

**EUROPEAN
LANGUAGE
GRID**

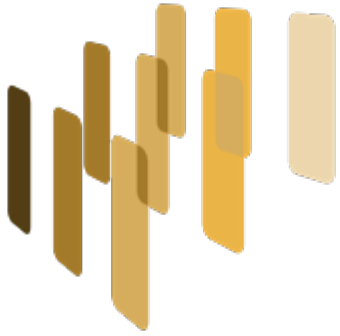


**EUROPEAN
LANGUAGE
EQUALITY**

European Language Grid and European Language Equality

Georg Rehm (DFKI GmbH, Germany), Katrin Marheinecke (DFKI GmbH, Germany),
John Judge (ADAPT Centre, Ireland)

09-12-2020 ECSPM Symposium – Towards Digital Language Equality in Europe
<http://www.european-language-grid.eu>

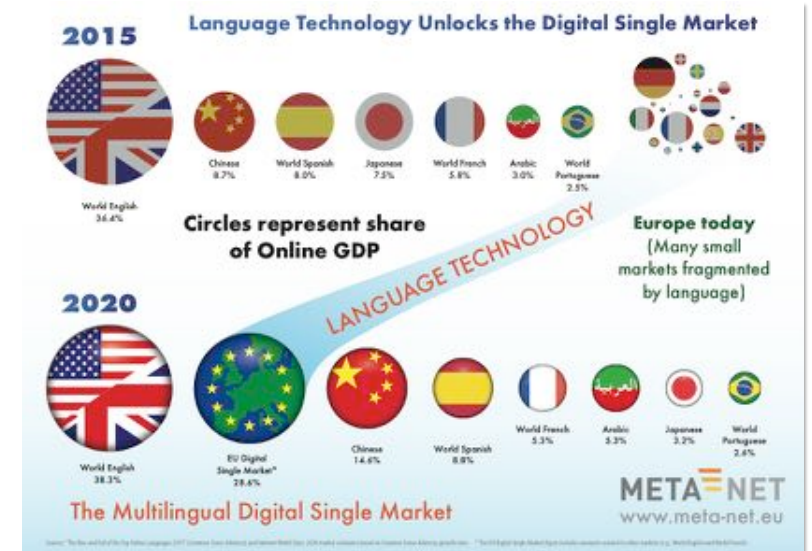


European Language Grid – European Language Equality

- History and context
- European Language Grid
- European Language Equality
- Summary and next steps

Point of Departure: Multilingualism in Europe

- Multilingualism is at the heart of the European idea
- 24 official EU languages – they all have the same status
- Dozens of co-official, 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



Language Technology is already everywhere

- Language Technology makes use of theoretical results of language-oriented research to create applications and technological solutions. Fields and areas involved:
 - Artificial Intelligence + Computer Science
 - Computational Linguistics
 - Natural Language Processing (NLP)
 - Natural Language Understanding (NLU)
 - Psychology, Psycholinguistics
 - Cognitive Science
- **Language Technology = *Language-centric AI***

- Spell and grammar checker in MS Word
- Web search (Google, Bing, Yandex etc.)
- Social Media Analytics, Media Monitoring
- Voice control for phones or computers
- Voice control in cars
- Machine translation
- Conversational agents and chatbots (Echo, Home, Siri, Cortana etc.)
- Speech synthesis in games
- Computer-Assisted Language Learning (CALL)
- Optical Character Recognition (OCR)

Selected applications that include Language Technology



EUROPEAN LANGUAGE GRID

2019-2021



European Language Grid

ELG consortium



META-NET Language White Papers

“Europe’s Languages in the Digital Age”

Basque
Bulgarian*
Catalan
Croatian*
Czech*
Danish*
Dutch*
English*
Estonian*
Finnish*
French*

Galician
German*
Greek*
Hungarian*
Icelandic
Irish*
Italian*
Latvian*
Lithuanian*
Maltese*
Norwegian

Polish*
Portuguese*
Romanian*
Serbian
Slovak*
Slovene*
Spanish*
Swedish*
Welsh

* Official EU language

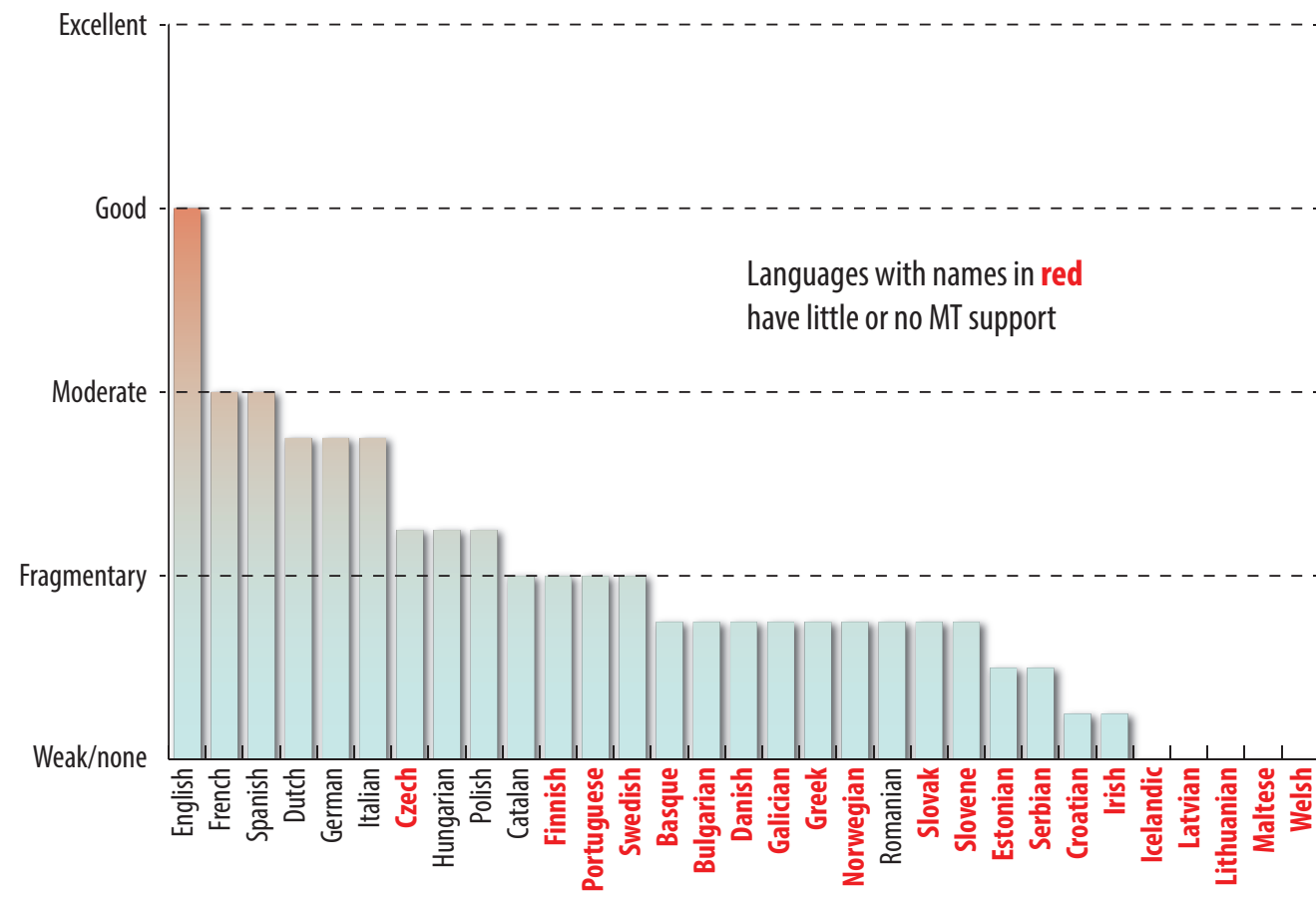


Resources **Speech** **Text Analytics** **Machine Translation**

| Excellent support | Good support | Moderate support | Fragmentary support | Weak or no support through LT |
|-------------------|--------------|--|--|---|
| | English | French, Spanish | Catalan, Dutch, German, Hungarian, Italian, Polish, Romanian | Basque, Bulgarian, Croatian, Czech, Danish, Estonian, Finnish, Galician, Greek, Icelandic, Irish, Latvian, Lithuanian, Maltese, Norwegian, Portuguese, Serbian, Slovak, Slovene, Swedish, Welsh |
| | English | Dutch, French, German, Italian, Spanish | Basque, Bulgarian, Catalan, Czech, Danish, Finnish, Galician, Greek, Hungarian, Norwegian, Polish, Portuguese, Romanian, Slovak, Slovene, Swedish | Croatian, Estonian, Icelandic, Irish, Latvian, Lithuanian, Maltese, Serbian, Welsh |
| | English | Czech, Dutch, Finnish, French, German, Italian, Portuguese, Spanish | Basque, Bulgarian, Catalan, Danish, Estonian, Galician, Greek, Hungarian, Irish, Norwegian, Polish, Serbian, Slovak, Slovene, Swedish | Croatian, Icelandic, Latvian, Lithuanian, Maltese, Romanian, Welsh |
| | English | Czech, Dutch, French, German, Hungarian, Italian, Polish, Spanish, Swedish | Basque, Bulgarian, Catalan, Croatian, Danish, Estonian, Finnish, Galician, Greek, Italian, Norwegian, Portuguese, Romanian, Serbian, Slovak, Slovene | Icelandic, Irish, Latvian, Lithuanian, Maltese, Welsh |



Level of support





Lost for words

The Irish language is one of dozens of European tongues in danger of electronic extinction due to lack of digitised content. How can Gaeilge jump the digital divide, asks **John Burns**

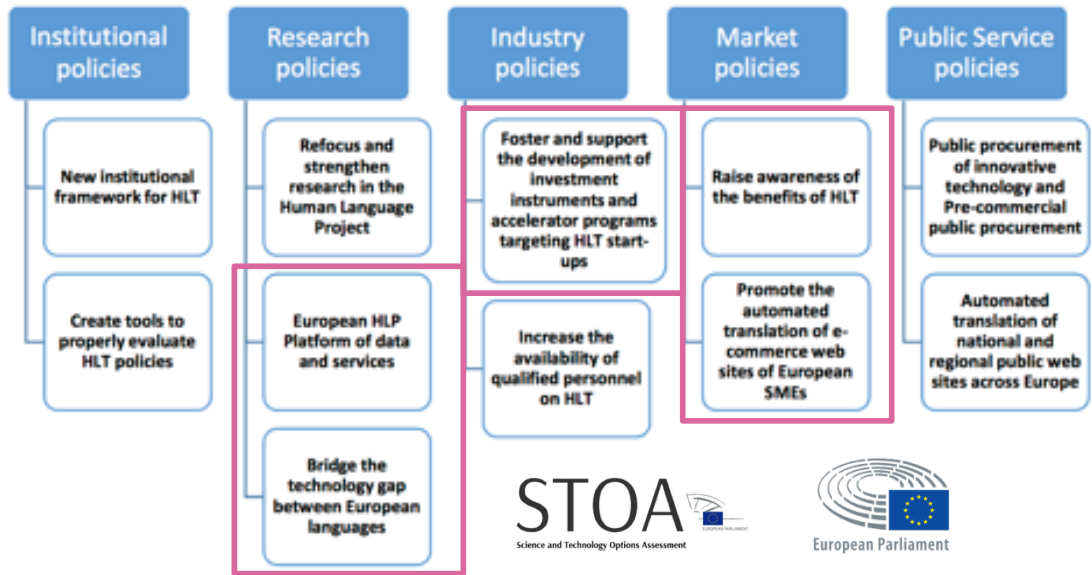
META=NET

STOA Study (2017)

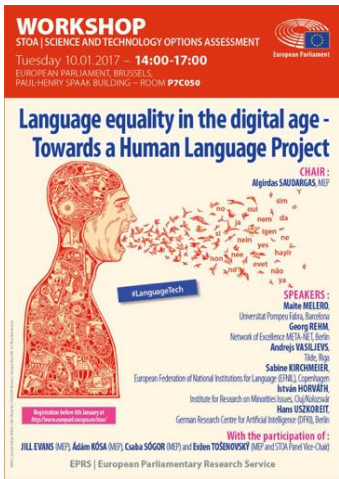
STOA Workshop, European Parliament, 10 January 2017

Study published in March 2017

11 Key Recommendations



STOA
Science and Technology Options Assessment



Language equality in the digital age

Towards a Human Language Project

STUDY

Science and Technology Options Assessment

EPRS | European Parliamentary Research Service
Scientific Foresight Unit (STOA)
PE 581.621

European Parliament 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,

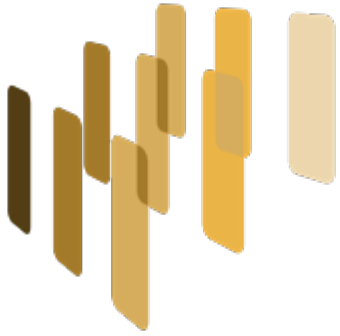
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- having regard to Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information²,
- having regard to Decision (EU) 2015/2240 of the European Parliament and 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 sector³,
- having regard to the Council resolution of 21 November 2008 on a European strategy for multilingualism (2008/C 320/01)⁴,
- having regard to the Council decision of 3 December 2013 establishing the specific programme implementing Horizon 2020 – the Framework Programme for Research and

¹ OJ L 345, 31.12.2003, p. 90.

² OJ L 175, 27.6.2013, p. 1.

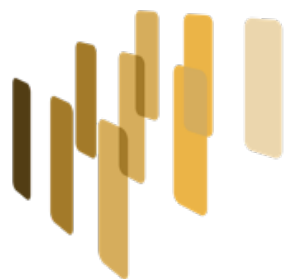
³ OJ L 318, 4.12.2015, p. 1.

⁴ OJ C 320, 16.12.2008, p. 1.



European Language Grid – European Language Equality

European Language Grid



EUROPEAN LANGUAGE GRID



Kick-off meeting, 22/23 January 2019

Objectives (Selection)

1. Establish the ELG as the primary Language Technology platform and market place in Europe to tackle the fragmentation of the European LT landscape.
2. ELG as a platform for commercial and non-commercial, industry-related LTs, both functional and non-functional.
3. Enable the European LT community to upload services and data sets into the ELG, to deploy them and to connect with, and make use of those resources made available by others.
4. Enable businesses to grow and benefit from scaling up.
5. Unleash enormous potential for innovation.

Consortium



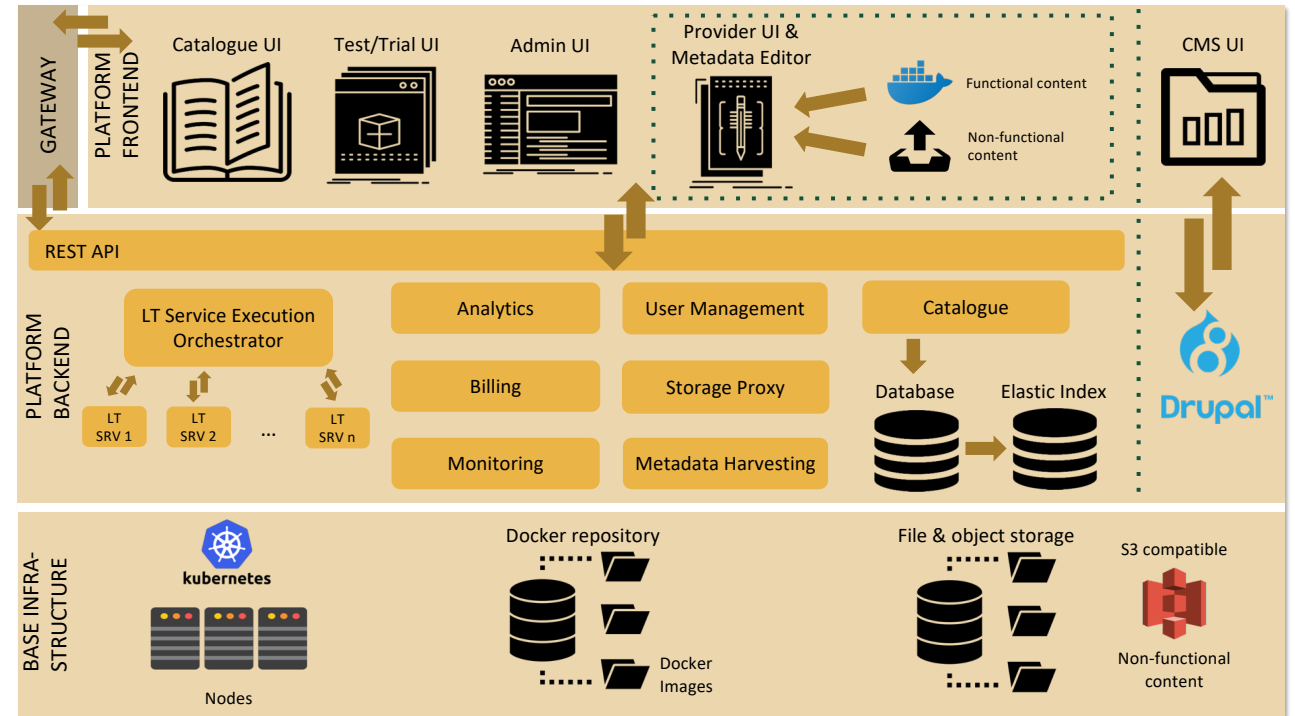
Kick-off meeting, 22/23 January 2019

Very good working relationship with all relevant initiatives

- META-NET and META
- LT Innovate
- AI4EU and its various satellite projects (HumanE AI Net, VISION etc.)
- CLAIRE, emerging AI PPP and other European AI initiatives
- ELRC, CEF AT, e-translation
- CLARIN
- Big Data Value Association
- EOSC *and others*

European Language Grid – Release 1 (June/July 2020)

- User registration, authentication, authorisation
- User categories, respective rights and policies
- LT metadata upload
- Metadata conversion and harvesting
- LT service registration, integration
- LT service try out and execution
- LT data browsing, searching, downloading
- Online documentation
- ELG Release 1 (June/July 2020):
 - 539 entries in the ELG catalogue
 - 161 functional services and tools
 - 358 data sets and language resources



Users can connect to the ELG cloud platform via ELG APIs, remote APIs, ELG GUI, Python client library, download of containers or source code.

Stakeholders and Users

Companies that

- ... *develop* Language Technologies
- ... *integrate* Language Technologies
- ... *purchase* Language Technologies

Universities and research centres that

- ... *develop* Language Technologies
- ... *use* Language Technologies

Public administrations that *purchase* or *use* Language Technologies

Other organisations (e.g., NGOs) that *purchase* or *use* Language Technologies

Funding agencies that support the development of Language Technologies



META-FORUM 2019 (8/9 October) – Brussels, Belgium

Stakeholders and Users and Collaborators

ELG Open Calls: approx. 15 pilot projects

ICT-29b research and innovation projects

AI4EU – European AI on demand platform

Other related projects: Elexis, Lynx,
MeMAD, Fandango, CEF INEA projects
(MAPA, NTEU) etc.

Core networks: META-NET, LT Innovate

Additional initiatives: CLAIRE, AI PPP, ELRC,
ECSPM, EFNIL, BDVA, NPLD, CLARIN, W3C,
NGI, RDA, EOSC, OpenAIRE etc.



Prêt-à-LLOD

Gourmet

Global Under Resourced Media Translation



META-FORUM Conference Series

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 2019: First Annual ELG Conference
Introducing the European Language Grid





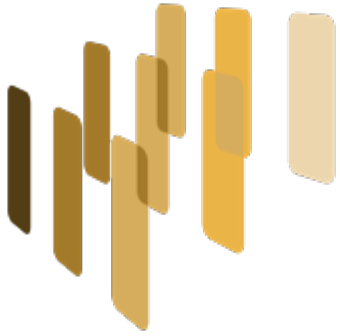
European Language Grid

META-FORUM 2019



Summary and Next Steps

- Establish ELG as the primary platform and marketplace for Language Technology in Europe.
- An initiative *from* the European LT community *for* the European LT community.
- European LT landscape is **highly fragmented**: ELG aims to provide just the right **umbrella platform**.
- Global market size by 2025 is enormous: we want the European LT community to be a **key player**.
- We want to **increase the visibility and reach** of all members of the European LT landscape.
- ELG is a long-term initiative: we will establish a **legal entity** for sustainability.
- Contribute to the long-term goal of **Digital Language Equality** in Europe by giving all our languages one virtual home and umbrella platform that collects **all** services and resources (**ELE**).
- **Next steps**: develop and populate **ELG Release 2** with functional services and resources (early 2021); develop **ELG Release 3** (early 2022); establish the **ELG legal entity** (late 2021).



European Language Grid – European Language Equality

European Language Equality

European Language Equality (ELE) – Summary



Consortium: 53 partners from all over Europe
Coordinator: ADAPT Centre (Dublin City University)

Objective: *development of a strategic research, innovation and deployment agenda to achieve digital language equality in Europe by 2030*

Runtime: 18 months – ELE and ELG will both end in June 2022

Start on 1 January 2021

Context: “Language Equality” EP Resolution

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

Selected Recommendations addressed by ELE:

25. Establish a large-scale, long-term coordinated funding programme for research, development and innovation in the field of language technologies, at European, national and regional levels, tailored specifically to Europe’s needs and demands
29. Create a European LT platform for sharing of services
27. Europe has to secure its leadership in language-centric AI

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),
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Call LANGEQ-2020

- Developing a strategic research, innovation and implementation agenda and a roadmap for achieving full digital language equality in Europe by 2030
- Funding line: PP/PA (not Horizon 2020) – Pilot Project/Preparatory Action
- Project type: Coordination and Support Action
- Budget: 1,8M€
- Maximum runtime: 18 months
- Submission deadline: 29 July 2020

| | | |
|---|---------------------------|-------------------------------------|
| Programme | Work programme part | |
| Pilot Projects and Preparatory Actions | PPPA-2020 | |
| Call | Work programme year | See budget overview |
| Developing a strategic research, innovation and implementation agenda and a roadmap for achieving full digital language equality in Europe by 2030 (PPPA-LANGEQ-2020) | | |
| <hr/> | | |
| Type of action | Closed | |
| PPPA-AG Pilot Project & Preparation Action Grant | | |
| Deadline model | Opening date | Deadline date |
| single-stage | 11 June 2020 | 29 July 2020 17:00:00 Brussels time |

Call LANGEQ-2020: Three main Components

Draw up **sustainable evidence-based strategic research agenda** and **roadmap** setting out **actions, processes, tools** and **actors** to *achieve full digital language equality of all languages* (official or otherwise) used within the EU through the effective use of LT.

1. The **agenda** should lay out the current state of LT and language equality within the EU and give a detailed picture of the desired situation needed to achieve digital language equality.
 - Map stakeholders and initiatives; liaise with them through consultations; map (AI) technologies, assess their impact on linguistic landscape; identify research areas and gaps; needs for LT.
2. The **roadmap** will then provide the path and the means needed to implement the agenda and ensure that digital language equality becomes a reality by 2030.
 - Tools, processes, actions, actors required to achieve full digital language equality by 2030; prioritisation of actions, clear milestones and accountabilities; analysis of funding requirements
3. **Dissemination** and awareness raising: events, consultations, social media etc.; ensure buy-in

European Language Equality: Positioning

- ELE is a mix of META-NET and HLP Prep plus strong collaboration with ELG
 - Focus on strategy agenda and roadmap (runtime: 18 months)
- ELE has the potential to influence the European LT landscape for the next 10-15 years:
 - Address and solve the crucial topic of digital language equality
 - Digital language equality is achieved when under-resourced languages don't exist anymore
 - Create more public visibility – for the topic, for the consortium, for the LT community
 - Strengthen and reinforce the European Language Grid
 - Strengthen the relationship of our field with the European AI community
 - Help establish LT and language-centric AI in Horizon Europe and Digital Europe Programme
- ELE and ELG are aligned so that they both end in June 2022 ...
 - ... with a large joint event: META-FORUM 2022.

European Language Equality: Concept




- Key goal: development of the strategic agenda and roadmap
- Input to be prepared by the project and collected from all relevant stakeholders
- Close collaboration between ELE and ELG
 - Integration of (almost) all ELG National Competence Centres (NCCs) and the ELG Language Technology Council (LTC)
 - Make use of ELG platform for various tasks in ELE
- Update META-NET White Papers
- Organisation of events, consultations, surveys
- Large, all-encompassing consortium: partners from industry, research and many different pan-European networks, initiatives and associations – 53 partners in total



European Language Equality: Consortium

- **5 core partners:** Adapt Centre, DFKI, Charles University, ILSP, University of the Basque Country
- **9 networks, associations, initiatives:** LT Innovate (via Crosslang), EFNIL, ELEN, ECSPM, CLARIN, CLAIRE (via University of Leiden), NEM (via Eurescom), LIBER, Wikimedia
- **9 companies:** Tilde, ELDA, Expert System, Sail Labs, Kantan MT (via Xcelerator MT), Pangeanic, Semantic Web Company, Ontotext (via Sirma AI), SAP
- **30 research organisations:** University of Vienna, University of Antwerp, Institute for Bulgarian Language, University of Zagreb, University of Copenhagen, University of Tartu, University of Helsinki, CNRS, Research Institute for Linguistics, Institute for Icelandic Studies, FBK, University of Latvia, Institute of the Lithuanian Language, Luxembourg Institute of Technology, University of Malta, University of Utrecht, Language Council of Norway, Polish Academy of Sciences, University of Lisbon, Romanian Academy, University of Cyprus, Slovak Academy of Sciences, Jozef Stefan Institute, Barcelona Supercomputing Center, Royal Institute of Technology, University of Zurich, University of Sheffield, University of Vigo, Bangor University, University of Belgrade

European Language Equality: Approach

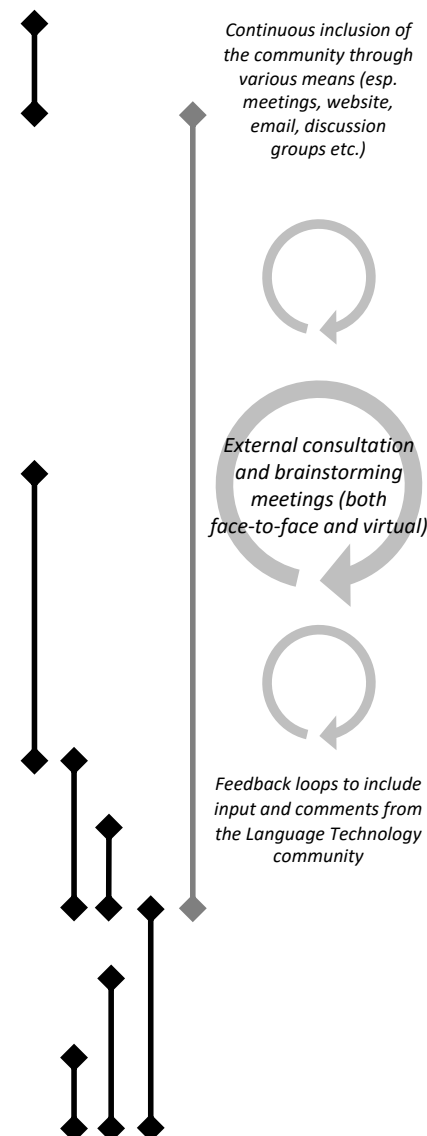
- Main result: Strategic Agenda and Roadmap – all deliverables provide input for this main report:
 - Detailed description of the *European Language Equality Programme*
- Research partners to produce updates of the 32 META-NET White Papers (one deliverable each).
- Networks and initiatives to produce a report (one deliverable each) in which they collect, consolidate and present their own position, needs, wishes, demands, visions etc. 
- Companies to produce various technical deep dives for the different technology areas.
- Several additional reports to be produced, primarily by the core partners.
- Reports to be prepared in a more or less autonomous way based on templates – however, they will include many different public consultation meetings, roundtables, online surveys etc.
- Reports to be used as input for the strategic agenda and roadmap.
- Total number of languages taken into account in ELE: 77.

Digital collaboration and document management infrastructure (D5.1)

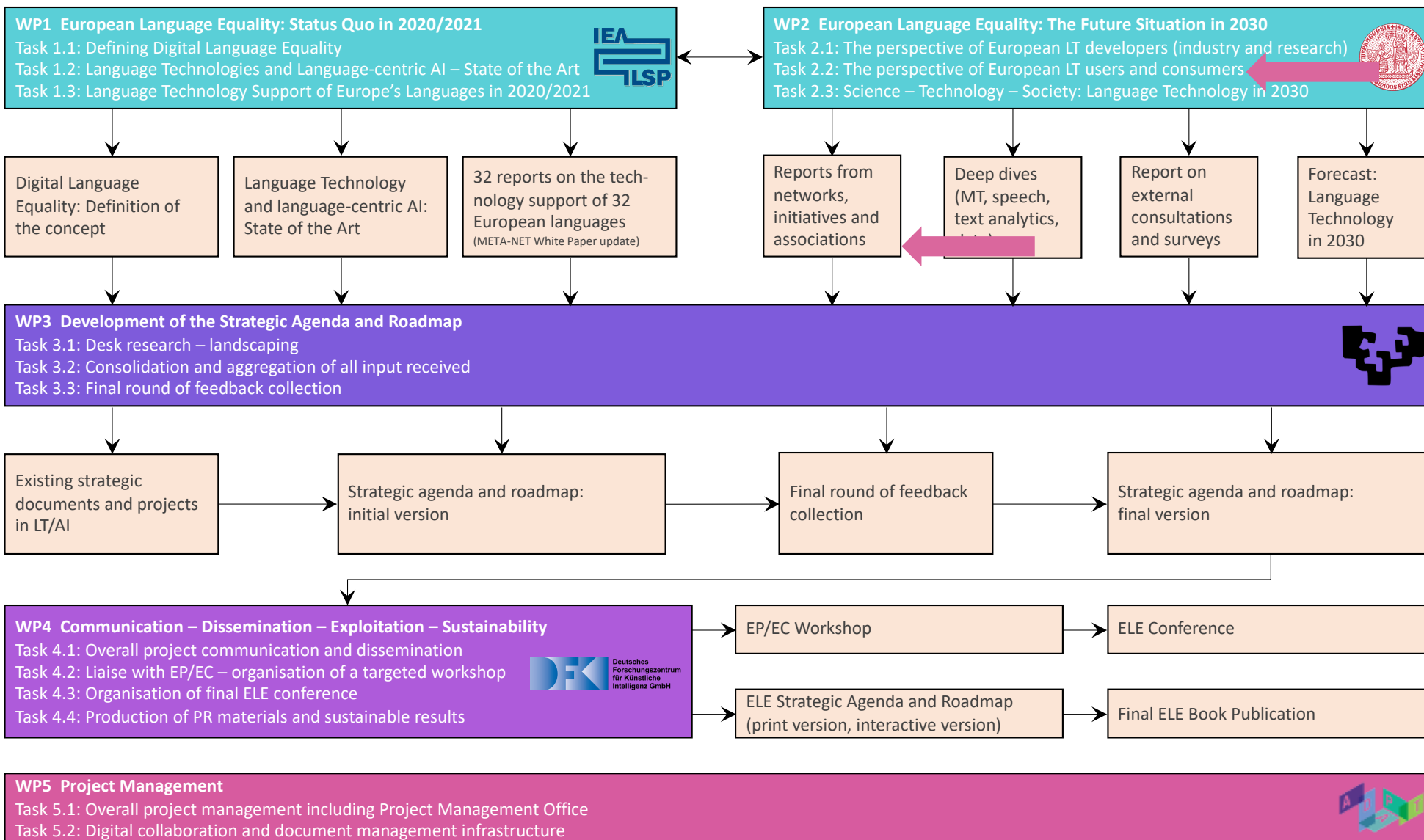
Project mgmt. report (D5.2)

Project mgmt. report (D5.3)
End of the ELE project

| | |
|-----|---|
| M1 | ELE kick-off meeting |
| M2 | |
| M3 | Digital Language Equality – preliminary definition (D1.1) Promotional materials and PR package (D4.1); project infrastructure (D5.1) |
| M4 | Specification of the consultation process including templates, surveys, events etc. (D2.1) |
| M5 | |
| M6 | Communication and dissemination plan (D4.2) |
| M7 | |
| M8 | |
| M9 | Report on the state of the art in Language Technology and Language-centric AI (D1.2) |
| M10 | |
| M11 | |
| M12 | |
| M13 | Digital Language Equality – full specification of the concept (D1.3) |
| M14 | Reports on 32 European languages (D1.4-D1.35) Reports from relevant European initiatives (D2.2-D2.12); technology deep dives (D2.13-D2.16) |
| M15 | Strategic agenda including roadmap – initial version (D3.2) Report on all external consultations and surveys (D2.17) |
| M16 | Database and dashboard with the empirical data collected in D1.4-D1.35 (and others) (D1.36) Report on the state of Language Technology in 2030 (D2.18) |
| M17 | Report on the final round of feedback collection (D3.3) |
| M18 | Strategic agenda including roadmap – final version (D3.4) ELE EP/EC workshop (D4.3); ELE conference (D4.4); ELE book publication (D4.6) |



Timeline

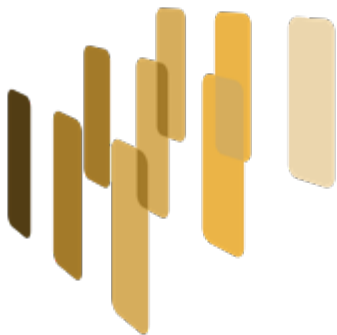


Task 2.2 The perspective of European LT users and consumers (DCU, DFKI, CUNI, ILSP, EHU, EFNIL, ELEN, ECSPM, ERSCM, LIBER, WMD; M1-M15) T2.2 aims at collecting and analysing the views of European LT users and consumers as the final beneficiaries of LTs with regard to the necessary and desired developments supporting digital equality for all European languages over the next decade; this task will require engagement with individuals, representative public bodies and government units, organisations and businesses, including SMEs as well as larger companies, that use LTs. In close collaboration with T2.1 and T2.3, T2.2 will investigate the expectations, anticipated developments, needs and wishes of this diverse group of end-user stakeholders, to make sure that their voices play a decisive role in the pursuit of full digital language equality supported by LTs. The task will also explore the factors that can promote language equality in the users' and consumers' view, especially with regard to encouraging the uptake of missing or poor LTs that can solve real communication problems for the members of all European language communities. As part of this effort, special attention will be paid to the speakers of lesser-served languages, particularly those that face digital extinction or neglect, eliciting from the LT users of such language communities indications of necessary or desirable developments that are expected to put their own languages on an equal footing with the dominant ones by 2030; a complementary focus will consider the perceived obstacles that hinder full digital language equality, so that effective remedial action can be promptly taken in the appropriate areas. T2.2 will follow the same approach as T2.1, i.e., based on surveys and structured templates several reports will be produced by the relevant ELE consortium members who represent relevant stakeholder groups. Additional feedback will be collected from external stakeholders through surveys who will be included in the different deliverables to be produced by T2.2. The reports will complement the ones from T2.1. They will be as inclusive as possible, ensuring widest possible coverage, to build a comprehensive and accurate picture.

D2.7-D2.12 will report on the input from the representatives of user- and LT consumer-related networks and associations with regard to the needs and visions of their members for digital language equality in 2030 (all: M14; R+OTH; PU), as follows: D2.7 ECSPM (ECSPM) [...]

Summary

- ELE is a new EU project that starts in January 2021 and ends in June 2022
- Its goal is the development of the *Strategic Research, Innovation and Implementation Agenda and a Roadmap for achieving full Digital Language Equality in Europe by 2030*
- Consortium with 53 partners covering all European countries and all major initiatives
- Many consultation events, roundtables, stakeholder meetings planned
- Close collaboration with its sister project European Language Grid (ELG)
- Intended overlap between ELE and ELG consortium, ELG NCCs and META-NET members
- Firmly establish LT and language-centric AI in Horizon Europe and Digital Europe Programme
- Please participate in our stakeholder events, surveys and questionnaires!
- ELE and ELG will finish up with a joint META-FORUM 2022 in June 2022.



European Language Grid – European Language Equality

Thank you!



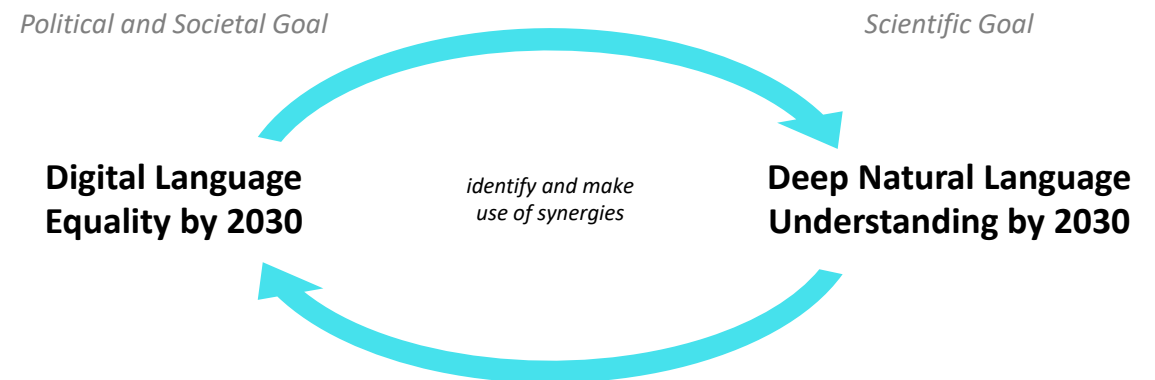
The European Language Grid has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement № 825627 (ELG).

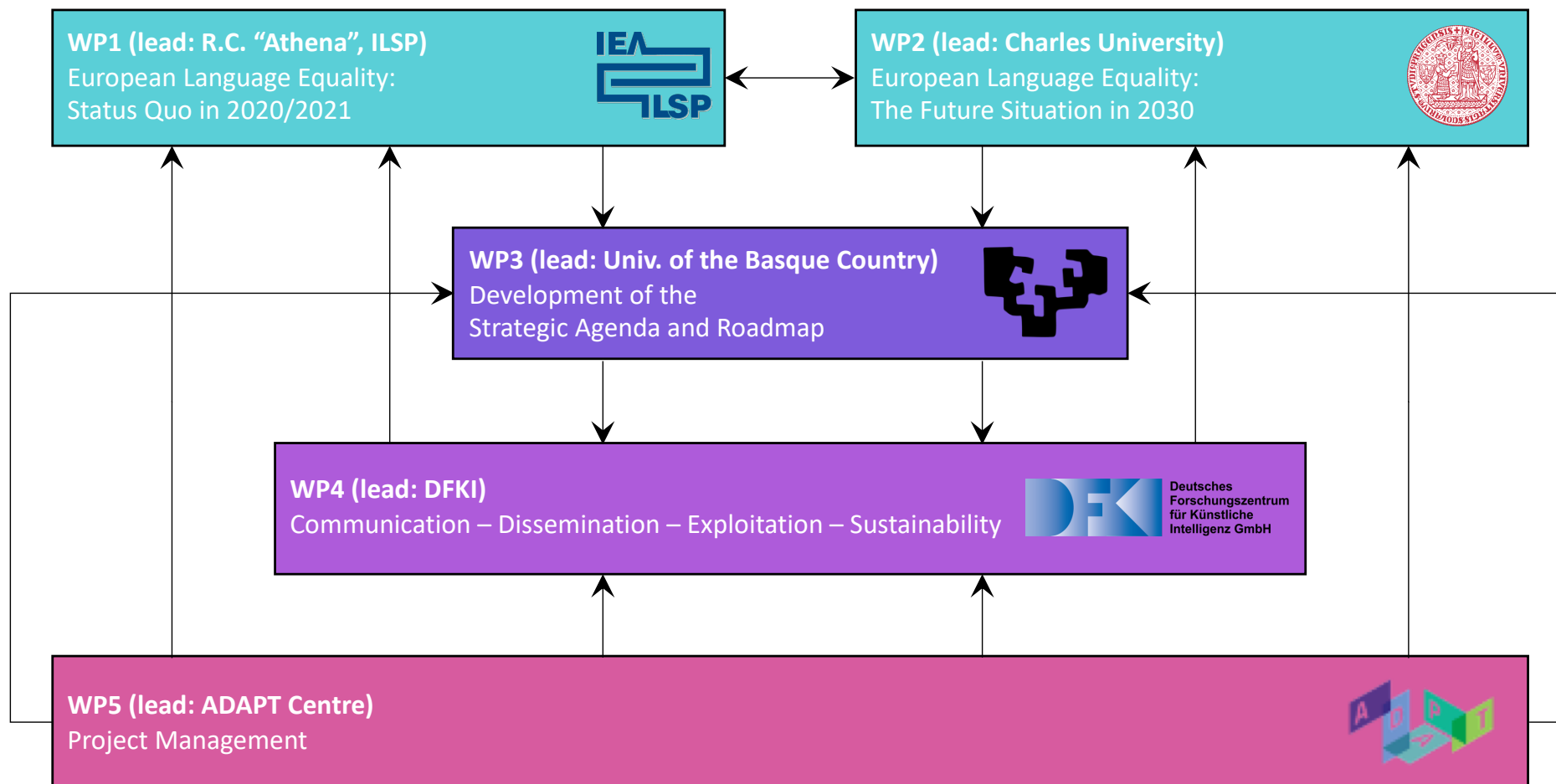
Georg Rehm (DFKI GmbH, Germany), Katrin Marheinecke (DFKI GmbH, Germany), John Judge (ADAPT Centre, Ireland)

09-12-2020 ECSPM Symposium – Towards Digital Language Equality in Europe
<http://www.european-language-grid.eu>

ELE Strategic Agenda and Roadmap: Key Components

- KC1: Consolidated Vision and Definition of Digital Language Equality
 - Overall scientific vision: “Deep Natural Language Understanding by 2030”
- KC2: Stakeholders and Initiatives
- KC3: Relevant Technologies – Needs for Language Technologies across all Sectors
- KC4: Roadmap
- KC5: Innovation and Involvement of Industry (Exploitation)
- KC6: Implementation of the European Language Equality Programme
- KC7: Governance Structure
- KC8: Responsible Research and Innovation





**Work
Packages**

| | | | Partners and informants for the language | | |
|----------------|----------------------|------------------------------|--|-----------------------------------|----------------------------|
| Language | Official EU language | META-NET White Paper update? | Primary partner | Secondary partners and informants | |
| Basque | no | yes | Univ. of the Basque Country | ELEN | |
| Bulgarian | yes | yes | Bulgarian Academy of Sciences | EFNIL | |
| Catalan | no | yes | Barcelona Supercomputing Center | Univ. of the Basque Country | ELEN ECSPM (through FUEN) |
| Croatian | yes | yes | University of Zagreb | EFNIL | ECSPM (through FUEN) |
| Czech | yes | yes | Charles University | ECSPM (through FUEN) | |
| Danish | yes | yes | University of Copenhagen | EFNIL | |
| Dutch | yes | yes | Utrecht University | University of Antwerp | EFNIL ELEN |
| English | yes | yes | University of Sheffield | DCU | EFNIL |
| Estonian | yes | yes | University of Tartu | EFNIL | |
| Finnish | yes | yes | University of Helsinki | EFNIL | |
| French | yes | yes | CNRS | EFNIL | |
| Galician | no | yes | University of Vigo | ELEN | |
| German | yes | yes | DFKI | University of Vienna | University of Zurich EFNIL |
| Greek | yes | yes | R.C. "Athena", ILSP | UCY | EFNIL |
| Hungarian | yes | yes | Research Institute for Linguistics | EFNIL | ECSPM (through FUEN) |
| Icelandic | no | yes | Árni Magnússon Institute for Icelandic Studies | EFNIL | |
| Irish | yes | yes | DCU | EFNIL | ELEN |
| Italian | yes | yes | FBK | EFNIL | ECSPM (through FUEN) |
| Latvian | yes | yes | IMCS, University of Latvia | Tilde | EFNIL |
| Lithuanian | yes | yes | Institute of the Lithuanian Language | EFNIL | |
| Luxembourgish | no | <i>new</i> | Luxembourg Institute of Science and Technology | EFNIL | |
| Maltese | yes | yes | University of Malta | EFNIL | |
| Norwegian | no | yes | Language Council of Norway | EFNIL | |
| Polish | yes | yes | Polish Academy of Sciences | EFNIL | ECSPM (through FUEN) |
| Portuguese | yes | yes | University of Lisbon | EFNIL | |
| Romanian | yes | yes | Romanian Academy | EFNIL | |
| Serbian | no | yes | Belgrade University | EFNIL | |
| Slovak | yes | yes | Slovak Academy of Sciences | EFNIL | |
| Slovenian | yes | yes | Jozef Stefan Institute | EFNIL | |
| Spanish | yes | yes | Barcelona Supercomputing Center | Univ. of the Basque Country | |
| Swedish | yes | yes | KTH Royal Institute of Technology | EFNIL | ELEN |
| Welsh | no | yes | Bangor University | ELEN | |
| Alsatian-Platt | no | – | ELEN | | |
| Aragonese | no | – | ELEN | | |
| Arberesh | no | – | ELEN | | |
| Arman | no | – | ELEN | ECSPM (through FUEN) | |

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|----------------------|----|---|----------------------|----------------------|
| Aromanian | no | – | ECSPM (through FUEN) | |
| Asturian | no | – | ELEN | |
| Breton | no | – | ELEN | ECSPM (through FUEN) |
| Carpathian-German | no | – | ECSPM (through FUEN) | |
| Carpato-Rusyn | no | – | ECSPM (through FUEN) | |
| Comish | no | – | ELEN | |
| Corsican | no | – | ELEN | |
| Franco Provençal | no | – | ELEN | |
| Frisian | no | – | ELEN | ECSPM (through FUEN) |
| Friulian | no | – | ELEN | |
| Gallo | no | – | ELEN | |
| Griko | no | – | ELEN | |
| Indigenous languages | no | – | ELEN | |
| Karelian | no | – | ELEN | |
| Kashubian | no | – | ELEN | ECSPM (through FUEN) |
| Ladin | no | – | ECSPM (through FUEN) | |
| Latgalian | no | – | ELEN | |
| Lezghin | no | – | ECSPM (through FUEN) | |
| Macedonian | no | – | ECSPM (through FUEN) | |
| Masurian | no | – | ECSPM (through FUEN) | |
| Meskhétian (Ahiska) | no | – | ECSPM (through FUEN) | |
| Mirandese | no | – | ELEN | |
| Moldovians | no | – | ECSPM (through FUEN) | |
| Occitan | no | – | ELEN | ECSPM (through FUEN) |
| Pomak | no | – | ECSPM (through FUEN) | |
| Roma | no | – | ECSPM (through FUEN) | |
| Saami | no | – | ELEN | |
| Sardinian | no | – | ELEN | |
| Scottish Gaelic | no | – | ELEN | |
| Setu | no | – | ELEN | |
| Slovene | no | – | ELEN | ECSPM (through FUEN) |
| Sorbian | no | – | ELEN | |
| Tatar | no | – | ELEN | |
| Tornedalian Finnish | no | – | ELEN | |
| Valencian | no | – | ELEN | |
| Voru | no | – | ELEN | |
| Yiddish | no | – | ELEN | |

Languages 2/2

| No. | Deliverable name | WP | Short name | Type | Diss. level | Date |
|-------|---|----|------------|-------|-------------|------|
| D1.1 | Digital Language Equality – preliminary definition | 1 | DCU | R | Public | 3 |
| D1.2 | Report on the state of the art in Language Technology and Language-centric AI | 1 | EHU | R | Public | 9 |
| D1.3 | Digital Language Equality – full specification of the concept | 1 | DCU | R | Public | 13 |
| D1.4 | Report on Basque | 1 | EHU | R+OTH | Public | 14 |
| D1.5 | Report on Bulgarian | 1 | IBL | R+OTH | Public | 14 |
| D1.6 | Report on Catalan | 1 | BSC | R+OTH | Public | 14 |
| D1.7 | Report on Croatian | 1 | FFZG | R+OTH | Public | 14 |
| D1.8 | Report on Czech | 1 | CUNI | R+OTH | Public | 14 |
| D1.9 | Report on Danish | 1 | UCPH | R+OTH | Public | 14 |
| D1.10 | Report on Dutch | 1 | UU | R+OTH | Public | 14 |
| D1.11 | Report on English | 1 | USFD | R+OTH | Public | 14 |
| D1.12 | Report on Estonian | 1 | UTART | R+OTH | Public | 14 |
| D1.13 | Report on Finnish | 1 | UHEL | R+OTH | Public | 14 |
| D1.14 | Report on French | 1 | CNRS | R+OTH | Public | 14 |
| D1.15 | Report on Galician | 1 | UVIGO | R+OTH | Public | 14 |
| D1.16 | Report on German | 1 | DFKI | R+OTH | Public | 14 |
| D1.17 | Report on Greek | 1 | ILSP | R+OTH | Public | 14 |
| D1.18 | Report on Hungarian | 1 | NYTI | R+OTH | Public | 14 |
| D1.19 | Report on Icelandic | 1 | SAM | R+OTH | Public | 14 |
| D1.20 | Report on Irish | 1 | DCU | R+OTH | Public | 14 |
| D1.21 | Report on Italian | 1 | FBK | R+OTH | Public | 14 |
| D1.22 | Report on Latvian | 1 | IMCS | R+OTH | Public | 14 |
| D1.23 | Report on Lithuanian | 1 | LKI | R+OTH | Public | 14 |
| D1.24 | Report on Luxembourgish | 1 | LIST | R+OTH | Public | 14 |
| D1.25 | Report on Maltese | 1 | UOM | R+OTH | Public | 14 |

Deliverables
1/3

| | |
|-------|---|
| D1.26 | Report on Norwegian |
| D1.27 | Report on Polish |
| D1.28 | Report on Portuguese |
| D1.29 | Report on Romanian |
| D1.30 | Report on Serbian |
| D1.31 | Report on Slovak |
| D1.32 | Report on Slovenian |
| D1.33 | Report on Spanish |
| D1.34 | Report on Swedish |
| D1.35 | Report on Welsh |
| D1.36 | Database and dashboard with the empirical data collected in D1.4-D1.35 (and others) |
| D2.1 | Specification of the consultation process including templates, surveys, events etc. |
| D2.2 | Report from CLAIRE |
| D2.3 | Report from CLARIN |
| D2.4 | Report from LT Innovate |
| D2.5 | Report from META-NET |
| D2.6 | Report from ELG |
| D2.7 | Report from ECSPM |
| D2.8 | Report from EFNIL |
| D2.9 | Report from ELEN |
| D2.10 | Report from LIBER |
| D2.11 | Report from NEM |
| D2.12 | Report from Wikipedia |
| D2.13 | Technology deep dive Machine Translation |
| D2.14 | Technology deep dive Speech Technologies |
| D2.15 | Technology deep dive Text Analytics and Natural Language Understanding |

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|---|--------|-------|--------|----|
| 1 | LCNOR | R+OTH | Public | 14 |
| 1 | PAS | R+OTH | Public | 14 |
| 1 | ULIS | R+OTH | Public | 14 |
| 1 | ICIA | R+OTH | Public | 14 |
| 1 | FILFUB | R+OTH | Public | 14 |
| 1 | JULS | R+OTH | Public | 14 |
| 1 | JSI | R+OTH | Public | 14 |
| 1 | BSC | R+OTH | Public | 14 |
| 1 | KTH | R+OTH | Public | 14 |
| 1 | BNGR | R+OTH | Public | 14 |
| 1 | ILSP | R+OTH | Public | 16 |
| 2 | CUNI | R | Public | 4 |
| 2 | ULEID | R+OTH | Public | 14 |
| 2 | CLARIN | R+OTH | Public | 14 |
| 2 | CRSLNG | R+OTH | Public | 14 |
| 2 | CUNI | R+OTH | Public | 14 |
| 2 | DFKI | R+OTH | Public | 14 |
| 2 | ECSPM | R+OTH | Public | 14 |
| 2 | EFNIL | R+OTH | Public | 14 |
| 2 | ELEN | R+OTH | Public | 14 |
| 2 | LIBER | R+OTH | Public | 14 |
| 2 | ERSCM | R+OTH | Public | 14 |
| 2 | WMD | R+OTH | Public | 14 |
| 2 | TILDE | R | Public | 14 |
| 2 | SAIL | R | Public | 14 |
| 2 | EXPSYS | R | Public | 14 |

Deliverables 2/3

| | | | | | | |
|-------|--|---|------|-------|--------------|----|
| D2.16 | Technology deep dive Data | 2 | SWC | R | Public | 14 |
| D2.17 | Report on all external consultations and surveys | 2 | CUNI | R | Public | 15 |
| D2.18 | Report on the state of Language Technology in 2030 | 2 | CUNI | R | Public | 16 |
| D3.1 | Report on existing strategic documents and projects in LT/AI | 3 | EHU | R | Public | 3 |
| D3.2 | Strategic agenda including roadmap – initial version | 3 | DFKI | R | Public | 15 |
| D3.3 | Report on the final round of feedback collection | 3 | EHU | R | Public | 17 |
| D3.4 | Strategic agenda including roadmap – final version | 3 | DFKI | R | Public | 18 |
| D4.1 | Promotional materials and PR package | 4 | DFKI | R+OTH | Public | 3 |
| D4.2 | Communication and dissemination plan | 4 | DFKI | R | Public | 6 |
| D4.3 | Report on EP/EC workshop | 4 | DFKI | R | Public | 18 |
| D4.4 | Report on ELE conference | 4 | DFKI | R | Public | 18 |
| D4.5 | Strategic agenda and roadmap (print version, online version) | 4 | DFKI | R | Public | 18 |
| D4.6 | ELE book publication | 4 | DFKI | R | Public | 18 |
| D5.1 | Digital collaboration and document management infrastructure | 5 | DCU | R+OTH | Confidential | 3 |
| D5.2 | Project management report (interim report) | 5 | DCU | R | Confidential | 9 |
| D5.3 | Project management report (final report) | 5 | DCU | R | Confidential | 18 |

Deliverables

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