



EUROPEAN LANGUAGE EQUALITY

META  NET
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Demands, Needs and Gaps of the European LT Community

Natalia Resende (Dublin City University)
natalia.resende@adaptcentre.ie

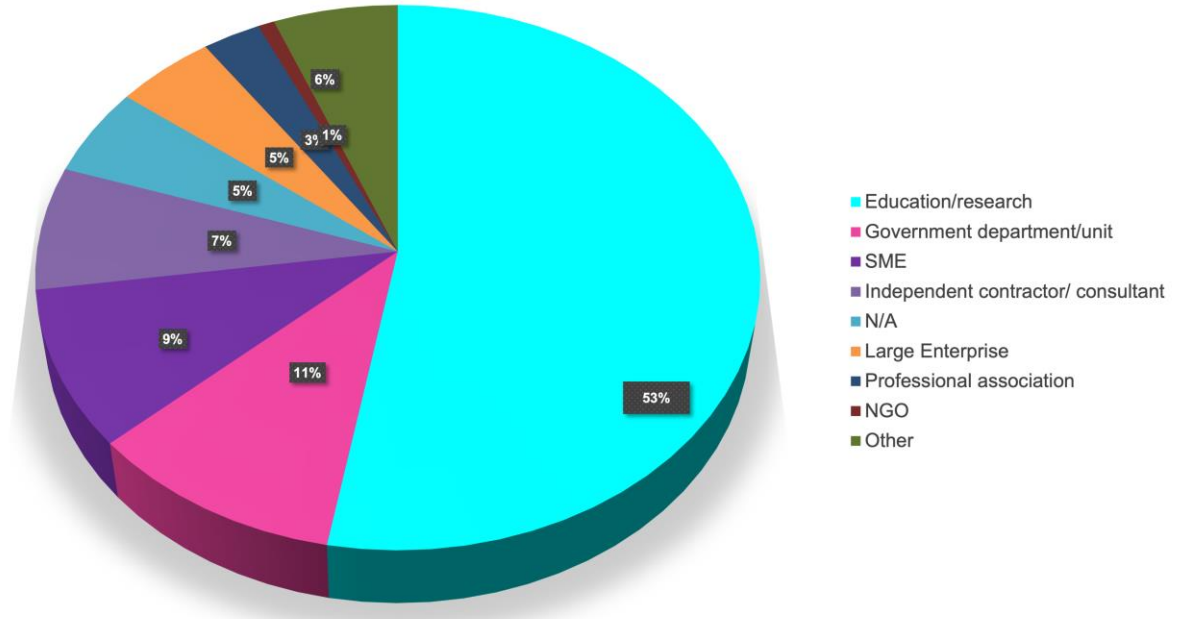
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Consultation process: LT users survey

- **Consultation process through an online survey** with the objective to investigate expectations, needs and wishes of stakeholders, to ensure their voices play a decisive role in the pursuit of full DLE supported by LTs
- ECSPM, EFNIL, ELEN, LIBER, NEM, Wikipedia collected answers and prepared reports (D2.7-D2.12) with analysis and interpretation of results. **Interviews were carried out** in order to collect further information

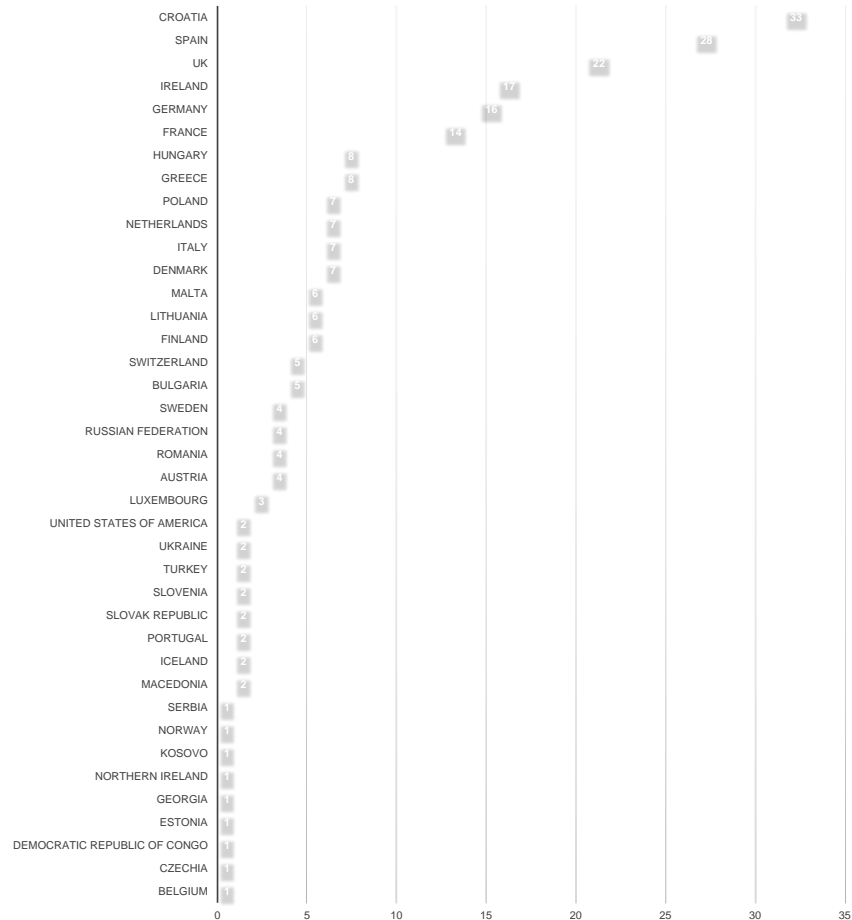
Consolidated Results: Sectors represented in the survey

- The survey obtained a total of 246 responses.
- Contributions came from a diverse range of economic sectors and professional activities, but most of the respondents work in the Education and Research sector with 130 responses (53%)



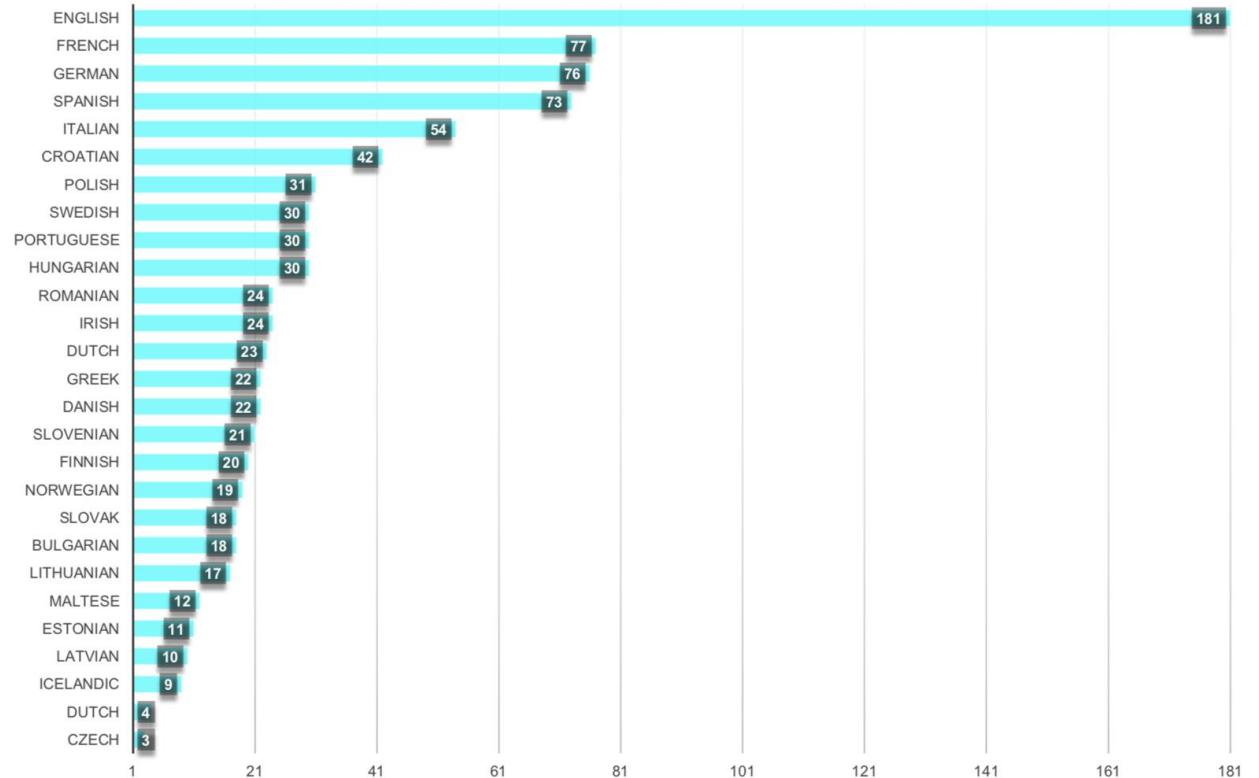
Consolidated Results: Countries represented in the survey

- Contributions to the survey came from all over Europe
- Many respondents from Croatia due to the dissemination of the survey at a conference held in Croatia
- Some responses came from people based outside European countries such as the USA, Democratic Republic of Congo and Russian Federation



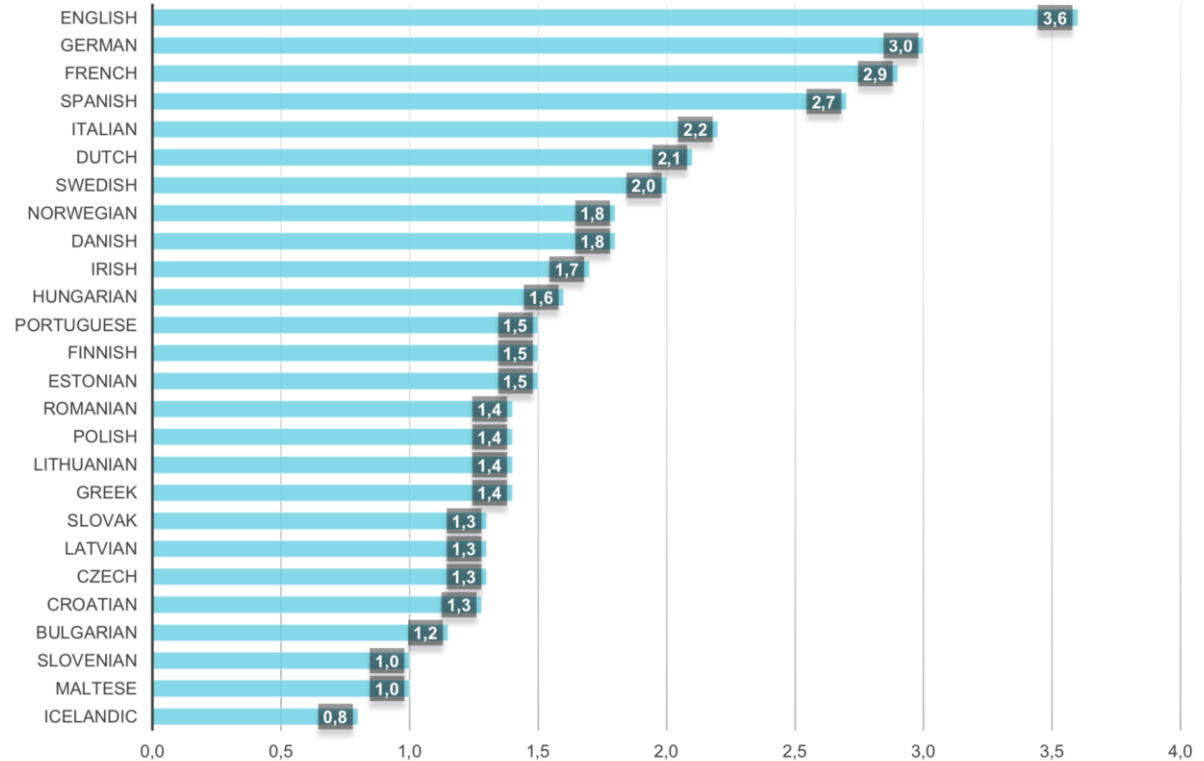
Consolidated Results: Languages respondents work with

- The survey indicated that 74% of the respondents **work with English**, followed by a well balanced group of languages composed by **German with 31%**, **French 31%** and **Spanish 30%**



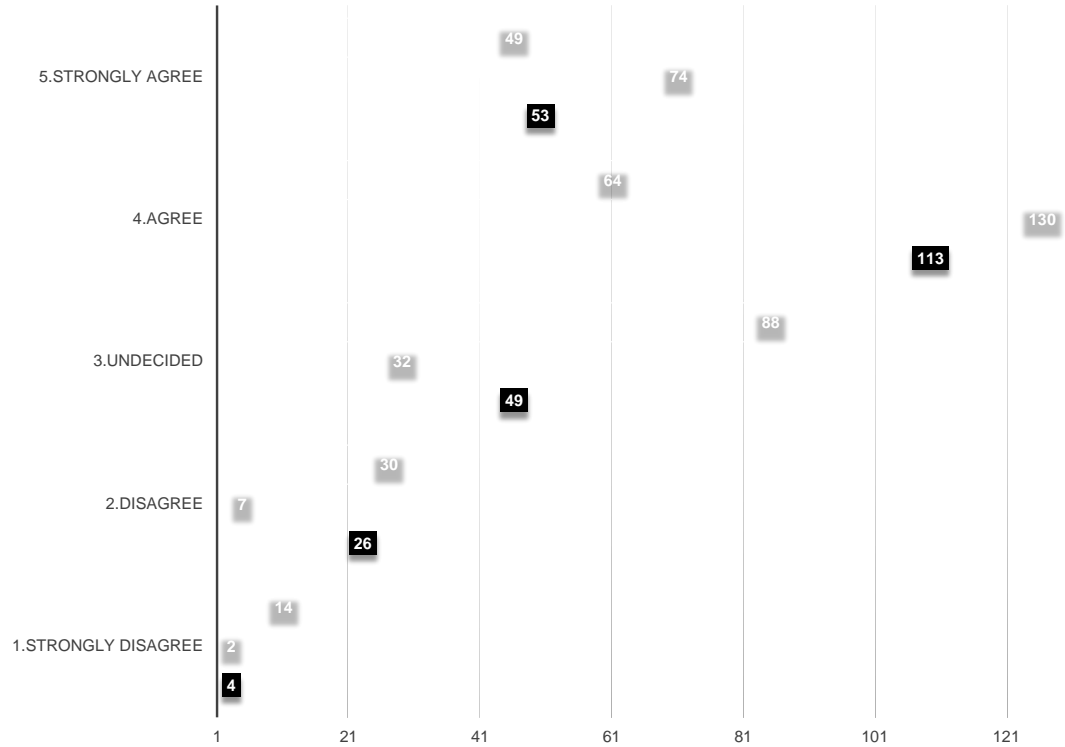
Consolidated Results: Level of LT support by language

- Evaluation based on a 4-point Likert scale
- **English is very well supported**, followed by **German, French and Spanish**
- All other European languages were considered to have either poor support or very poor support



Consolidated Results: Predictions and Visions for the Future

- 83% (204) strongly agree or agree that there will be a wider range of language tools for European languages
- 68% (166) strongly agree or agree that in the next 10 years there will be higher-quality tools for European languages, including minority languages
- 46% (113) strongly agree or agree that LTs will help to prevent linguistic loss



In the next 10 years, language technology tools will help prevent the loss of linguistic diversity

In the next 10 years, there will be a wider range of language tools for European Languages

In the next 10 years, there will be higher-quality language tools that deal with all the languages that concern me, including minority languages

Consolidated Results: Predictions and Visions for the Future

Answers to open-ended question: *Which tools or applications that could potentially use LT do you want to see that are not currently available for the languages you work with (we welcome any suggestion, even ideas that are not possible with current technology)?*

- **Higher-quality tools** for certain languages such as “better parsing of Danish than currently available”
- **Availability of tools** that do not yet exist for some languages but exist for other languages such as “*speech recognition for Welsh*”, “*speech recognition for Catalan, better grammar checking for Catalan*”, “*spell check for Irish*”, “*more reliable speech recognition for Greek*”, “*A good Georgian-English Translator*” and “*better MT for Croatian language*”.

EU Citizen Survey

- Targeted EU citizens with the aim of taking into account their opinions, individual needs, wishes, and general demands, and more importantly to make sure that their voices play a decisive role in the pursuit of full digital language equality supported by LTs
- Short survey with 12 questions disseminated in 28 countries and 86 European languages through Lucid market services as well as the ELE consortium
- Survey setup in *QuestionPro* online survey platform
- Collected a total of 21455 completed responses (closed on May 1st 2022)
- **Preliminary results: 10330 responses analysed so far (17788 data points)**

Preliminary results

Respondents' profiles:

Age group	%	Education	%
25-34	28	High school	35
35-44	24	Bachelor's degree	24
18-24	21	Master's degree	16
45-54	15	Vocational training	10
55-64	8	Some high school	8
65+	4	Ph.D. or higher	5
Prefer not to say	0	Prefer not to say	2

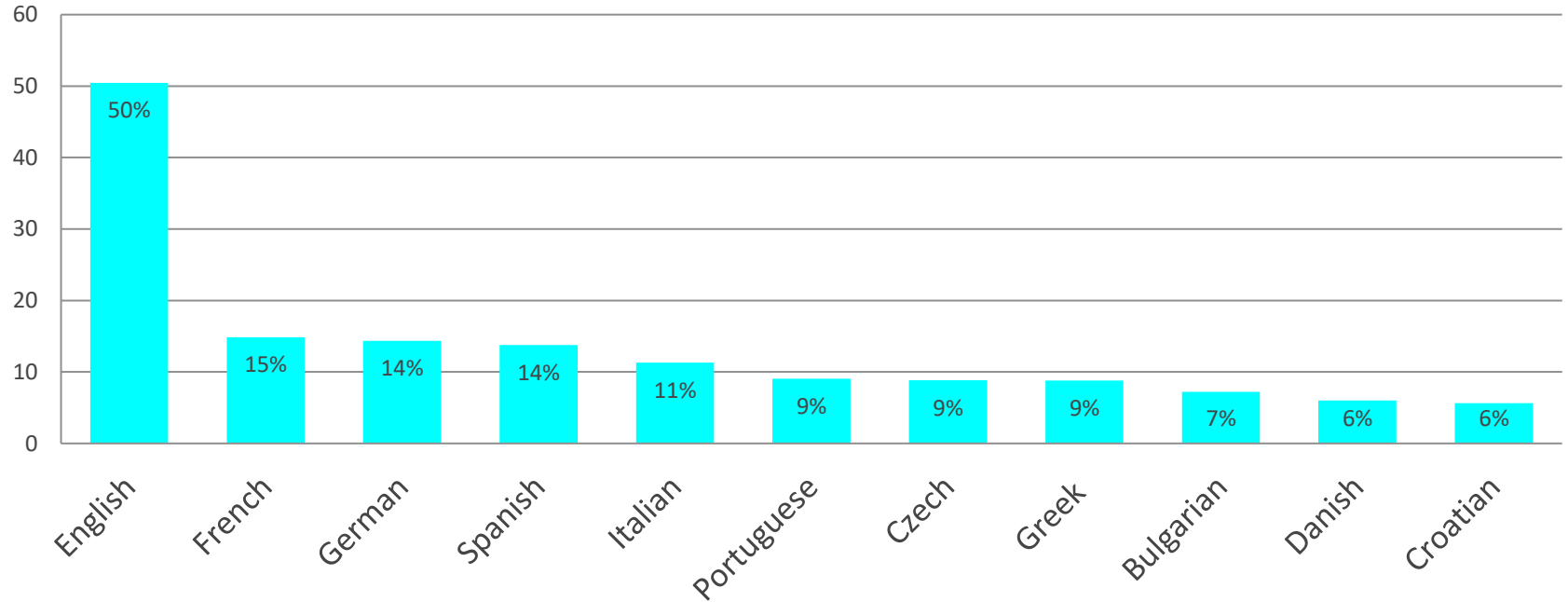
Preliminary results

Before we start, it is important for us to find out what you already know about Language Technology. Please select all the words and terms you are familiar with or that you are able to understand right away:

Terms	%
Machine Translation	57
Chatbot	48
Smart personal assistants	44
Natural Language Understanding	42
Language Technology	41
Speech Processing	39
Information Retrieval	38
Natural Language Processing	33
Language-centric Artificial Intelligence	33
Conversational Agents	24
I am not familiar with any of these terms	13

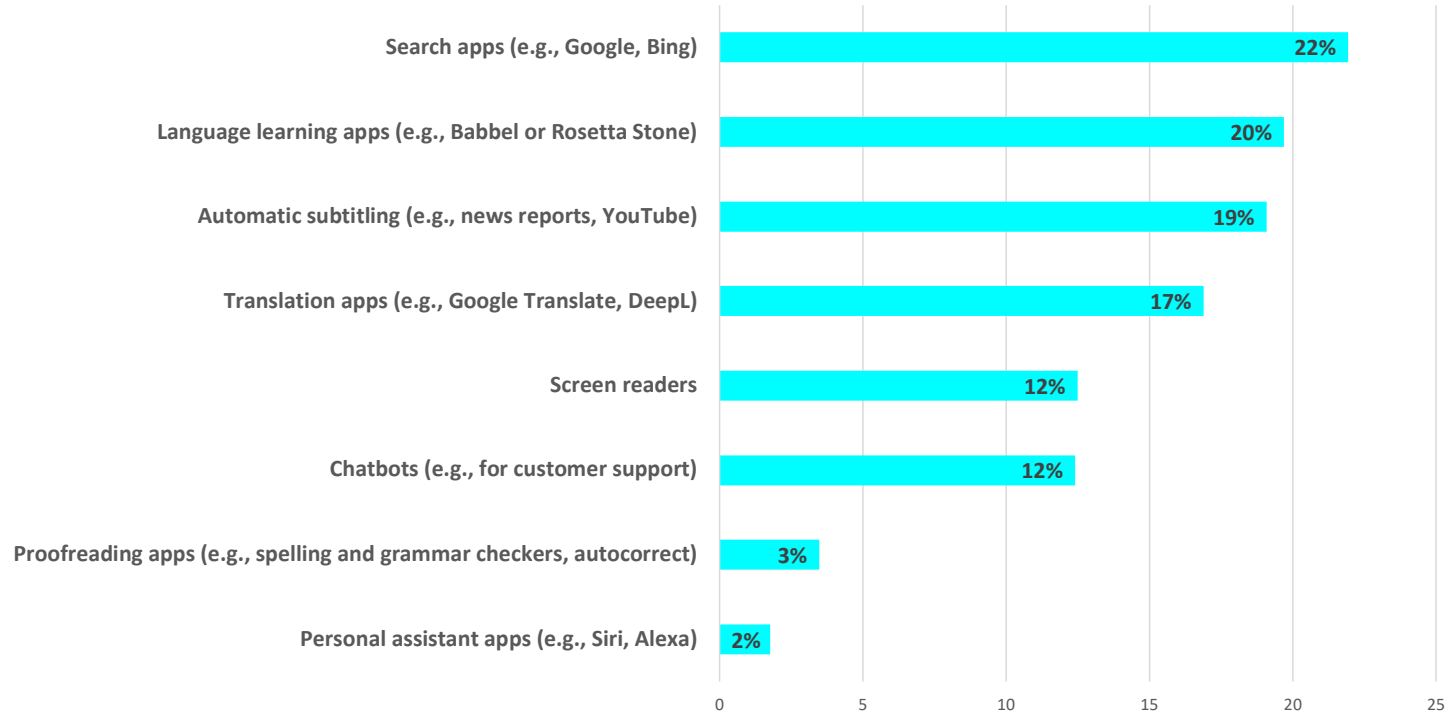
Preliminary results

What languages do you use in your everyday life (professionally and socially)? Please select as many as apply.



Preliminary Results

- The three most used tools in this dataset are the **search tools** and the **language learning tools**. **Personal assistant tools** are the least used.



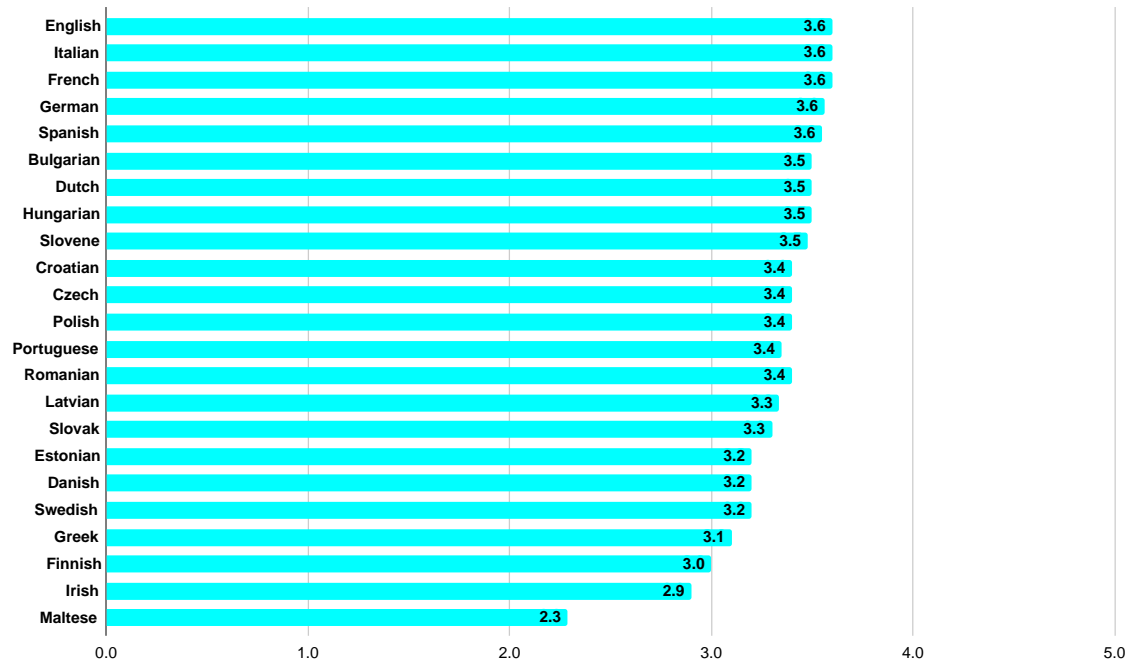
Preliminary results

Please rate all the types of software applications, apps, tools or devices you use for “your language(s)”. Tools you do not use for “your language(s)” do not need to be rated.

Evaluation based on a 5-point Likert scale

- 1) Search apps (e.g., Google, Bing)
- 2) Personal assistant apps (e.g., Siri, Alexa)
- 3) Proofreading apps (e.g., spelling and grammar checkers, autocorrect)
- 4) Translation apps (e.g., Google Translate, DeepL)
- 5) Automatic subtitling (e.g., news reports, YouTube)
- 6) Language learning apps (e.g., Babbel or Rosetta Stone)
- 7) Chatbots (e.g., for customer support)
- 8) Screen readers

Overall scores per language



Preliminary results

What would be the top 3 advantages of improving apps and tools for all languages? Please select the three most important advantages in your opinion.

Answers	%
Improve communication between speakers of different languages	49
Increase peoples' exposure to these languages	44
Increase the number of speakers of those languages, including minority and regional languages	31
Prevent minority or regional languages from digital extinction	31
Improve literacy in minority or regional languages	24
Increase people's engagement with social, leisure and professional activities in their own languages	23
Improve the communication capabilities of people with disabilities	20
Improve trade in countries where those languages are spoken	18

Conclusions

- ✓ Both surveys shows that English is regarded as the best supported language, followed at some distance by a small group: German, French, Spanish, Italian
- ✓ LT survey shows respondents' concern regarding the differences in technological support between European languages, specifically the poor technological support of minority, regional and lesser-used languages
- ✓ The preliminary results of the EU citizen survey show differences in support are mainly reflected in differences in quality and performance of tools between the languages
- ✓ LT users are aware of the importance of LTs for communication between speakers of different languages, for increasing the number of speakers of smaller languages as well as for the help with the preservation of cultural heritage and enhance its visibility



European Language Grid
European Language Equality



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