

**EUROPEAN  
LANGUAGE  
GRID**

**META**  **NET**  
**META**  **FORUM 2021**



**META-FORUM 2021**  
**Using the European Language Grid**  
**The Third Annual ELG Conference**

Georg Rehm (DFKI)  
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15/16/17-11-2021 META-FORUM 2021 – Using the European Language Grid (virtual conference)  
<http://www.european-language-grid.eu>

- **META-FORUM 2021** – November 15-17, virtual conference  
**Using the European Language Grid**
- **META-FORUM 2020** – December 01-03, virtual conference  
**Piloting the European Language Grid**
- **META-FORUM 2019** – October 08/09, Brussels, Belgium  
**Introducing the European Language Grid**
- **META-FORUM 2017** – November 13/14, Brussels, Belgium  
**Towards a Human Language Project**
- **META-FORUM 2016** – July 04/05, Lisbon, Portugal  
**Beyond Multilingual Europe**
- **META-FORUM 2015** – April 27, Riga, Latvia  
**Technologies for the Multilingual Digital Single Market**
- **META-FORUM 2013** – September 19/20, Berlin, Germany  
**Connecting Europe for New Horizons**
- **META-FORUM 2012** – June 20/21, Brussels, Belgium  
**A Strategy for Multilingual Europe**
- **META-FORUM 2011** – June 27/28, Budapest, Hungary  
**Solutions for Multilingual Europe**
- **META-FORUM 2010** – November 17/18, Brussels, Belgium  
**Challenges for Multilingual Europe**



**META-FORUM 2021: Third Annual ELG Conference**  
**Using the European Language Grid**

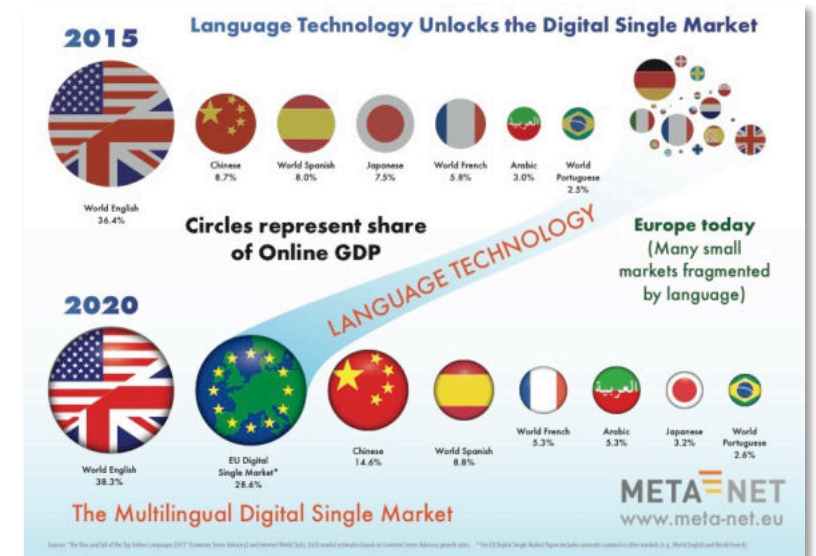
**META-FORUM 2021:**  
**500+ registrations!**

→ Poll: Is this your first META-FORUM?

→ Poll: Where did you hear about META-FORUM?

# Multilingualism in Europe

- Multilingualism is at the heart of the European idea
- 24 EU languages – they all have the same status
- Dozens of regional and minority languages as well as languages of immigrants and trade partners
- Many economic, social and technical challenges:
  - The Digital Single Market needs to be multilingual
  - Cross-border, cross-lingual, cross-cultural communication
  - Fragmentation of the LT market and landscape (including availability of LTs and LRs)
  - Digital language equality?





# META=FORUM 2015



**CRACKER**  
EU-funded project CRACKER (Horizon2020) pushing towards an improvement of MT research in terms of efficiency and effectiveness (2015 – 2017)

**Cracking the Language Barrier Federation**  
Founded in 2015, the federation has been assembling European research and innovation projects as well as all related community organisations working on multilingual technologies

**META-FORUM 2015**  
Conference “Technologies for the Multilingual Digital Single Market” (Riga – April 27, 2015)

**Strategic Agenda for the Multilingual Digital Single Market (Version 0.5)**  
Launch of the Strategic Agenda for the Multilingual Digital Single Market titled “Technologies for Overcoming Language Barriers towards a truly integrated European Online Market” (April 2015)

**Riga Summit on the Multilingual Digital Single Market**  
Summit “Shape the future of the multilingual digital single market” (April 27–29, 2015)

# META=FORUM 2017

# META=FORUM 2019

**“Language Equality in the Digital Age”**  
Workshop on “Language Equality in the Digital Age”, commissioned by the EU Parliament’s Science and Technology Options Assessment Committee (STOA) (January 2017)

**“Language equality in the digital age: Towards a Human Language Project”**  
Launch of the study on “Language equality in the digital age: Towards a Human Language Project”, commissioned by the EU Parliament (March 2017)

**META-FORUM 2017**  
Conference “Towards a Human Language Project” (Brussels – November 13/14, 2017)

**Strategic Research and Innovation Agenda (V1.0)**  
Launch of the Strategic Research and Innovation Agenda titled “Language Technologies for Multilingual Europe – Towards a Human Language Project” (December 2017)



# EUROPEAN LANGUAGE EQUALITY

2021-2022



# EUROPEAN LANGUAGE GRID

2019-2022



# T4ME

**T4ME**  
EU-funded project (Seventh Framework Programme) working on technologies for the Multilingual European Information Society

# META=NET

**META-NET**  
Established in 2010, META-NET is a network of Excellence consisting of 60 research centres from 34 countries, building the technological foundations of a multilingual European information society

**META-FORUM 2010**  
“Challenges for Multilingual Europe” (November 17/18, 2010)

# META=FORUM 2012

**META-FORUM 2012**  
Conference “A Strategy for Multilingual Europe” (Brussels – June 20/21, 2012)

**META-NET White Papers**  
Release of 32 volumes on 31 languages, revealing that there is a severe threat of digital extinction for at least 21 European languages (December 2012)

2010

2011

2013

2015

2017

2012

2014

2016

2018

# META=NORD

**META-NORD**  
EU-funded (ICT PSP) Project to establish an open linguistic infrastructure in the Baltic and Nordic countries (2011 – 2013)

# METANET4U

**METANET4U**  
EU-funded project (ICT PSP) to enhance the European Linguistic Infrastructure (2011 – 2013)



**CESAR**  
EU-funded project (ICT PSP) functioning as a part of META-NET to standardise language resources and tools (2011 – 2013)

**META-FORUM 2011**  
Conference “Solutions for Multilingual Europe” (Budapest – June 27/28, 2011)

# META=FORUM 2011

**“State of the Art of Machine Translation – Current Challenges and Future Opportunities”**  
Workshop on “State of the Art of Machine Translation”, commissioned by the EU Parliament (December 2013)

**META-SHARE**  
Initiated in 2013, META-SHARE has functioned as an open and secure network of repositories for sharing and exchanging language data, tools and services

**Strategic Research Agenda for Multilingual Europe 2020**  
Launch of the Strategic Research Agenda for Multilingual Europe 2020 (January 2013)

**META-FORUM 2013**  
Conference “Connecting Europe for New Horizons” (Berlin – September 19/20, 2013)

# META=FORUM 2013

**Strategic Research and Innovation Agenda (Version 0.9)**  
Launch of the Strategic Research and Innovation Agenda titled “Language as a Data Type and Key Challenge for Big Data” (July 2016)

**META-FORUM 2016**  
Conference “Beyond Multilingual Europe” (Lisbon – July 4/5, 2016)



# META=FORUM 2016

**ELG Final Proposal Submission**  
Final submission on Feb. 20, 2018







# “Language Equality” EP Resolution (2018)

EP Resolution “Language equality in the digital age”  
P8\_TA(2018)0332 – partially based on the STOA study

Voting (11 Sept. 2018): **592 yes** – 45 no

## Recommendations addressed by European Language Grid:

29. Create a European LT platform for sharing of services

41. Enable and empower European SMEs to use LTs

26. ICT integrators should be given economic incentives for LT

27. Europe has to secure its leadership in language-centric AI

32. Set up LT financing platform; emphasise R&D in Deep NLU

40. Develop investment instruments and accelerator programs

European Parliament

2014-2019



TEXTS ADOPTED  
Provisional edition

P8\_TA-PROV(2018)0332

Language equality in the digital age

European Parliament resolution of 11 September 2018 on language equality in the digital age (2018/2028(INI))

*The European Parliament,*

- having regard to Articles 2 and 3(3) of the Treaty on the Functioning of the European Union (TFEU),
- having regard to Articles 21(1) and 22 of the Charter of Fundamental Rights of the European Union,
- having regard to the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage,
- having regard to Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information<sup>1</sup>,
- having regard to Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information<sup>2</sup>,
- having regard to Decision (EU) 2015/2240 of the European Parliament and of the Council of 25 November 2015 establishing a programme on interoperability solutions and common frameworks for European public administrations, businesses and citizens (ISA2 programme) as a means for modernising the public sector<sup>3</sup>,
- having regard to the Council resolution of 21 November 2008 on a European strategy for multilingualism (2008/C 320/01)<sup>4</sup>,
- having regard to the Council decision of 3 December 2013 establishing the specific programme implementing Horizon 2020 – the Framework Programme for Research and

<sup>1</sup> OJ L 345, 31.12.2003, p. 90.

<sup>2</sup> OJ L 175, 27.6.2013, p. 1.

<sup>3</sup> OJ L 318, 4.12.2015, p. 1.

<sup>4</sup> OJ C 320, 16.12.2008, p. 1.

# European LT Market – CEF Study

## Approach and Observations

- Background: SMART 2016/0103 contract: contribute to CEF AT as “multilingualism enabler” for CEF DSIs.
- European LT vendors grouped per type of tech: Translation, Speech, Search, NLU, Analytics
- **EU market approx. 1B€ in 2020 – disrupted by dominant global players**
- SMEs: 70% of EU LT vendors up to 50 employees
- Revenue per company is growing
- Market is highly fragmented: hundreds of SMEs, many address very specific niches, sectors and languages

- CEF study estimates the European LT Market to reach 1B€ in 2020.
- Numbers obsolete, market is going through the roof – thanks to AI!

## Recommendations

- Europe is strong in R&I, but not successful to scale innovations and capture the market
- Europe needs European alternatives to fill the gaps and deficiencies and to avoid reliance on monopolies
- Multilingual DSM should be developed on its own infrastructure
- Public procurement can be the major driver for European LT industry to avoid dependence on monopolies
- Plans needed to avoid brain drain
  - A platform is needed to connect demand and supply as well as industry and research



The Global Natural Language Processing Market size is expected to reach **\$29.5 billion by 2025**, rising at a market growth of 20.5% CAGR during the forecast period

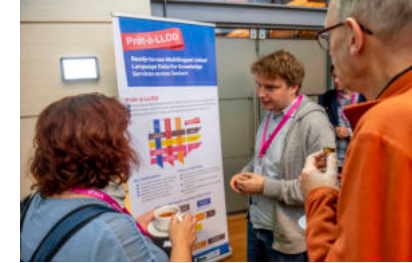
Globe Newswire | FOLLOW  
January 14, 2020 4:26am | Comments

- Truly incredible market forecast!  
(Source: Global Newswire)



# Virtual Project Expo

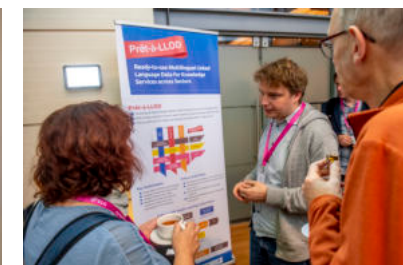
- Dedicated virtual project: **Today, 12:00-13:30**
- A total of 37 projects present themselves, most of them EU-funded
- The project expo will be held in Gather.town
- The project expo is supposed to work exactly like a physical one
- Everybody is invited to join the expo/project booths
- All participating project teams have prepared materials
- Please simply join Gather.town and visit the projects you are interested in one after the other and engage with the project teams
- Ask questions, do some networking, enjoy your (virtual) coffee.
- The Gather.town link will be posted in the Zoom chat and on the MF2021 website.
- Programme at <https://www.european-language-grid.eu/meta-forum-2021/project-expo/>





## Project Expo

	Project	Organization
	E3C (European Clinical Case Corpus)	Fondazione Bruno Kessler
	LSDISCO (Lingsoft Solutions as Distributable Containers)	Lingsoft, Inc.
	MKS-LOO (MKS as Linguistic Linked Open Data)	Coreon GmbH
	Smart euSpeaker (Basque-speaking smart speaker based on Mycroft AI)	Elhuyar Fundazioa
	EVALITA4ELG (Italian EVALITA Benchmark Linguistic Resources for the ELG platform)	Universita' Degli Studi di Torino
	OPUS-MT (Open Translation Models, Tools and Services)	University of Helsinki
	Text2TCS (Extracting Terminological Concept Systems from Natural Language Text)	Centre for Translation Studies, University of Vienna
	PARA4DLM (Textual paraphrase dataset for deep language modelling)	University of Turku, Turku NLP research group
	YouTwinDi (Virtual Personal Assistant Prototype)	Weber Consulting KG
	SLAPMAN (Streaming Language Processing in Manufacturing)	FZI Research Center for Information Technology
	MIC 21 (Multilingual Image Corpus 2021)	Institute for Bulgarian Language "Prof. Lyubomir Andreychin"
	CEFRSERV (CEFR Labelling and Assessment Services)	EDIA BV
	MC-TRISLAN (Motion Capture 3D Sign Language Resources)	University of West Bohemia
	USEA (Universal Semantic Annotator: A Unified API for Multilingual WSD, SRL and AMR annotations)	Sapienza University of Rome
	Sign language explanations for terms in a text	Sign Time GmbH
	ELRC (European Language Resource Coordination)	DFKI GmbH
	Panqura	3pc GmbH, DFKI GmbH
	LT-Bridge	University of Malta
	Bergamot (Browser-based Multilingual Translation)	University of Edinburgh



# Virtual Project Expo

<https://www.european-language-grid.eu/meta-forum-2021/project-expo/>

# Housekeeping I

- **Zoom Webinar**

- Participants cannot use their cameras or microphones
- Only “panelists” are visible and audible

- **Questions and Answers**

- For questions, please use the “Q&A” section (*please don’t use the chat window*)
- In “Q&A”, you can ask questions, look at questions already responded to and upvote questions from others that you’re interested in with the 👍 icon

- **Chat**

- Please use the chat for comments or information you’d like to share.
- Here you will also find organisational tips and hints.

- **Twitter:**

- When tweeting about META-FORUM 2021, please use **#metaforum2021**

# Housekeeping II

- **Polls**

- Throughout the conference, we'll be running a few polls.
- Your feedback is highly appreciated.
- Answers are collected anonymously.

- **Survey**

- When leaving the conference, you'll be redirected to a survey.
- We appreciate if you share your thoughts and opinions with us.

- **Project Expo**

- Please visit: <https://european-language-grid.eu/meta-forum-2021/project-expo/>
- Learn more about exiting new projects and talk to old and new colleagues.

15 Nov. 2021	09:00-10:30	<b>Session 1: Opening</b>
	10:30-10:45	<i>Virtual Coffee Break</i>
	10:45-12:00	<b>Session 2: ELG Pilot Projects</b>
	12:00-13:30	<i>Virtual Project Expo</i>

16 Nov. 2021	09:00-10:15	<b>Session 3: European Language Technology Industry</b>
	10:15-10:30	<i>Virtual Coffee Break</i>
	10:30-12:00	<b>Session 4: Language-centric AI in Europe</b>

17 Nov. 2021	09:00-10:30	<b>Session 5: European Language Equality</b>
	10:30-10:45	<b>Session 6: Closing</b>
	10:15-10:30	<i>Virtual Coffee Break</i>
	11:00-12:30	<b>ELG Tutorial and Training Session</b>



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Detailed Programme at <https://www.european-language-grid.eu/meta-forum-2021>



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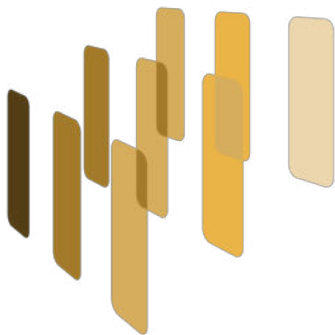
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➔ Poll: Do you plan to attend the ELG tutorial on Wednesday (CET)?

➔ Poll: In the tutorial, we will explain how to integrate resources into ELG.  
Which kind of resources interest you most?



## **META-FORUM 2021**

Welcome and Introduction

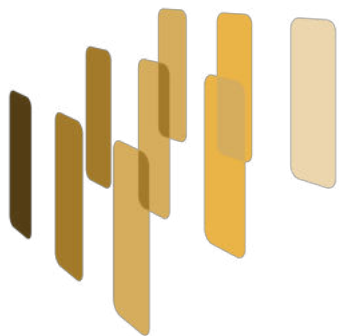
# **Thank you and enjoy the conference!**



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## **META-FORUM 2021**

### **Using the European Language Grid**

### **The Third Annual ELG Conference**

Jan Hajič (LINDAT/CLARIAH-CZ & UFAL, Charles University, Prague, Czech Republic)  
hajic@ufal.mff.cuni.cz

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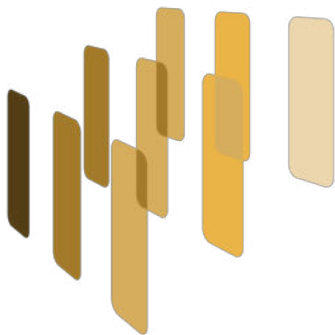
- Founded in 2010 by the FP7 T4ME, later supported by CRACKER, now ELG
  - 60 members from 34 countries
  - META: Multilingual Europe Technology Alliance with “free” membership
  - 900+ members from 68 countries
- META-FORUM
  - This conference – since 2010, now the 10th META-FORUM
- Goal(s)
  - Connect the LT community: research, business, public administrations
  - Vision for the LT community: Strategic Agenda(s) – now within ELE



## Between META-FORUM 2020 and today ...

- **Language Technology projects in Europe**

- **ELG** completed its two Open Calls for pilot projects (15 projects funded)
- **ELE** – European Language Equality PP/PA (2021-2022) – to draft a strategic research, innovation and deployment agenda for LT up to 2030
- Cooperation continues with ongoing LT/NLP projects: **ELITR** – automatic interpreting; **Bergamot** – in-browser MT; **Comprise** – voice-enabled services; **EMBEDDIA** – Cross-lingual embeddings; **Prêt-à-LLOD** – Linguistic Linked Open Data; **Gourmet** – MT for low-resourced languages
- Language technology represented in **Humane-AI Net** center of excellence (2020-2023)



## **META-FORUM 2021**

Welcome and Introduction

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# Session 1: Opening

**09:15      Opening Keynote Speech**

Philippe Gelin (Head of Sector, Unit G3, DG CONNECT, European Commission)

**09:45      European Language Grid: Current state of play**

Georg Rehm (DFKI)

Stelios Piperidis (ILSP/R.C. “Athena”)

Kalina Bontcheva (University of Sheffield)

**10:30      Coffee Break**

**10:45      Session 2: ELG Pilot Projects**