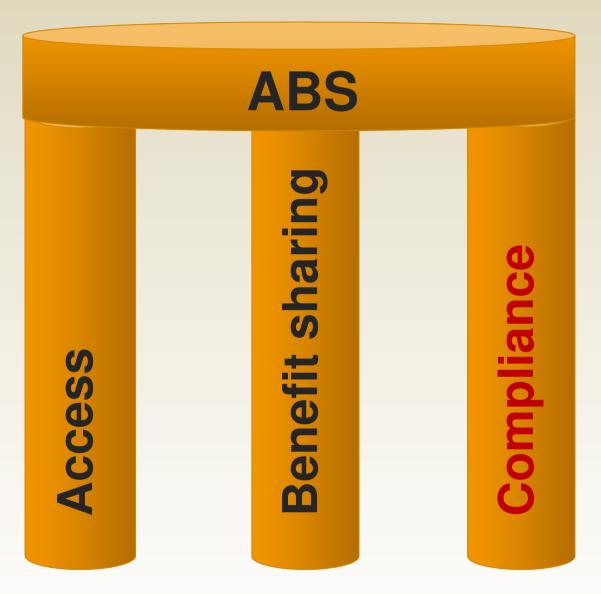
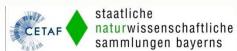
Transfer of specimens under the Nagoya Protocol & ABS

- 1. Legal Background
- 2. Due Diligence and Compliance
- 3. Challenges
- 4. Opportunities
- 5. Homework to do



1. Legal Background The three Pillars of ABS





1. Legal Background

ABS in Theory

Access



States (also within EU) may regulate access to their genetic resources

→ National Legislation



Get permission (PIC, prior informed consent) from the competent national authority

Benefit-Sharing



Users must agreewith providers about
Benefit-Sharing

→ Mutually agreed terms (MAT)



Record and abide by the provisions of the MAT, and share benefits Compliance



States must ensure that users comply with the Nagoya Protocol

→ EU Regulation



Fulfill due diligence
obligations e.g
under EU
Regulation

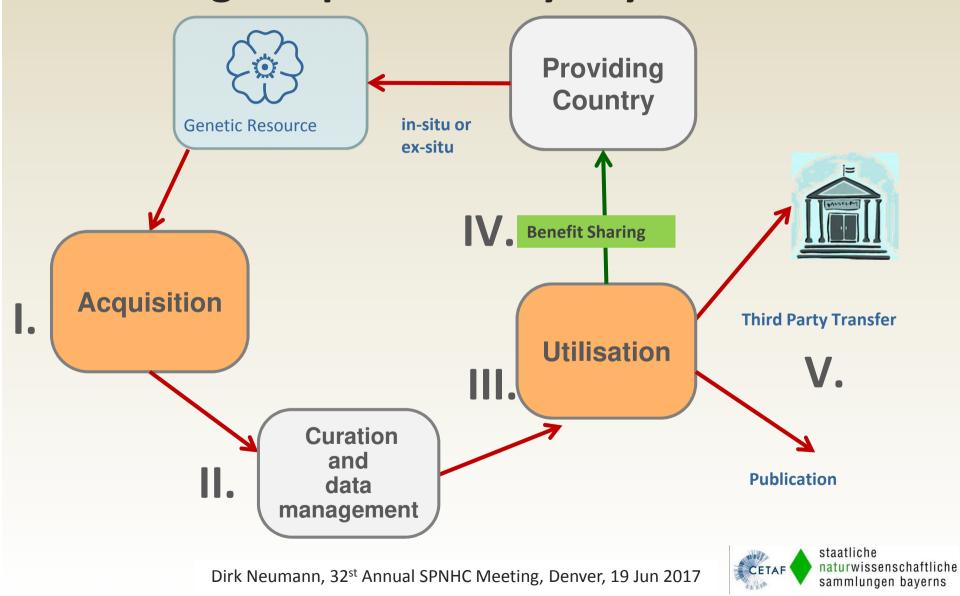


2. Due Diligence and Compliance Has been good practice anyway

- 1. Legal compliance. You have comply with all legal requirements (as per current legislation).
- 2. Contractual agreements. You already negotiate access with providing countries. Now, you need to follow the documentation requirements.
- **3.** Reputational conditions. The benefit sharing has been done for decades; it is already an implemented practice for researchers (on non-monetary basis).



2. Due Diligence and Compliance Has been good practice anyway



2. Due Diligence and Compliance Has been good practice anyway

Why then a Code of Conduct and Best Practice?

- 1. To **support management** in the context of ABS
- 2. To **reduce risks** associated with ABS:
 - legal non compliance (with EU No. 511/2014)
 - contract (permit conditions) management
 - reputational risk



- § Due Diligence is now a requirement
- § Permit management system is required
- § Use and Users need to be recorded



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 - ! A "User" can be internal staff, external guests/visitors/PhD students, etc.
 - ! Utilisation may happen inside or outside the institution



3. Challenges – practical management

1. Responsibilities of the Institution.

- ✓ relevant ABS data is recorded independent of individual persons
- ✓ relevant ABS data is documented independent of individual computers
- ✓ the linkage of relevant ABS data and specimens and all parts or derivatives thereof is kept persistently all points

2. Responsibilities of curators/registrars.

- ✓ foresightful project planning
- ✓ support centralised record keeping of ABS relevant documents and data
- ✓ respect due diligence obligations (no illegal utilisation)
- ✓ respect reporting obligation when projects terminate
- ✓ respect and support benefit sharing obligations



3. Challenges – practical management

3. Responsibilities of ABS representatives of the Institution.

- ✓ support functioning of internal institutional check-points
- ✓ support and enhance internal procedures and record keeping
- ✓ support curators and research during negotiations with Providers
- ✓ support curators and research to meet their due diligence obligations
- ✓ check compliance with relevant ABS obligations resulting from ABS contracts



Does this sound familiar to you?

- ✓ Who is the responsible contact person
- ✓ Where do I find the samples
- ✓ Where do I find the respective data and documents:
 - File copies of relevant ABS-documents
 - Databases with sample data (sample ID, point of accession, date of accession, user, date of utilisation) and respective ABS access data (permits, notifications, emails, etc.)



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Due Diligence Obligations Art 4 (1) (EU) No 511/2014



All this – has nothing to do with ABS in the first place

but it requires to establish well curated biorepositories

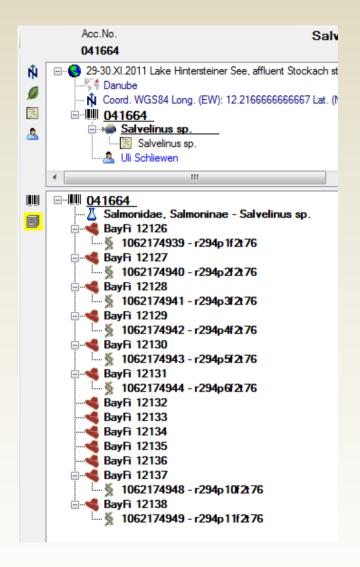
AND

sophisticated permit management systems











The CETAF process

2012-2013

Working Group set up

Working Group develops draft document package

Sep 2013

Circulated to membership for comment

May 2014

CoC approved by CETAF General Meeting

2015

Best Practice approved by CETAF General Meeting

Jan 2016

Package submitted to EU Commission for Recognition

Nov 2016

Re-submission to EU Commission for Recognition

Apr – Nov 2017

finally acknowledged



CETAF Tools to manage ABS

- Code of Conduct on Access & Benefit-Sharing
 - ✓ The agreed principles by which we govern our activities

2. Best Practice

✓ The way in which we implement those principles, including recommendations for policies and processes.

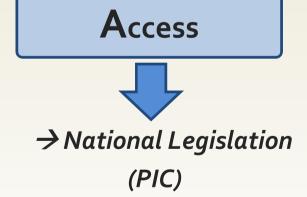
(http://cetaf.org/sites/default/files/final cetaf abs coc.pdf)



Finally acknowledged CETAF CoC & BP

Officially recognised principles how European Natural History Collections handle ABS obligations by EU Com









→ Mutually agreed terms (MAT)

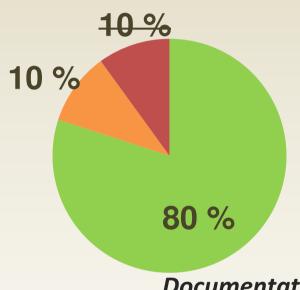
Compliance



- → EU Regulation
- 1. Documentation
- 2. Reporting



Finally acknowledged CETAF CoC & BP



Documentation

- √ of provenance (80%)
- ≈ of permits (PIC & MAT) (10%)
- § reporting towards Providers
- reporting under EU law (10%)



Compliance



- → EU Regulation
- **Documentation**
- 2. Reporting under **EU ABS law**



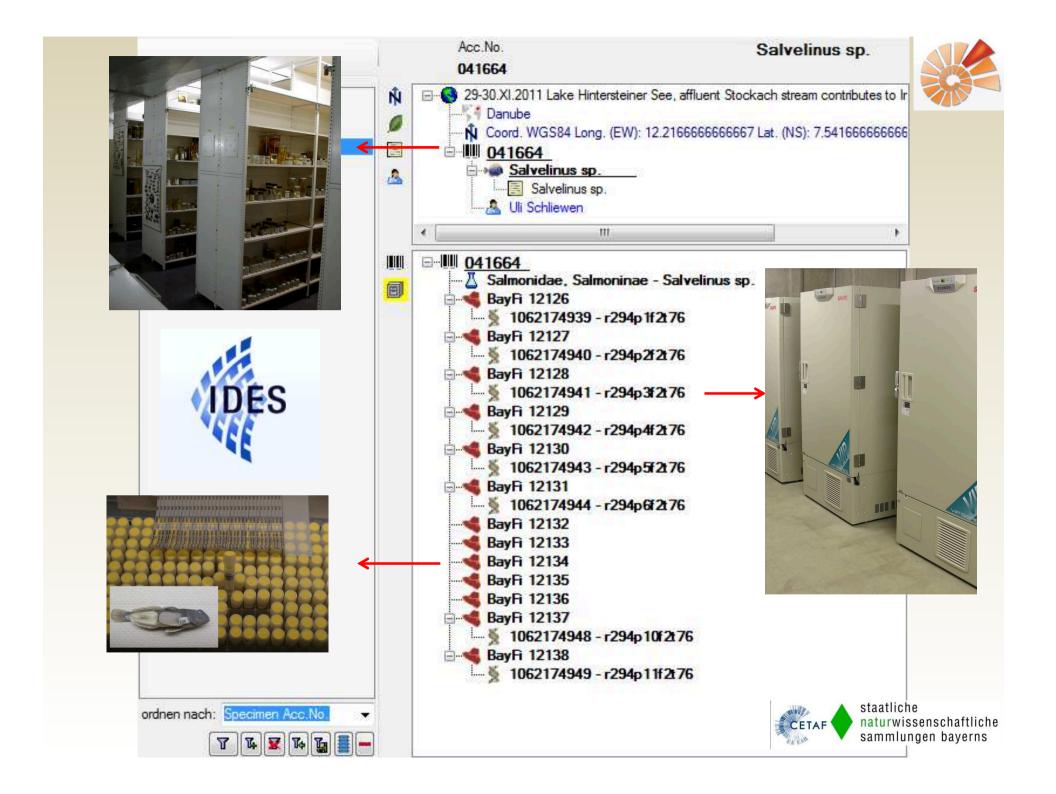
5. Homework to do

1. Establish standardised procedures for

- ✓ project proposals (check point)
- ✓ travel applications (check point)
- √ acquisition of biological material (check point)
- ✓ utilisation of GR inside the institution (check point)
- ✓ transfer of biological material (MTA)
- ✓ DNA-storage facilities (ecord utilisation and storage of utilised samples)
- ✓ guest researchers bringing materials into the institution
- ✓ the documentation of shared benefits (check point)



Arbeitsablauf DNA-Extraktion & Einlagerung in der ZSM / Extraktionen in der ZSM: **AIM GmbH DNA-Storage** Leitung: Direktion i.G.interne Auftrags-Kuratoren, Doktoranden & Gäste Durchführung: Ch. Laibl / D. Neumann sequenzierungen Information über Abzabe von ZSM-Proben an externe Forscher externe Proben / Gäste erstellen MTAs für Excel-Liste MTA 1/2 & externes / Gast-Material (BOLD/GBOL) Excel-Liste mit Daten an wird mit Probenvorbereitung: Sektonen erstellt (96er oder Einzelmaßstab): Angebotsvollständig ausgefüllte Extraktionsliste anfrage 2 Formate: BOLD / ZSM-Excel-Listen Dokumentation der Abgabe update Diversity-Import der vollständigen Probendaten: Angebot komplette Sammeldaten (inkl. eindeutigen komplette Daten Extraktion Plate/stripe IDs] Proben IDs (Plate/ stripe) IDs & ABS-Update Datenbank Einzelproben sektions welse Extraktions-Kits oder CTAB sortieren [AIM: Kit1: Qiagen DNeasy Kit2: PAALL-Platte Kit3: KingFisher Flex / Beat-Kit] Abgabe Scan-Racks Eluation (1 oder mehrere Schritte): Verbrauch für Analyse max. 100% des Volumens Einlagerung aller Restmengen und evtl. Aliquots in DNA-Storage Unit [AIM: 2-5 µ für PCR-Verbrauch, ca. 150 µl für Einlagerung; AIM lagert Extrakte max. 30 Arbei tstag e DNA-Einlagerung: Restliche DNA DNA-Aliquot 2-5 µl - Restvolumina & Aliquots molekulargenetische Analyse (Platten od er Einzelpro ben -geg. Umbetten & Eindampfen molekulargenetische Analyse Archivierung der Sequenzdaten: Sequenzauswertung Sequenz-Rohdaten (uneditiert) und editieren der TRACE Sequenzdaten & Alignment Alignments & DNA-Libraries / FASTA-Datelen [eindeutig referenzierte Proben-IDs bzw. Übemahme der AIM-Dateinamen) AUFRÄUMEN der Labor-Freezer & Kühlschränke nach Projektende: Einlagem / Vemichten von Restproben staatliche Reporting Obligation: Sorgfaltspflichterklärung / Projektende Vernichten der Restproben naturwissenschaftliche (nach 30 Arbeitstagen) 20 Jahres Frist nach Ende Nutzung update Benefit-Sharing / SNSB Publikation (Genbank / BOLD / EMBL, etc.) sammlungen bayerns - ABS-Vereinbarung Herkunftsland



5. Homework to do

Curation & Management

- \rightarrow How many people know this order ?
- → How many people can access these specimens?
- → How many sections are involved here?

Scenario (maybe a drastic one):



https://upload.wikimedia.org/wikipedia/commons/4/4a/Verkehrsunfall_Moers_A40_1.JPG





5. Homework to do

1. Establish clear structures and responsibilities:

- ✓ nominate ABS representatives
- ✓ designate persons which supervise ABS responsibilities of the institution
- ✓ establish close linkage between staff (temporary & permanent) & projects <u>AND</u> collections
- ✓ develop procedures for and supervision of the DNA-lab
- ✓ establish common workflows in the DNA-lab
 - for projects, internal/external students, PhDs, etc.
- ✓ establish coherent data structures
 - for projects, internal/external students, PhDs, etc.
 - design & syntax of Excel lists, databases etc.
- ✓ establish coherent workflows for DNA collections





ABS working group

Chris Lyal, (ass. to) The Natural History Museum, London, Great Britain

Ana Casino, Consortium of European Taxonomic Facilities (CETAF)

c/o Ryal Belgian Institute of Natural Sciences, Brussels, Belgium

Johan Bodegård, Swedish Museum of Natural History, Stockholm, Sweden

Peter Giere, Museum für Naturkunde Berlin, Berlin, Germany

Lars-Erik Johannessen, Natural History Museum Oslo, Norway

Dirk Neumann, Bavarian State Collection of Zoology, München, Germany

Anne Nivart, Muséum national d'Histoire naturelle, Paris, France

Isabel Rey, Natural History Museum Madrid, Spain

Ole Seberg, Natural History Museum Copenhagen, Denmark

Hendrik Segers Ryal Belgian Institute of Natural Sciences, Brussels, Belgium

China Williams, Royal Botanic Gardens Kew, Richmond, Great Britain

