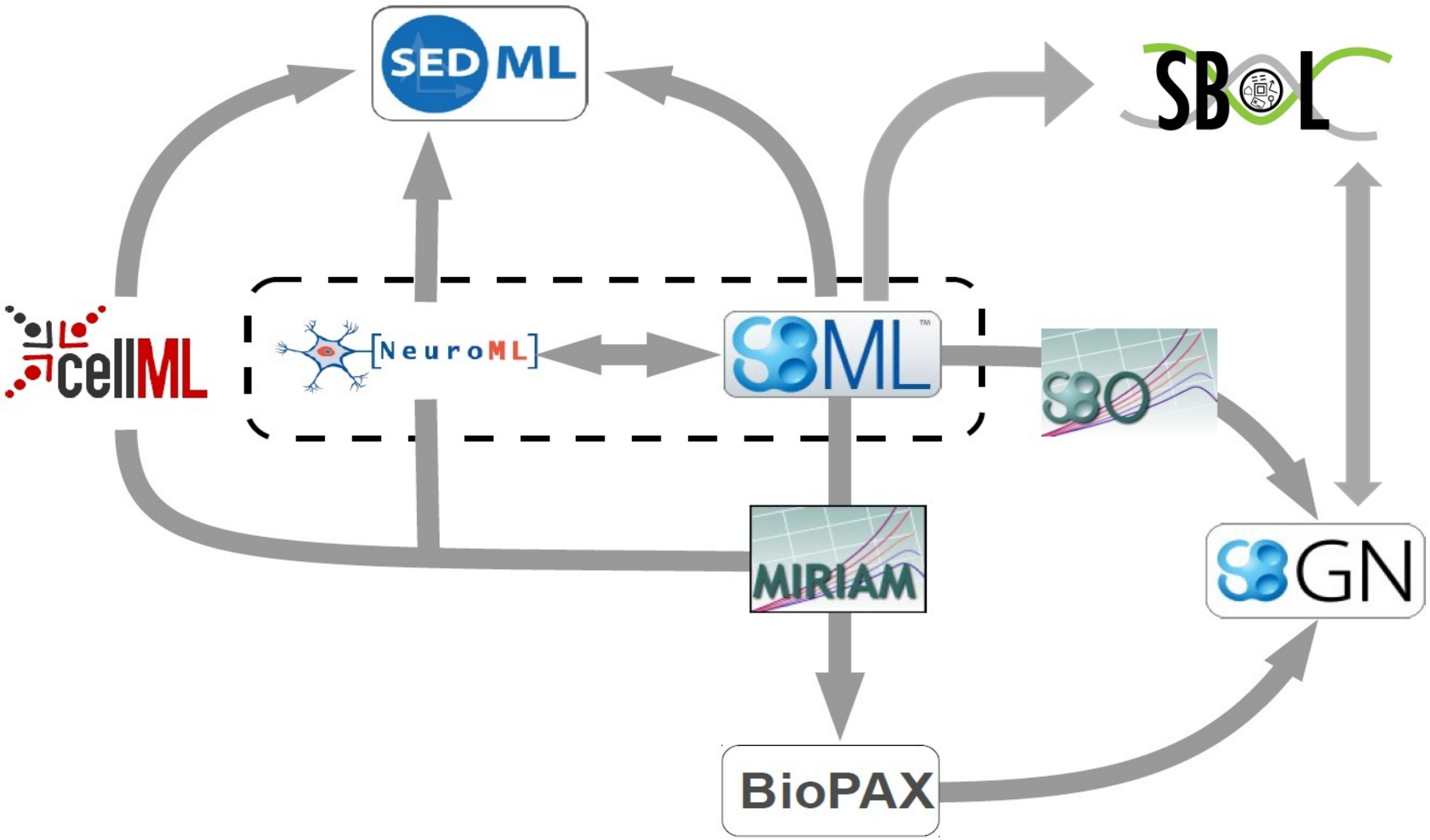
→ Standard workflows to create, format, describe, visualize and simulate biological computer models for defined fields of application

Interfacing between data, workflows and models

NORMSYS

HITS

Interfacing and Interoperability of Modelling Standards



NORMSYS

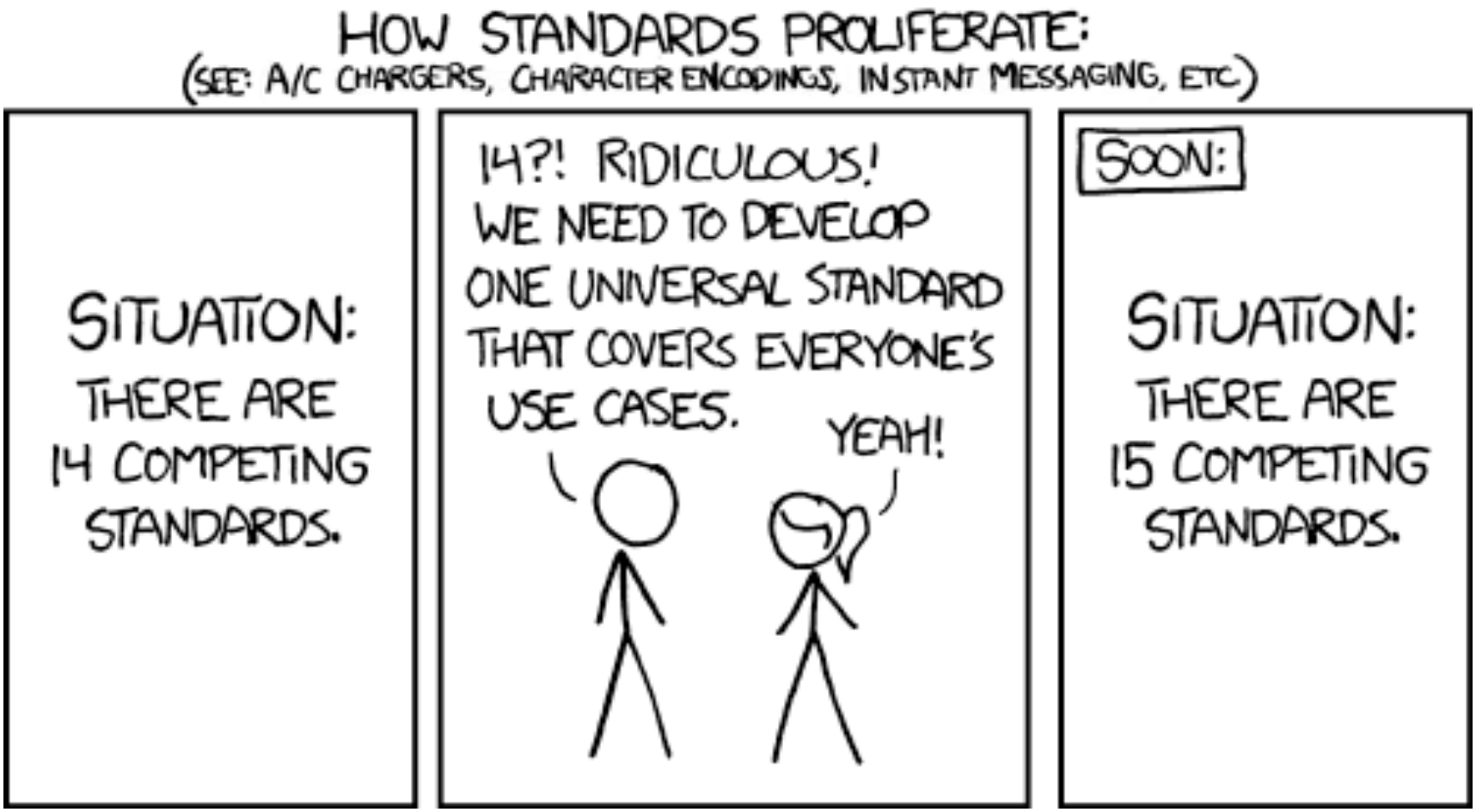
HITS

Registry for Modelling Standards

- Multi-dimensional matrix for describing existing modelling standards
- Classification of the standards according to their fields of application
- Synopsis of their major features and structure
- Description of interfacing options between the standards:
  - „Minimal information for interfacing“
  - General data format for information exchange between standards
  - Format of interfacing
- Initially for COMBINE standards, but also referring to other efforts

NORMSYS

HITS



NORMSYS

HITS