

Newsletter

Number 3, 2012, November–December

Dear reader,

During the past few months, nearly all partners of the META-NORD project were busy with the organization of the workshops on the LT (Language Technology) situation and development at the national level. Some partners had already accomplished this before, but the Danish, Finnish, Estonian, Lithuanian, Swedish and Norwegian META-NORD teams did this at the end of the second project year.

In regard of these national events, almost the entire third issue of the META-NORD newsletter is dedicated to

reports of the workshops.

You will find out that the Finnish national workshop was organized in conjunction with FIN-CLARIN and that industrial players in Finland are quite positive about the digital future of the LT. The Danish workshop was successful not only in the presentations but also in the interest of the attendees; on top of that, it stimulated quite a fruitful discussion!

The national workshop in Norway was organized at the National Library and the workshop in Lithuania at the Parliament. Whereas Estonia organized as many as two consecutive conferences dedicated to the improvement of the

situation of LT.

All in all, the workshops achieved a lot of success in all META-NORD countries and served as a national platform for communication between professionals and users. Also in this issue you can read an article concerning the LT situation in Iceland. This article reveals the shift in the digital situation and the future possibilities it has created for Iceland. We hope you will like all of the articles and will find new exciting things to think about.

Enjoy your reading!

META-NORD & FIN-CLARIN National Workshop in Finland

The Finnish national workshop, organised on November 2, provided an excellent opportunity to bring to the attention of the larger public the findings of the META-NORD Language White Paper for Finnish.



Mietta Lennes presents META-SHARE at the META-NORD & FIN-CLARIN National Workshop

Both the presenters of the book and the participants of the panel discussion

entitled “The future of the Finnish language in the digital world” stressed the need to include research exemption clauses into the Finnish copyright law, since this would significantly improve the accessibility of language technology resources. Thus, researchers could more efficiently contribute to the development of language technology for Finnish.

Another important message of the workshop was that although it is hard to imagine that Finnish could be threatened by digital extinction in the near future, self-complacency with the current status of the Finnish language technology can have dire consequenc-

es. As Kimmo Koskenniemi, professor emeritus of Computational Linguistics at the University of Helsinki stated rather provokingly, some small language communities such as Basque, that have realised the importance of investing into LT, might prove to be better prepared for future challenges brought by the digital world than those languages that ignore the field.

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Kimmo Koskenniemi also pointed out that applications work first in English and later on perhaps in Finnish, too. English is however bound to keep its edge over Finnish. Hence, due to the increasing importance of digitalization in our lives, Finnish might gradually lose its prestige among native speakers and become marginalised. In order to prevent this we have to enhance the Finnish LT by making it easier for researchers to access language resources as well as by creating open source tools that answer the needs of the research community in Finland. Ossi Mäntylähti from the National Coa-

lition Party pointed out that the key to preserving one of the EU's main assets, namely multilingualism, is providing effective LT support for the European languages. In Finland Yle, the national public service broadcasting company could contribute to the improvement of the Finnish LT by making publicly available for example Finnish subtitles of certain archived programmes as well as translations of these subtitles into Swedish, English and Russian.

Juhani Reiman, the managing director of Lingsoft Ltd., Arto Leinonen, the managing director of Kielikone Ltd.,

and Arto Mustajoki, Chair of the Board of the Academy of Finland, all of them participating in the panel discussion on the future of the Finnish language in the digital world, were more optimistic about the chances of Finnish to face the challenges of digitalization. Arto Mustajoki for example expressed his belief that the digital world is more of an opportunity than a threat from the point of view of languages like Finnish.

Imre Bartis,
University of Helsinki

The Danish META-NORD workshop on language technology was a huge success



Bolette Pedersen with the white paper

The Danish META-NORD workshop on language technology took place at the University of Copenhagen on the 31st of October. The aim of the workshop was to present the META-NET white paper, The Danish Language in the Digital Age, and the META-NET platform, META-SHARE. In addition, the University of Copenhagen (UCPH) had planned a programme which would facilitate the exchange of experience among the participants on the status of the Danish language technology today and thus initiate discussions about forming a language technology network in Denmark. These goals were all met, and many participants have afterwards expressed very positive and supportive opinions about the workshop and the formation of a language technology network in Denmark.

The programme attracted a total of 85 participants including researchers, commercial developers of language technology, funding authorities, union representatives, users and potential future users of language technologies. The event also attracted several students.

The day was opened with the presentation of the white paper Danish in the Digital Age and of the META-SHARE platform for exchange of language resources and tools. Many interesting and thought-provoking examples were presented to illustrate the conclusion from the report quoted below. The questions and discussions following the presentations also supported this conclusion.

A number of sessions focused on language technologies for the written language and contained presentations given both by industry and researchers. The presentations included subjects such as information search and decision making in English in IBM's Watson, automatic classification and tagging to facilitate search in Danish on-line news, intelligent information retrieval on a Danish job portal using semantic information, and new horizons in language technology for under-resourced languages and for question answering.

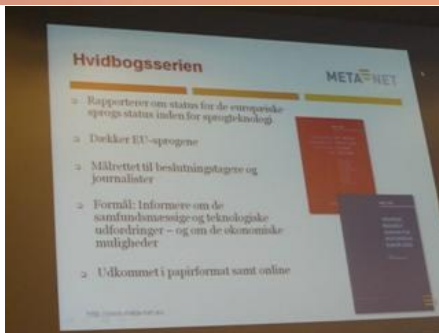
Speech technology was also addressed both by industry and research. These

presentations included an overview of existing speech technology components and applications for Danish, such as speech recognition, speech synthesis, mobile dictation, audio mining and various integrated solutions. The overview was followed up with a presentation of the aims of the newly formed Danish Center for Applied Speech Technology. The third topic addressed in the workshop was language resources and research infrastructures. There was a general presentation about research infrastructures in Denmark relevant for language technology, followed by presentations of two language resources for Danish: a Danish reference corpus of general language and the Danish Terminology and Knowledge Bank project. The workshop ended with a panel debate where the formation of a Danish language technology network was discussed. The debate showed that industry players as well as researchers were very interested in joining and supporting such a network, and email-exchange afterwards has confirmed the great interest. UCPH has taken the initiative to get the network started.

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Quote (from the white paper)

Given the present situation and the importance of language technology as the key for protecting and furthering the Danish language in the information-driven society, these results indicate that there is an indispensable need for new programmes specifically focusing on the development of language technology systems, tools and resources.



Slide from the white paper

In conclusion, the outcome of the workshop was thus not only higher awareness through the presentations, but also a very lively and fruitful communication and exchange of views between users, researchers and developers. Finally, the creation of a language tech-

nology network is expected to be a very visible and useful outcome of the workshop as well.

All in all, the Danish white paper has been very well received, not only by its immediate target group, but also by the press. Following the Danish press release about the report about 10 news items have appeared in Danish newspapers and magazines, including a feature article in the largest Danish newspaper and a 50 minutes interview on the Danish national radio channel. The good press coverage has led to many inquiries from different companies who are interested in integrating language technology in their different activities. Such an industry interest is an important precondition for political decisions about

R&D programmes to boost Danish language technology and support the Danish language in the digital age.

The UCPH META-NORD team



Talk in the coffee break

With new LT resources Iceland takes a step forward in the digital world

November 16, the birthday of the well-loved poet Jónas Hallgrímsson, is the day of the Icelandic language. Every year the media, schools, institutes and the government host various events to help celebrate the language. And every year the Icelandic Language Council presents its resolution on the status of Icelandic and grants awards for service to the language. This year both the resolution and the awards were dedicated to Icelandic language technology.

The Resolution of the Icelandic Language Council

The resolution, referring to the language reports of META-NET, expresses concerns over the status of Icelandic language technology (LT), as Icelandic is at a disadvantage in all categories discussed in the reports. There are too few LT resources available and even fewer are being developed. The world is changing and if we do not change with it we run the risk of the digital death of the language. And there is a reason to worry. Recent development shows more and more tablet computers being used in the school system while little or no teaching material exists for them in Icelandic. A recent study also showed that while Icelandic user interface exists for the Windows platform, about 40% of the schools in the country still use the English interface. It is not only necessary to provide the LT: we need to make sure it is being used.

To turn the tides, The Icelandic language council suggests several actions that are necessary in order to keep up in the digital world. Firstly there is a need to create a ten-year-plan that specifies what needs to be done so that Icelandic can be used as widely as possible within

computer and information technology. Secondly there is a need to establish a developmental fund for Icelandic LT with at least 20 million Icelandic kroner as annual contribution from the government budget. Thirdly it is necessary to launch a campaign promoting LT, its importance and possibilities for the language, and to raise awareness of the consequences if Icelandic does not become a valid choice within computer and information technology. Other actions the council deems necessary are creating software that works with text-processing-systems to correct the user's language and grammar mistakes; emphasizing to government and school administrators the importance of Icelandic user interface of all common software; increasing terminological work in computer and LT; creating an open translation memory for Icelandic software translations and funding the creation and adaptation of Icelandic study material for use in tablet computers.

Award for service to the Icelandic Language

In addition to dedicating the yearly resolution to LT, awards were given to the leaders of two LT projects.

Kristinn Halldór Einarsson, the president of the Association for the blind and visually impaired, was given recognition for the initiative and leadership in the creation of a new Icelandic speech synthesizer. The synthesizer that was introduced earlier this year is software that converts text into speech and is able to run on computers, phones and various other computer-controlled devices, such as ATMs. In addition to increased quality the main advantage of the new synthesizer over existing ones lays in the fact that it runs on the modern day devices that have become increasingly more important in our daily lives, such as smart phones and tablets. The synthesizer is, therefore, not only an invaluable aid for the blind and visually impaired but a huge step for the Icelandic language and the Icelandic LT which unfortunately lags behind the LT in our neighbouring countries.

Jón Guðnason, assistant professor of computer science at the University of Reykjavik, and Trausti Kristjánsson, entrepreneur and adjunct lecturer at the University of Reykjavik, also received recognition for their contributions to a new speech recognizer for Icelandic.

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The recognizer was developed by Google in collaboration with the University of Reykjavík and the Icelandic Centre for Language Technology and became available this fall. The speech recognizer, which currently is only available for Android phones, takes spoken language and converts it into written text. It is thus possible to control various devices with a single voice. This technology has been available for English and many other languages for quite some time but for Icelandic it has been quite limited. This is, therefore, a huge step

forward in Icelandic LT.

In addition to the two awards given to LT projects by the Icelandic Language Council the University of Iceland awarded the first prize of the Utilization Award to Kristín Bjarnadóttir and Jón Friðrik Daðason for the context-sensitive spell-checker Skrambi. This is the first context-sensitive spell-checker for Icelandic and will no doubt become extremely useful authoring support software as soon as it will be made available to the public.

These three LT projects bring Icelandic a step closer to the goal – the Icelandic

language as a fully functioning option when communicating to any human, machine or device in the digital world. And with the support from the Icelandic Language Council and increased awareness from government and the public the next step should be close at hand.

*Kristín M. Jóhannsdóttir,
University of Iceland*

National workshop in Lithuania

*An international conference **European Languages in the Age of Technology: quo vadis?** was held on November 14, 2012 in Vilnius, Lithuania*



From left to right: Andrejs Vasiljevs, Stelios Piperidis, Georg Rehm, Neeme Kahusk

The goal of the conference was to identify the challenges that national languages face in the rapidly developing language technology context, to present META-NET initiatives in overcoming language barriers for the wider audience of Lithuanian researchers, politicians and society. The Conference was organized by META-NORD, The Institute of the Lithuanian Language with the help of

the Seimas (the Parliament of Lithuania) and the European Information Office of the Parliament of the Republic of Lithuania. The Conference took place in the Lithuanian Seimas Constitution Hall with big photos reminding the long and difficult struggle of Lithuania for its Independence. Representatives of the research institutions, language technology experts, decision makers, politicians

from Europe and Lithuania pointed out not only challenges of language and cultural diversity of Europe, especially for the small languages, but also the great possibilities which age of technology and innovation could bring if the society is aware and is ready to consolidate its efforts in technological era.

The future belongs to those languages that have their preservation adequately supported by technology. This idea was introduced in the presentation of the Member of the European Parliament Algirdas Saudargas, who spoke about the Lithuanian Language Technology Strategy, or the vital need for a unified and long time strategy. November 14 was the day when the new elected Seimas (the Lithuanian Parliament) started their work for the next four years. In the context of the Governmental changes the presentation of Ramunas Cepaitis, the Head of Office of the Committee for the Development of the Information Society, concerning the Continuity of the State Policy became one of the key presentations.

META-NORD has been presented by Andrejs Vasiljevs (Tilde), Neeme Kahusk (University of Tartu), Jolanta Zbarskaite (the Institute of the Lithuanian Language).

Multilingualism is one of the Europe's most valuable heritages, but we must understand each other, communicate and collaborate overcoming national borders

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Conference was held in the Lithuanian Seimas Constitution Hall

The creation of the repositories for Language Resources of the Baltic and Nordic countries usable for the Language Technology purposes – the case of META-NORD – has been presented by Andrejs Vasiljevs. Jolanta Zabarskaite, the director of the Lithuanian Language Institute and one of the authors of the Lithuanian White Papers, pointed out that the Lithuanian Language Technology is in a very poor state according to the study the META-NORD partners had been doing together with other META-NET projects. Neeme Kahusk from the Tartu University spoke about the consolidation of Estonia's efforts working with language resources and not only within the boundaries of the META-NORD project, though it is a significant opportunity supported by the European

Commission.

The significant part of the conference was dedicated to the META-NET initiative – building the Multilingual Europe Technology Alliance.

META-NET Network Manager George Rehm brought a set of European Languages White Papers as a present and as a reminder for the Seimas (the Lithuanian Parliament) that politicians could help much in forming the whole approach that multilingualism is one of the Europe's most valuable heritages, but we must understand each other, communicate and collaborate overcoming national borders. Language technologies are the tool for understanding and collaborating, but small and not commercial languages are not supported enough. The market is usually small in such countries as

Lithuania, Latvia, Estonia, so decisions of politicians play a great role here.

Multilingual Europe and its linguistic heritage could bring not only challenges but also many possibilities and opportunities, especially for languages that have fewer speakers – Stelios Piperidis, Coordinator of META-SHARE pointed out this idea by presenting the case of META-SHARE: "Infrastructures for Language Technology Research and Innovation: What, Why and How?"

The META-NET White Papers study was distributed among the participants of the conference together with META-NET and META-NORD flyers.

The member of the Lithuanian Parliament Ramunas Cepaitis came up with a proposal to gather all the stenographs of the conference presentations, prepare, edit and issue a series of articles, which will be disseminated among politicians of the new term and the stakeholders in order to remember the ideas, possibilities and problems that were discussed and pointed out during the conference.

The goals of the conference were achieved; it raised awareness of META-NET initiatives and META-NORD project activities in Lithuania; allowed a chance to meet for representatives of Language Institutions, researches, representatives of LT companies and society, politicians, everyone whose efforts in developing a national strategy and obtaining structural support of the European Union could guarantee the development of language technology in Lithuania.

Audronė Bielevičienė,
Institute of the Lithuanian
Language

National workshop in Norway

On October 15 and 16, 2012, a national language technology workshop was held in Oslo, Norway, under the title "Workshop om språkteknologi og innovasjon"

The event was held on the premises of the National Library of Norway, centrally located in Oslo. The program of October 15 consisted of plenary presentations and a discussion, while October 16 was reserved for match-making and discussions in smaller groups.

The general goals of the workshop

were to stimulate dialog between developers, end users and researchers of language technology, to discover mutual expectations and needs, to demonstrate national and international applications esp. within health, welfare and media and to chart possibilities for present and future project initiation and financing. The conference also had

more specific goals such as introducing and distributing Language White Papers, discussing the Strategic Research Agenda and demonstrating META-SHARE.

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Koenraad De Smedt introduced the Strategic Research Agenda for a Multilingual Europe 2020

of Norway, the Research Council of Norway and the Language Council of Norway. Networking partners were NextMedia, LT-Innovate and Abelia were networking partners and Info-sector AS provided coordination and support for the organization of the event.

The number of registrations was very fair for Norwegian dimensions. The participation was high for Norway, both in number and in the way participants interacted at the event. It was also a major success that many participants contributed with good presentations, and that LT Innovate contributed through the participation of Philippe Wacker, making the conference was an overall success.

Norwegian META-NORD team,
University of Bergen

The workshop was targeted at an audience primarily consisting of industries (mostly SMEs) which are developers and providers of language technology; also of industries and public bodies which are actual or potential users of language technology; secondary targets being decision-making bodies such as government bodies, national and regional agencies, R&D funding organisations, language policy makers and thematically related projects and initiatives.

During the conference Language White Paper series, in particular the Norwegian Language White Papers (Bokmål and Nynorsk) were presented by Gunn Inger Lyse. This presentation first introduced META-NET and META and its members, then outlined the background for the Language White Papers and the key observations in the LWP, and finally covered the press campaign. Copies of the Language White Papers for Norwegian were handed out to all participants. Koenraad De Smedt introduced the Strategic Research Agenda for a Multilingual Europe 2020. This introduc-

tion sketched the motivation for the Agenda, then described the three proposed R&D themes and outlined the strategy to reach the goals.

Human and financial resources towards the organization of the workshop were provided by the University of Bergen, representing Norway in META-NORD, the National Library



The participants engaged with the ideas presented during the conference

Some conclusions from the discussion at the event were the following:

- The development of term banks e.g. in the health sector could become more efficient through cooperation.
- Technical and legal obstacles remain in order to put language resources into use.
- The usefulness of academic resources is difficult to assess.
- Communication in the user's own language may increase sales by 72%.
- Research funding agencies may consider demands for making resulting resources available through Språkbanken.
- Cooperation between academia and industrial developers must be intensified.
- The newly produced Norwegian wordnet may represent a breakthrough for various applications in search and information services.

Two in one – language technology conferences in Tartu



Krista Liin and Kadri Vider presented META-NET Language White Paper for

There were two conferences on language technology in Estonia at the beginning of October. The Conference of National Programme of Estonian Language Technology (NPELT Conference) took place on 2 and 3 October, while the Fifth International Conference "Human Language Technologies – The Baltic Perspective" (Baltic HLT 2012) was organized on 4 and 5 October. The AHHA Science Centre in Tartu served as a venue for both of the conferences, and there was a joint event in the evening of October 3.

The Conference of National Programme of Estonian Language Technology (NPELT) is somehow an unusual one. There is no programme committee, nor peer review. It is a regular event for monitoring the progress of NPELT, and each participating project has an obligation to present an overview of their work and results. The aim of NPELT is to improve the language technology support of Estonian and to achieve such a technological level that would help to survive in the technological world of today. Research and development projects in NLP will be funded, started from language resources up to prototypes of applications.

Nevertheless every NPELT conference held since 2007 had special guests and invited speeches from outside the NPELT projects. This year the Center of Estonian Language Resources (CELR) introduced META-NET and META-NORD in the context of pre-

senting Language White Paper (LWP) for Estonian.

The Language White Paper itself had a large coverage in the Estonian press, since the Estonian people tend to be sensitive to all topics that concern the future of the Estonian language. The concern about the future of Estonian in the digital age is also one of the reasons why the Estonian government has been financing activities that are aimed towards supporting Estonian language technology starting with 2006 already.

Also the introduction of the META-SHARE all-in network of repositories as metadata nodes attracted the attention of the audience. The node at the University of Tartu (metashare.ut.ee) served as an on-site example of how easy it is to add into the repository the metadata of your own resources.

During the NPELT Conference also a public seminar was held on issues related to the legal framework of licencing language resources (both in CLARIN and META-NET). The most competent experts and policy makers in the field of IP in Estonia explained bottlenecks of copyright in the context of language resources and gave suggestions for best practices in licencing them.

The HLT 2012 conference was the fifth in the series. The first Baltic HLT conference was held in Riga in 2004, while the following conferences took place in Tallinn, Kaunas, and once more in Riga.

The main focus of the Baltic HLT conferences has always been language technology for the two Baltic languages – Latvian and Lithuanian, and one Finno-

Ugric language – Estonian. The Tartu conference was not an exception in this regard: the vast majority of the presentations at the conference (14 oral presentations and 23 posters as total) discussed NLP problems of the Latvian, Lithuanian or Estonian language.

The slides of the presentations and some posters are available at the home page of the Baltic HLT 2012, <http://www.cl.ut.ee/HLT2012>. The conference proceedings were published by IOS Press. This time the number of printed copies was really limited, but the content is in fact readily available, as the current issue of the IOS Press series "Frontiers of Artificial Intelligence" is disseminated as an Open Access publication. For details and link for downloading see the Conference home page.

There were also two invited speakers participating at the Baltic HLT 2012 conference. CLARIN ERIC Executive Director Steven Krauwer spoke in his presentation „A Multilingual Research Infrastructure for the Humanities“ about his dreams and nightmares concerning language technology. One of his worst nightmares was of a humanities scholar standing at the bus stop, with the intention to travel to point B. While he is standing and waiting for a bus there comes a technology guy, offering him, no, not a free ride, but a gearbox.

Steven Krauwer called it the “gearbox syndrome”: it can be viewed as a metaphorical equivalent for providing monofunctional tools and very specific solutions, where a comprehensive approach is needed.



Steven Krauwer (CLARIN ERIC, Utrecht University) holding invited speech "A Multilingual Research Infrastructure for the Humanities"

Lori Lamel (senior researcher at LIMSI) presented the Quaero Program in her talk „Multilingual Speech Processing Activities in Quaero: Application to Multimedia Search in Unstructured Data“. Quaero is a network of 27 partners and 6 applications projects aimed to organise and search unstructured data, let it be text, image, speech, video or even music. It is a fascinating work: even without knowing some of the languages they work on, it is managed to

build a robust system that helps to solve several recognition and search tasks. One of the most memorable demos was a tool that enabled to record how much time each politician had an opportunity to speak in a TV debate. Lori's presentation showed that a vehicle with wheels, brakes and engine (not to mention a gearbox) can be built so that the humanities scholar in Steven's nightmare could have a smooth ride instead of receiving some spare tools.

Both conferences gave a good opportunity to share best experiences in the field of language technology in the Baltic states and stressed the importance of this field in the digital age.

*Kadri Vider,
University of Tartu*

National workshop in Sweden

The META-NORD national workshop in Sweden was held on November 23, 2012 in Stockholm. The workshop was jointly arranged by the Swedish META-NORD partner (UGOT) and the Swedish Language Council



Presentation of Magnus Merkel from Fodina

The workshop was well attended by representatives from various stakeholders, i.e. research, industry and the public sector, with about 50 attendees.

Lars Borin presented the results of the Swedish Language Whitepaper to the audience, emphasising that there is still much to do and more investments are needed in the field of Language Technology (LT) to make sure that Swedish survives in the multilingual cultures of Europe.

Martha D. Brandt explained the various META groups and how they are related, introducing META-NORD but focussing on the META-SHARE repository and what potential benefits it has for the audience.

Rickard Domeij from The Swedish Language Council presented a proposal for a national infrastructure for a digital society, and Erik Borälv from VINNOVA – the Swedish Governmental Agency for Innovation Systems presented work towards an open data community, while the other speakers (Mia Ahlgren from The Swedish Disability Federation, Svetoslav Marinov from Findwise, Jussi Karlgrén from

Gavagai and Magnus Merkel from Fodina) brought to light how their respective organisations make use of LT and which resources are lacking that they need.

The workshop closed with an open discussion involving all attendees about the various viewpoints that were presented during the day. The main findings of the Swedish national workshop were that there is a definite need for more funding in LT in order to strengthen and sustain the status of Swedish in a multilingual environment, and furthermore that steps need to be taken towards ensuring that existing and future Language Resources are beneficial to both researchers and industry.

All presentations from this workshop can be found here:
<http://spraakbanken.gu.se/eng/META-NORD-workshop>

*Martha D. Brandt,
University of Gothenburg*

E. Drezen's 120th anniversary conference

Tilde presented META-NET and META-SHARE in the session “Use of the New Technologies in Development and Distribution of Terminology Resources” at the E. Drezen's 120th anniversary conference. Importance of sharing terminology resources and possibilities provided by the META-SHARE platform were discussed. Proposal for integration of EuroTerm-

Bank portal as a dedicated terminology node of META-SHARE was presented.

*Latvian META-NORD team,
Tilde SIA*



Join META!

We invite institutions related with or interested in the development of LT to become a part of the Multilingual Europe Technology Alliance – META.

Members

In the Nordic and Baltic countries

Country; Organization; Location; Representative

Denmark

Ankiro ApS; Copenhagen; Bo Vincents
Copenhagen Business School; Copenhagen;
Peter Juel Henriksen
Dansk Sprognævn; Copenhagen; Sabine Kirchmeier-Andersen
GramTrams; Viby J; Eckhard Bick
Ordbogen; Odense; Peter Revsbech
RAP; København; Son; Keld Simonsen
Society for Danish Language and Literature;
Copenhagen; Jørg Asmussen
Technical University of Denmark; Lyngby; Jan Larsen
The National Museum of Denmark; Copenhagen; Birgit Rønne
The Royal Library; Copenhagen; Anders Conrad
University of Copenhagen, Centre for Language Technology; Copenhagen; Bente Maaegaard, Bolette Sandford Pedersen
University of Southern Denmark, Faculty of Humanities; Kolding; Johannes Wagner
Wind Kommunikation; Copenhagen; Jørgen Christian Wind Nielsen

Estonia

University of Tartu, Institute of Computer Science; Tartu; Tiit Roosmaa

Finland

Aalto University, Computational Cognitive Systems Research Group; Aalto; Timo Honkela
CSC, the Finnish IT Center for Science; Espoo; Antti Pursula
Lingsoft Inc; Helsinki; Juhani Reiman
Sunda Systems Oy; Helsinki; Markku Kiiski
The Research Institute for the Language of Finland; Helsinki; Toni Suutari
University of Helsinki; Helsinki; Martti Vainio

University of Helsinki, Department of General Linguistics; Helsinki; Kimmo Koskeniemi
University of Joensuu; Joensuu; Jussi Niemi
University of Oulu; Oulu; Marketta Harju-Autti
University of Tampere; Tampere; Eero Sormunen

Iceland

CLARA; Reykjavik; Jon Edvald Vignisson
HEILAHEILL; Reykjavik; Þórir Steingrímsson
Heyrnarhjálp; Reykjavik; Sigurjón Einarsson
IceStat; Reykjavik; Snorri Guðmundsson
Máltækniisetur (Icelandic Centre for Language Technology); Reykjavik; Eiríkur Rögnvaldsson
Reykjavik University; Björn Þór Jónsson
Talþjálfun Reykjavíkur; Reykjavik; Þóra Sæunn Úlfsdóttir
The Árni Magnússon Institute for Icelandic Studies; Reykjavik; Sigrún Helgadóttir
University of Iceland, School of Humanities; Reykjavik; Eiríkur Rögnvaldsson

Latvia

ACCURAT; Riga; Aivars Berzins
Let's MT; Riga; Artūrs Vasiļevskis
Tilde; Riga; Andrejs Vasiļevs
University of Latvia, Institute of Mathematics and Computer Science; Riga; Inguna Skadiņa

Lithuania

Institute of the Lithuanian Language; Vilnius; Jolanta Zabarskaitė
Vytautas Magnus University, Center of Computational Linguistics; Kaunas; Rūta Marcinkevičienė

Sweden

ESTeam AB; Älgårås; Gudrun Magnúsdóttir
Interverbium Technology; Linköping; Ioannis Iakovidis
KTH; Stockholm; Joakim Gustafson
KTH Royal Institute of Technology; Stockholm; Rolf Carlson
Linköping University; Linköping; Lars Ahrenberg
Lund University; Lund; Sven Strömqvist
MOLTO; Gothenburg; Emilia Rung
Swedish Institute of Computer Science; Kista; Jussi Karlgren
The Language Council of Sweden; Stockholm; Rickard Domeij
Transmachina AB; Stockholm; Nicholas Cottrell
Umeå University; Umeå; Patrik Svensson
University of Gothenburg, Department of Swedish Language; Gothenburg; Lars Borin

University of Gothenburg, Department of Swedish Language, CLT Dialogue Technology Lab; Gothenburg; Staffan Larsson
Uppsala University; Uppsala; Joakim Nivre

Norway

Clapter Create; Stavanger; Tor Einar Enne
Clue Norge ASA; Oslo; Merete Kravik
CognIT a.s; Oslo; Harald Falsen
Comperio; Oslo; Trond Renshusløyken
Computas; Lysaker; David Norheim
Dictatr; Bergen; Thomas Hagen
ESIS Norge AS; Oslo; Robert HP Engels
Include; Bergen; Sverre Andreas Hilditch Holbye
Kaldera språkteknologi AS; Oslo; Lars Nygaard
Lingit; Trondheim; Torbjørn Nordgård
MediaLT; Oslo; Magne Lunde
NAV The Norwegian Labour and Welfare Administration; Oslo; Daniel Scheidegger
NHH Norwegian School of Economics; Bergen; Gisle Andersen
Narvik Universit College; Narvik; Bernt Bremdal
National library of Norway; Oslo; Oddrun Pauline Ohren
Norwegian School of Economics and Business Administration; Bergen; Gisle Andersen
Norwegian University of Science and Technology; Trondheim; Torbjørn Svendsen
Nynodata AS; Bø i Telemark; Bjørn Seljebotn
Opera Software; Oslo; Pål Eivind Nacobsen
SINTEF; Oslo; Diana Santos
Språkrådet; Oslo; Torbjørn Breivik
Standards Norway; Lysaker; Marit Sæter
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