ETH zürich

Infozine No. 10

The Magazine for Users of Scientific Information

OA and libraries

At present, it looks like that the Open Access (OA) Movement is again on the move, going towards a new high. The OA movement demands free access to all scientific publications by reversing the traditional business model. Under this model, no longer the reader, or the library pay for access but the author does. Not only the Max-Planck Society did the math and concluded that, yes, it is possible for us. However, no discussion has yet focused on the fact what this means for younger researchers. Right now, they can publish, in principle, as much as they want. However, if seniors – supervisors but not peers allocate publishing budgets it may happen that young researchers have to step back to the advantage of more senior or established colleagues – no matter if the budget is managed by a library, a faculty, the university or the supervisor. The lucky third party is industry, which publishes preferably patents yet uses scientific literature a lot. And libraries are organizing conferences with topics like Are libraries no longer needed when there is Open Access?

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Watson and cognitive computing

In the novels by Arthur Conan Doyle, Dr. Watson is the counterpart of detective Sherlock Holmes. Dr. Watson is the one who tediously collects all data. Also the IT company IBM has its Watson. Watson is, of course, not a human but software that applies advanced natural language processing, information retrieval, machine learning, knowledge representation and automated reasoning. In 2011, Watson became very famous as the computer Watson competed very successfully in the popular quiz show *Jeopardy!* against two human champions who were former winners. After a period of immediate hype it got rather quiet around Watson.



Now Watson confirms the Gartner Hype Cycle. After the *Peak of Inflated Expectations* in 2011, especially observable in the pharmaceutical industry, and the *Through of Disillusionment*, Watson seems to have reached now the *Slope of Enlightment*, as the name Watson is now frequently in the news. During Christmas time the IBM Watson Trend app helped those who had difficulties in finding a Christmas gift to get the right one, thanks to the cognitive power of Watson. For example, in the Fall 2015 it was announced that Thomson Reuters, known to you for *Web of Science* and *Integrity*, is about to integrate Watson into new products. There are constantly news on new applications and partnerships, causing the *Financial Times* to state in a recent article that IBM is packing too much under the roof of Watson and hardly anybody knows what Watson is. And indeed, IBM's Watson website is rather generic, just aimed to show how cool the tool is. Similar to the Info Center Watson is now also acting as a chef, yet not by offering information management menus, but suggesting what to cook. By the way, among the university partners of IBM Watson there is also ETH Zurich.

The Infozine Interview

The wish: Exchange semester in Australia

6 questions, today to Phyllis Hofmann (20), studying mechanical engineering)



1. Which are the areas scientists should focus on more in depth?

I think research should focus more on biomedical engineering, with a particular focus on implants, microbodies or on how to deliver drugs specifically to certain targets in the human body.

2. Where is your favorite place at

Definitely the *Polyterrasse*. It is wonderful in summer, when everybody is sitting outside, enjoying the nice weather. In winter there is the skating rink. One advantage of the *Polyterrasse* is that you feel open and not locked.

3. When do you consider a lecture fascinating?

I guess especially when one can see that a professor really likes to teach and enjoys teaching. When professors aim that all students understand the topics of the course and when they provide good course materials, which are easy to understand. I tend to favor younger professors as they are on the same wavelength with the students.

4. What tricks can you share for when your motivation hits the bottom or you are tired of learning?

I think it is important to learn together with people that share similar attitude. Another thing that is important is a well-structured day. Short limited coffee breaks are important, otherwise I would loose my motivation. It is also crucial to aim for a good work-life balance. Studying and learning is important but likewise important it is to meet with friends and do sports.

5. If you were granted a wish, what would it be?

As I have applied for an exchange semester in Australia I am very much looking forward to get accepted. Right now, this is my biggest wish.

6. Which book would you like to recommend?

One of the best books I ever read is Ken Follett's "The Pillars of the Earth" (Editor's note: This is the first part of the historic novel on how to build medieval cathedrals in England, in German: "Die Säulen der Erde". Part 2: "Die Tore der Welt").

Patricia Facchin conducted the interview

Would you like to answer our questionnaire and receive an original Info Center memory stick? Please contact Jan Wyler (wyler@chem.ethz.ch)!

ChemDraw Magic: The 3rd video is live!

Watch ChemDraw wizard Pierre Morieux drawing this complex structure in just 10 minutes

It took a while until a new ChemDraw Wizard video has been uploaded on YouTube. Now Pierre has produced an awesome new video

and you can watch him drawing this amazing structure. You will

learn tricks that can be used not only for

drawing dendrimers!

Do you want your own compound be the actor in one of Pierre's videos?

Do you have tricky compound that you already published and was hard to draw? For ETH Zurich researcher there is a unique opportunity. Dr. Morieux is organizing a series of webinars with the intent to show how to easily draw complex molecules and how to prepare publication-grade chemical drawings in half of the time needed. The videos will briefly introduce the person who made the compound – you!, for which professor you work in which institute or department. Pierre would then need to know in a few lines why it is difficult to draw the structure or what the challenge was when trying to draw that structure, how long it took you to prepare the ChemDraw files for the publication, and perhaps what you would have liked to do better. The video would then show how to do it with a minimum of clicks. Questions can range from how to draw a dendrimer, to how to generate a long synthetic sequence, how to precisely align molecules etc.

Interested? Do you have a real life example that can be published in a video or is already published? Please check with your supervisor. Do you want to receive a professionally drawn structure file? Please contact Joachim Schnabl or Jozica Dolenc who will establish the contact.

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New Information Resources

News from the ETH Library

■ View loan history in your user account

As of now, you can view in your user account which documents you have previously loaned. After signing into your account, the "Loan History" link leads you to the list of former loans. It displays the loans of the past three years.

■ 1 Million DOI s allotted

ETH Zurich's DOI Desk has exceeded the 1 million mark for registered Digital Object Identifiers (DOI). Meanwhile, it provides thirty-five services to twenty-five customers all over Switzerland.

Newly licensed Journals

EJMS – the European Journal of Mass Spectrometry is now available at ETH Zurich, starting with Vol. 1, 1995.

New Resources from the RSC

There is not only an app from the *Royal Society of Chemistry* (p. 6), but due to ETH Library's RCS Gold License access to the following 5 Literature Alerting Services is now possible:

Analytical Abstracts

Analytical Abstracts keeps you up to date with the most recent developments across analytical science. Covering a wide range of sources from 1980 to the present day, you can search literature records in Analytical Abstracts for specific analytes, matrices or techniques, tailor your reading to your subject area of choice or simply browse recently added articles.

Chemical Hazards in Industry

The scientific and trade literature are scanned for information on safety and health hazards surrounding chemicals encountered in the chemical and related industries, with over 250 items published online every month.

Natural Product Updates

Natural Product Updates is a literature updating service keeping you current with recent developments in natural products chemistry.

Laboratory Hazards Bulletin

This online database provides key information on hazards encountered by laboratory workers in all fields including R&D, analytical and hospital laboratories, scanned from the primary scientific and trade literature worldwide.

Synthetic Reaction Updates

Synthetic Reaction Updates is a literature updating service keeping you up to date with recent developments in synthetic organic chemistry.

Currently, there is also access to the following four new RCS journals:

- Environmental Science: Water Research & Technology
- Molecular Systems Design & Engineering
- Nanoscale Horizons
- Reaction Chemistry & Engineering



Additionally, the ETH Library has just recently licensed the RSC eBook Collection 2016 (title lists of all book collections can be found at www.rsc.org/Publishing/eBooks/licens inginfo.asp) as well as the Historical Archive, accessible via the URL http://pubs.rsc.org/historical-collection.

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News from Scopus

■ Scopus Cited Reference Expansion Program

Scientists who – like the author of this Infozine article – have published before 1996 will notice an increase in their h-index in Scopus. At the end of 2015 Scopus has added more than 5 million articles that were published before 1996, including over 93 million references to the database, going back to 1970.

Scopus Book Expansion Program

By end of 2015 Scopus had indexed 120,000 book titles, ending this program formally, but continuing to add another 20,000 e-Books annually.



Let Google show you more than 20 hits

Have you ever realized that Google presents you with only 10 result hits on each page? Would you like to see more? This can be changed. You can adjust the settings to up to 100 hits per page. This is how to do it:

- 1. Open the Google website.
- 2. Select either "Settings" at the bottom or click depending on your browser the gear wheel top right and go to "Search Settings".
- **3.** Click on "Never show Instant results".
- **4.** Select a value between 10 and 100, e.g. 20, as this usually does not impact performance significantly.
- **5.** "Save" and you will immediately see more hits when doing a search.

News from Relevant, Powerful,



The semantic search engine Quetzal is available with its Advanced version for everyone at ETH Zurich. For registration, an ETH Zurich address is required.

With Version 5.0.2. there comes a new PowerTerm: **\$Interaction.** This term covers a wide range of types of interplay between entities.

News from the World of Scientific Information

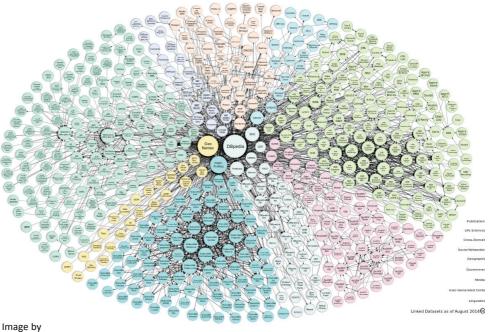
DBpedia

Are you familiar with the info boxes on the top right of numerous Wikipedia articles? In articles about countries you can find there, *e.g.*, population numbers, area or languages.



Even though there is a large amount of information in Wikipedia, there is no possibility to query this data in a more sophisticated manner than searching for keywords. In order to extract structured information from Wikipedia, the crowd-sourced community project DBpedia was born. DBpedia creates datasets that can be queried, e.g., by web applications in a much more powerful way than with the standard search functionality. You could ask for example: "Which are the three smallest countries where Spanish is the official language?" or "Which stars in the night sky are brighter than the planet Jupiter". The main advantage of DBpedia over other knowledge bases is that it originates from the massive number of entries in Wikipedia covering countless topics. DBpedia now describes over 40 million "things" in over 120 languages. These are persons, places, species, diseases, and many more. DBpedia is a nice example to explain the two terms semantic web and text mining: Data and context is extracted from Wikipedia with text mining, making it machine-readable. Complex (semantic) queries are therefore possible without further data analysis. The image to the right shows DBpedia in the Linking Open Data Cloud 2014.

DBpedia is a joint project of the University of Leipzig, the University of Mannheim, the Hasso Plattner Institute and OpenLink software, which can be used to extract structured information out of Wikipedia and make them accessible for web applications.



Max Schmachtenberg,
Christian Bizer, Anja Jentzsch and Richard
Cyganiak

http://lod-cloud.net/, CC BY-SA 3.0

The tip: Generate PDFs from websites easily on an iPad

Sometimes you want to store a web page permanently, not as an URL, but as a document. And quite often you are viewing such a web page on a tablet. If you have an iPad, you can transform a web page easily into a PDF (that can also be forwarded). And quite often such a PDF looks much better than a PDF that has been generated by using the "Print" dialogue – no matter if with a printer or a PDF printer. And this is how to do it: tip the export square icon top right and select "Store PDF in iBooks". The PDF will be generated and can be found in the App iBooks.



We have used the D-CHAB website for a test. As you can see on the right (bottom) all elements are properly displayed.



PDF mausing a Desktop PC/browser



PDF generated with the iPad

Especially when dealing with complex web pages rendering the PDF with the iPad "Store in iBooks" functionality may be particularly useful.

Are all PDFs equal? Which PDF is safe for archiving?

Everyone is getting PDFs or reading PDFs, for example with the free Adobe PDF Reader. And most software and operating systems allow you to store files in a PDF format or print them as PDF, yielding a file that can be exchanged, i.e. a portable document file. The Portable Document Format PDF is a file format to present documents in the same style, independent of the application software, the hardware and operating systems, developed by Adobe Systems and released in 1993 free of charge.



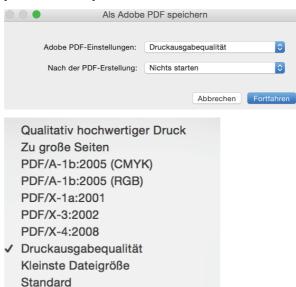
But will you be able to read PDFs in 10 years from now, as for example the floppy disks with ETH Zurich Ph.D. theses from the 90ties? First you will realize the lack of the appropriate reading device but it is also not certain that the disks remain readable after 25 years. Second, it is not necessary that today's software can read the old file formats at all. This is most likely not the case, provided you do not have e.g. an old Macintosh Performa 5200 at home, which still runs the ancient software. But also transforming files into PDFs does not necessarily help. If doing so, they should be transformed into PDF/A. However, which PDF format exactly is generated from Word or when using the "Print" command of your OS is usually not displayed:

✓ Word-Dokument (.docx)

Allgemeine Formate
Word 97-2004-Dokument (.doc)
Word-Vorlage (.dotx)
Word 97-2004-Vorlage (.dot)
RTF-Format (.rtf)
Nur Text (.txt)
Webseite (.htm)

Word provides the following information only: "Exports the document into a PDF file, which can be displayed by Macintosh and Windows computers in a similar style.

The Save/Print dialogue of Adobe Professional provides you with more options:



The standard PDFA/A-1 has been defined and published in 2005 as a standard for archiving, ISO 19005-1:2005, Document management — Electronic document file format for long-term. Type PDF/A-1b — Level B (Basic) conformance stands for unique visual reproducibility. Type PDF/A-1a — Level A (Accessible) conformance stands for unique visual reproducibility both in terms of images and Unicode text and structuring of the document's content such that the content can be read by a screen reader, thus ensuring accessibility. Adobe Professional has even a version for Printing (CMYK colors) and one for the web (RGB colors). PDF/A does not allow e.g. Javascript and also prohibits references to resources that are not actually embedded in the file.

PDFs as electronic invoices

Although PDF/A is for archiving and thus sustainable also this standard has already been developed further. The version PDF/A-2, issued 2011, allows e.g. the embedding of PDF/a-1 files. The later 2012 version PDF/A-3 allows embedding of files in any file format, e.g. embedding of the original data that led to the generation of the PDF. The standard does, however, not regulate the "archiveability" of embedded data files that do not comply to the PDF/A standard. The standard PDF/A-3 has also been developed for electronic invoices, as this standard allows machine readable data in XML format to be embedded while the PDF version of the invoice remaining a PDF for archival purposes.

PDF/A is also the standard for archiving electronic lab notebooks (ELN). Although the software used to create and maintain electronic lab notebooks as well as the software for generating experimental data may not be accessible for decades, PDF/A files created out of the ELN should be readable; they will remain so with PDF/A. By the way, the PDF/X standard (see figure on top) is of interest for the printing industry.

App Tips (1)

As it is winter, not only science apps but also winter sports apps are of interest.



Swix from the
Norwegian wax
producer Swix is
available in English
and Norwegian and
comes with location
services and
weather check and
forecast. For skating,
classic, snowboard,
alpine. Free, iOS and
Android.



An alternative is the (Austrian) App from **HWK**. Free, iOS and Android, with similar functionality, including links to video tutorials.



And last but not least a Swiss App.

Skilanglauf —

Technik is provided by the Schweizer Bundesamt für Sport (BASPO). Members of the Swiss national team demonstrate all the steps in both the classic and the skating style. Thus 5 CHF, Android and iOS.

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Forest - Stay focused

The examination period is over, and some of you may have benefitted from Forest: Stay focused, be present if we would have published this earlier. The



app has been awarded by Apple among "Best New Apps" and "Amazing Apps". Forest helps you stay away from the inter-

net and thus being more focused when e.g. learning. Once you start the app, you plant a virtual tree. If you do not switch to a webpage for 25 min, the seed will develop into a tree, otherwise the tree will wither away. If you work concentrated and stay away from the web for a long time you will manage to grow an entire forest. Available for iOS, Android, Windows Phone, and also Chrome and Firefox. 1 CHF, because feeling guilty is not for free.



Update on MedicinesComplete: A database hub

The platform MedicinesComplete of the Royal Pharmaceutical Society provides you with access to four important reference works for pharmaceutical sciences. Access is possible only within the ETH Zurich network. All four databases have been updated recently.

Clarke's Analysis of Drugs and Poisons: December 2015: A global revision of pharmacopoeial information from the British Pharmacopoeia, European Pharmacopoeia, and the United States Pharmacopeia—National Formulary has been completed.

Martindale: December 2015: This update contains 13 new monographs, and 17 existing monographs have been updated. Preparations have been updated for 9 countries.

Pharmaceutical Excipients: November 2015: This update contains 3 new monographs, and 52 monographs have been entirely re-validated and updated. Stockley's Herbal Medicines Interactions: January 2016: Eclipta has been fully revised, and a further five monographs have been selectively revised. Pharmacopoeial information has also been updated.

Switzerland has now free access to the Cochrane Library and evidence-based medicine

Everyone in Switzerland – with a Swiss IP address – can now access the Cochrane Library, no matter if physician, patient or just interested public, and can search the systematic reviews for health issues and diseases, diagnoses and therapies. The Cochrane Library is a reference work database based on recent evidence-based research, provided by publisher Wiley via the very well known platform Wiley Online.

What is evidence-based medicine (EBM)?

EBM is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

Definition Cochrane Center, according to Sackett et al. 2011

This has been made possible by a national Cochrane Library license, granted for any computing device in Switzerland. The establishment of the license has been made possible thanks to the initiative and financial contribution of the Swiss Academy of Medical Sciences (SAMW), complemented by the Federal Office of Public Health (BAG) and university libraries and hospitals.

"Cochrane" is a global network of independent health professionals that gather and summarize best evidence from research to make informed choices about treatment for more than 20 years. The systematic reviews are internationally acknowledged as quality standards and reflect current knowledge.

The Swiss National License has received considerable attention in the news, also out of Switzerland:

- Deutsches Ärzteblatt: Schweizer erhalten kostenfreien Zugang zur Cochrane Library
- DAZ: Die Schweiz schenkt ihren Bürgern Evidenz
- Beitrag im Schweizer Fernsehen SRF



More information:

Access to Cochrane Library: www.thecochranelibrary.com
Access to Cochrane Kompakt German Summaries of Reviews
Cochrane Switzerland: http://swiss.cochrane.org/de/home
Cochrane Library Reference Guide (PDF, 2.1 MB)
Cochrane Library Search Tour (PDF, 5.9 MB)

App Tips (3)



Period Table is an alternative to Merck PSE,

the app that has been introduced in Infozine No. 2. The Royal Society of Chemistry's interactive periodic table features information on the history of the elements, about alchemy, and includes podcasts, videos, and data trends across the periodic table. Freeware. Android, iOS and Website.

Of course there are also many specific apps for pharmacists, including text books – but no free apps.



Arzneimittelprofile:

The well-known drug profiles. iOS und Android, 10.00 CHF/9.99 EUR

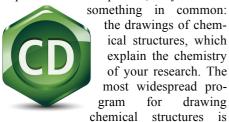


Medizinische Chemie by Steinhilber / Schubert-Zsilavecz / Roth. iOS only, 70.00 CHF/69,99

News from the Info Center

New: ChemDraw Compicampus course, by Info Center

Are you a student in chemistry or life sciences? Your lab reports, exercises, presentations or posters, they all have



ChemDraw. Students at the ETH can obtain a free copy of ChemDraw as a part of the ChemOffice package via IDES.

Within the Compicampus IT shortcourses, the Chemistry | Biology | Pharmacy Information Center is pleased to offer for the first time a training for ChemDraw. In our course we will provide students in chemistry and life sciences with knowledge about the basic functions as well as tips and tricks for advanced usage. We'll show you how to work more efficiently by using shortcuts and templates. Did you know you can search bibliometric and chemical information in SciFinder directly from ChemDraw? Never lose time again searching for program functionalities in ChemDraw. After our training you will be a professional, using simultaneously keyboard and mouse to quickly draw even complex structures or biomolecules.

Informatikdienste

To give you an impression on what avid users of ChemDraw can achieve within minutes, read the article *ChemDraw Magic: The 3rd video is live!* on page 2. This article also includes details on a very special offer from ChemDraw for ETH Zurich researchers and students.

The Info Center is now also on Twitter and Instagram

We were quite reluctant and wondered if we really should also be represented on Twitter, in addition to Facebook and an internal LinkedIn Group. As an Information Management Center we rather optimize information flow and minimize information overload than help to increase information noise. However, we realized that occasionally, if not frequently, also inactive users of Twitter learn about interesting stuff: news items you would not have noticed otherwise.



The decision for an Instagram account, however, was first. The opportunity to post extraordinary photos and images was too tempting, as a private account showed. As any image that is going to be posted on Instagram can be sent in parallel to Twitter, the decision for Twitter in addition was not difficult.

After a testing period both accounts are now public. A mobile device is required to see our posts on Instagram and Twitter. Posting on Instagram is possible only via a smartphone or tablet. The icon links to Instagram and Twitter can be found in our website close to the logos of Facebook and LinkedIn. Or you search for our Instagram name infozentrum or our Twitter name ICBPETH.

We are looking forward to seeing many interesting tweets by many followers.





News from the Info Center

Crystallography Library has been moved to the Info Center

A crystallography library is more than a library about crystals. Crystallography research deals with the structure and physical properties of solid compounds and is, therefore, of interest for many research areas, such as earth sciences, solid state physics, material science, molecular biology, solid state chemistry and pharmacy.



The history of crystallographic research at ETH Zurich starts in 1856, just one year after the ETH Zurich was founded. Originally the Crystallography Library was part of the joint library of the Professors of Geology (since 1855, Arnold Escher) and Mineralogy (since 1856, Adolf Kengott). Later on, crystallography research was considerably expanded by Professors Paul Niggli, Fritz Laves, Alfred Niggli and Walter Max Meier. The book Geometrische Kristallographie des Diskontinuums, authored by Paul Niggli, had been a reference work for many years until 1935. It was superseded by the Internationalen Tabellen, also authored by Paul Niggli and Ernst Brandenberger.

When the Laboratory of Crystallography was founded in 1993 by Walter Steurer (D-MATL), the crystallographic part of joint Earth Sciences Library collection was divested, and the Crystallography Library was formed. Since then, the collection grew about one-third to almost 2000 titles. Since early February 2016, the Crystallography Library, until now located in HCI G513, has found a new home in the Chemistry | Biology | Pharmacy Information Center, due to the Walter Steurer's retirement. The

library does not contain books only about crystallography but also books on many other topics. All titles can be found in the NEBIS catalogue, but at least for the time being not in the CLICAPS catalogue. With the exception of only a few titles all books can be borrowed - via NEBIS or the Knowledge Portal. All books are, differently than usual in the Info Center, not shelved based on topics but - as it was in HCI G513 - according to the year the book got published. Thus, you can not select books according the subject matter but can make a chronological journey through the decades, even centuries. The Crystallography Library can be found in the H floor, shelves 752 to 762, and is visible by the silver-colored signage.



New: Coffee Lecture Collector's Album

With the start of the 8th series of the Coffee Lectures in February 23, 2016, we will hand out an album in which you can note which Coffee Lecture Collectors Card you already have. Both the album and the cards are available at the Lectures only.



Introducing Info Center staff

Also in this issue of Infozine we are introducing again a member of the Information Center, this time one of our apprentices. Every second year, the Info Center welcomes a new apprentice, a Fachmann/Fachfrau Information und Dokumentation. Currently, there are two in the team of the Infodesk. Patricia Facchin (220 67) has started her education already in August

2013 and will finish the three-year program in summer 2016. As apprentices in the third year are already experienced and are almost "Fachfrau" you can quite often see



Patricia managing the Info Desk on her own. Jan Wyler, who has already been introduced in Infozine No. 1, supervises her. As it is always good to have a broad experience and to be able to see and learn other things she has been - in addition to the educational program in the Info Center – also in other libraries and information centers, like the ETH Library, the Landesmuseum Zürich and the Radiostudio (Radioarchiv des Schweizer Radio und Fernsehens/SRF). Patricia, a native from Frauenfeld, enjoys being in the nature with her mountain bike and has also a strong interest in history.

Imprint

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www.infozentrum.ethz.ch

Rental of lockers

You need a locker for spring semester 2016 – until end of May 2016? Rental starts February 2, 8:00 am sharp. More information and terms and conditions can be found on our website.