

European LT Market – CEF Study

Approach and Observations

- Background: SMART 2016/0103 contract supporting the EC in CEF AT: 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€ – 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 specific niches, sectors and languages

Recommendations

- Europe is strong in research and innovation, 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



	2018	2019	2020
Germany	197M€	217M€	240M€
UK	189M€	209M€	232M€
France	88M€	96M€	105M€
Netherlands	55M€	60M€	66M€
Rest of EU 28	249M€	277M€	305M€
European LT Market Forecast 2018-2020	778M€	859M€	948M€

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Final study report on CEF Automated Translation value proposition in the context of the European LT market/ecosystem

FINAL REPORT
A study prepared for the European Commission
DG Communications Networks, Content & Technology
by:

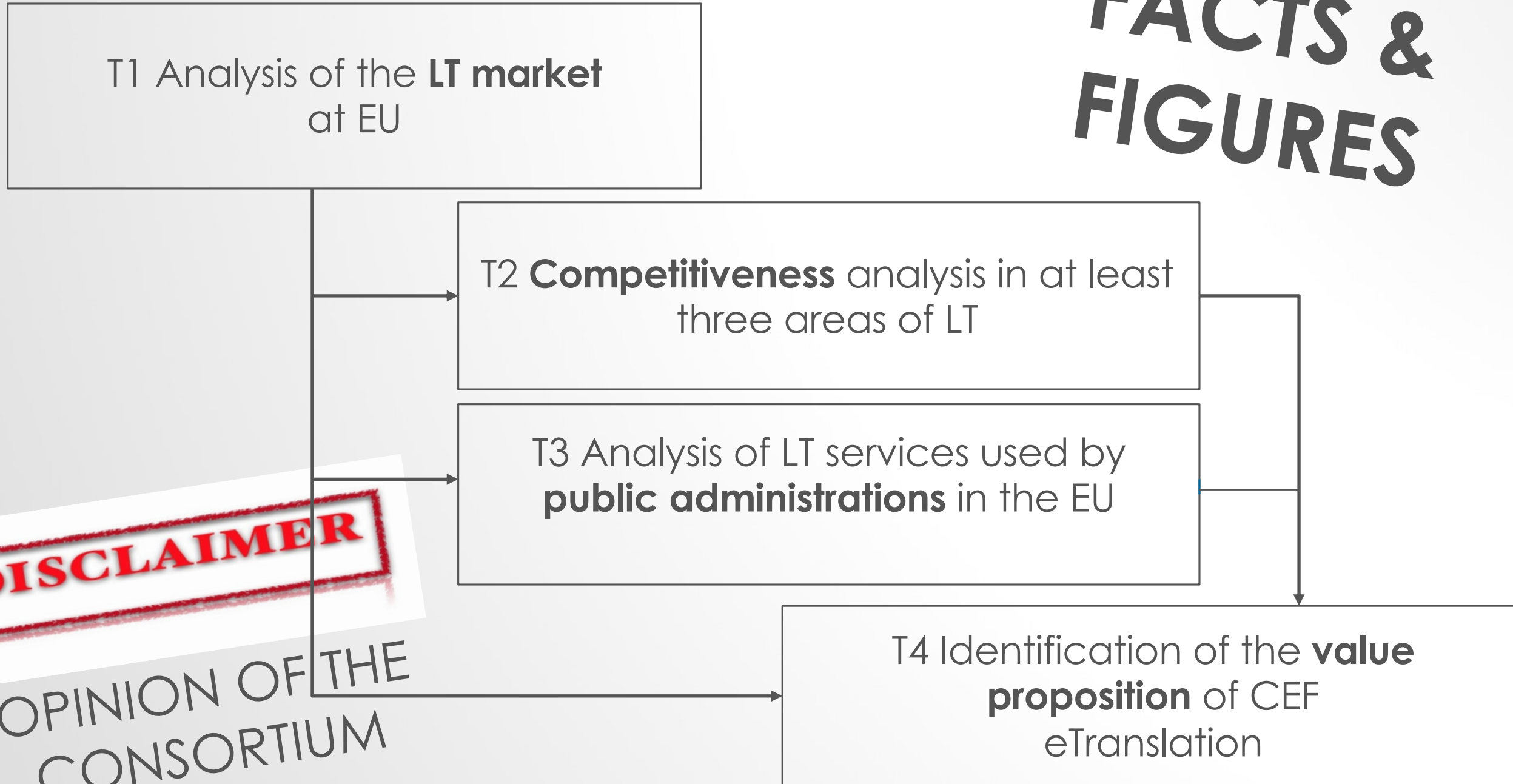
CROSLANG
TILU
eLDA
IDC

Digital Single Market

Country	2015	2016	2017
Germany	10000	10000	10000
France	10000	10000	10000
Netherlands	10000	10000	10000
Rest of EU 28	20000	20000	20000
European LT Market	70000	80000	90000



FACTS & FIGURES



DISCLAIMER
OPINION OF THE CONSORTIUM

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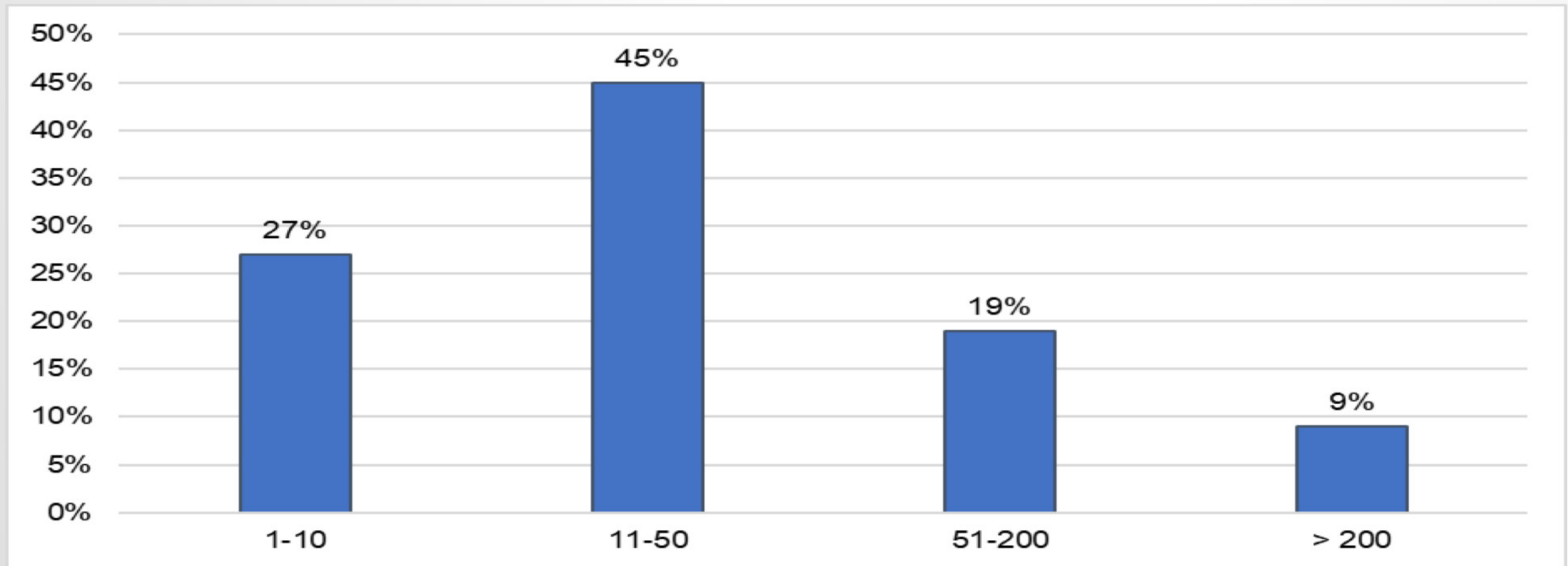


LANGUAGE TECHNOLOGY FORECAST 2018-2020

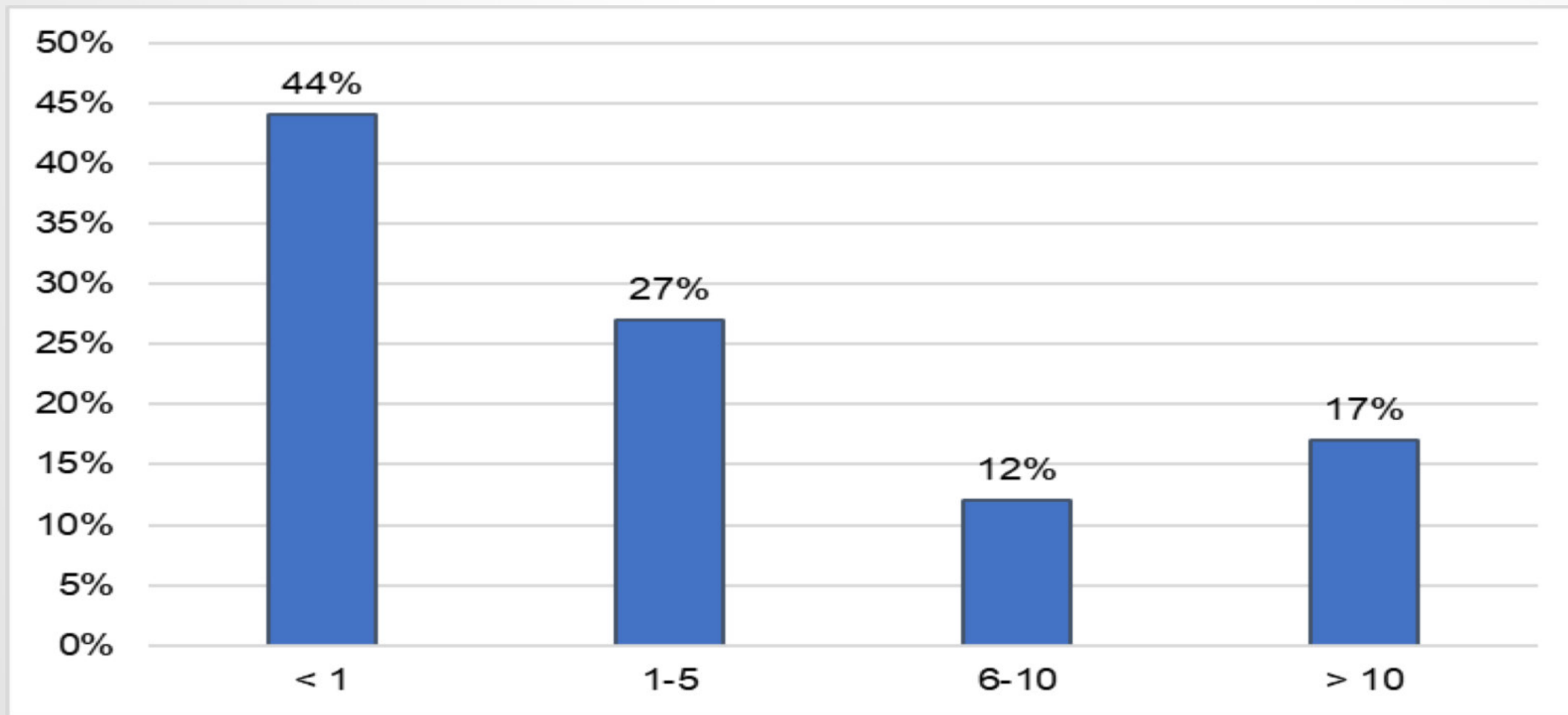
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In EUR million

LT VENDORS / EMPLOYEE NUMBERS

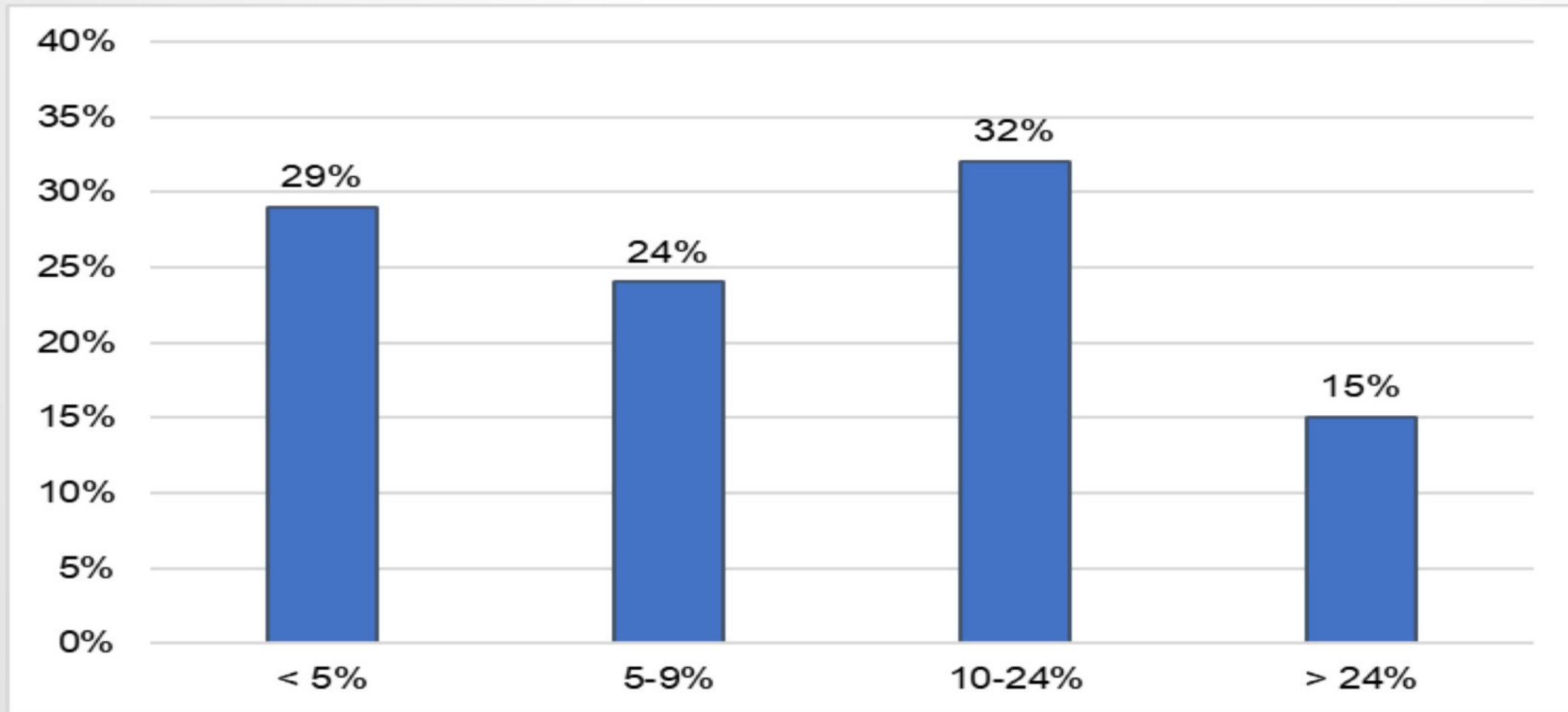


LT VENDORS / TURNOVER



In EUR million

LT VENDORS / PROFITABILITY



European LT Market – CEF Study

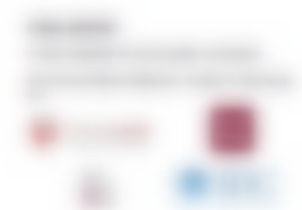
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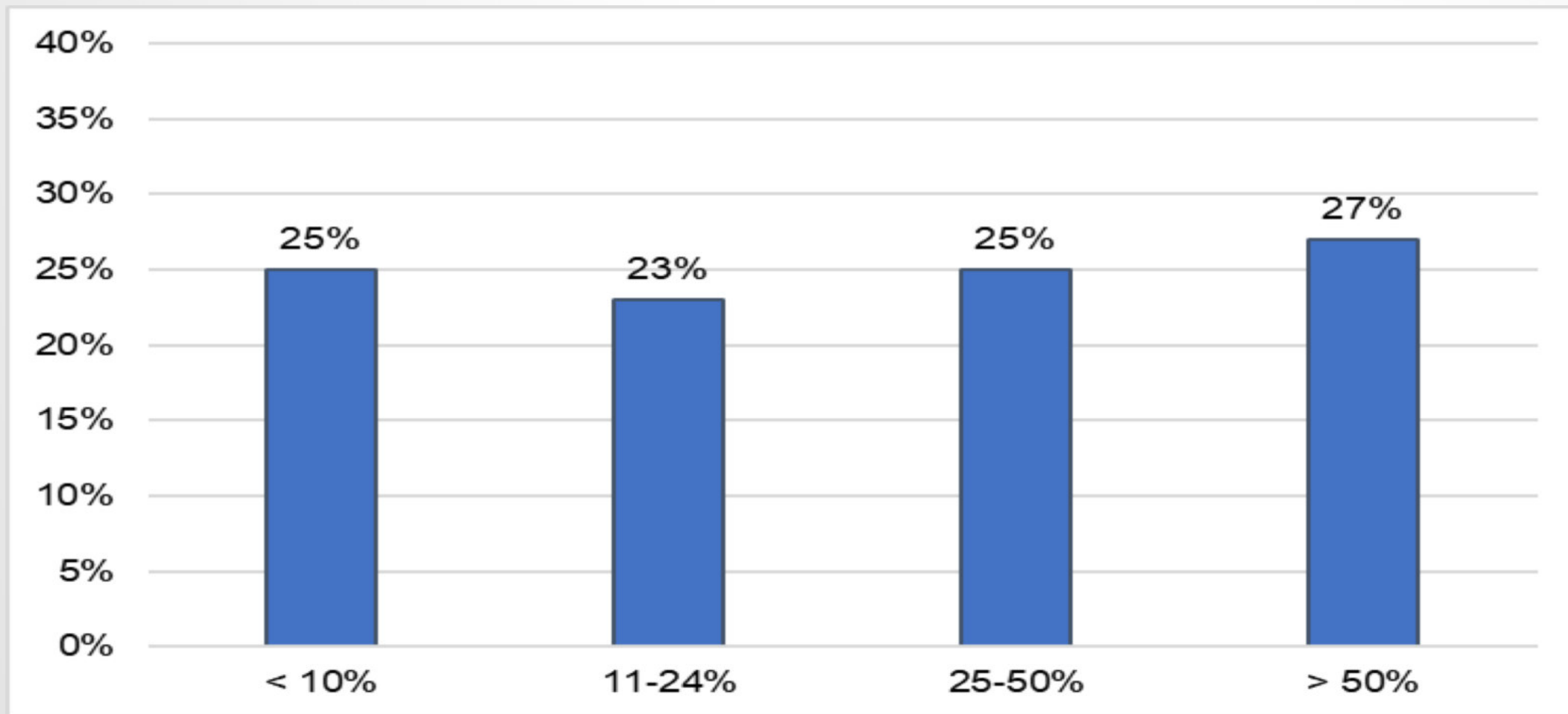
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Final study report on CEF Assisted Translation value proposition in the context of the European LT market ecosystem



	2018	2019	2020
Germany	10700	21700	24000
UK	10000	20000	23200
France	8000	9000	10500
Netherlands	1000	1000	1000
Rest of EU 28	20000	27500	30500
European LT Market	70000	80000	90000
Forecast 2021-2022			

LT VENDORS / REVENUE GROWTH 2019 - 2020



MOST CITED EMERGING TECHNOLOGIES

- Chatbots
- Machine Translation
- Automatic Summarization
- Natural Language Processing
- Automatic Speech Recognition

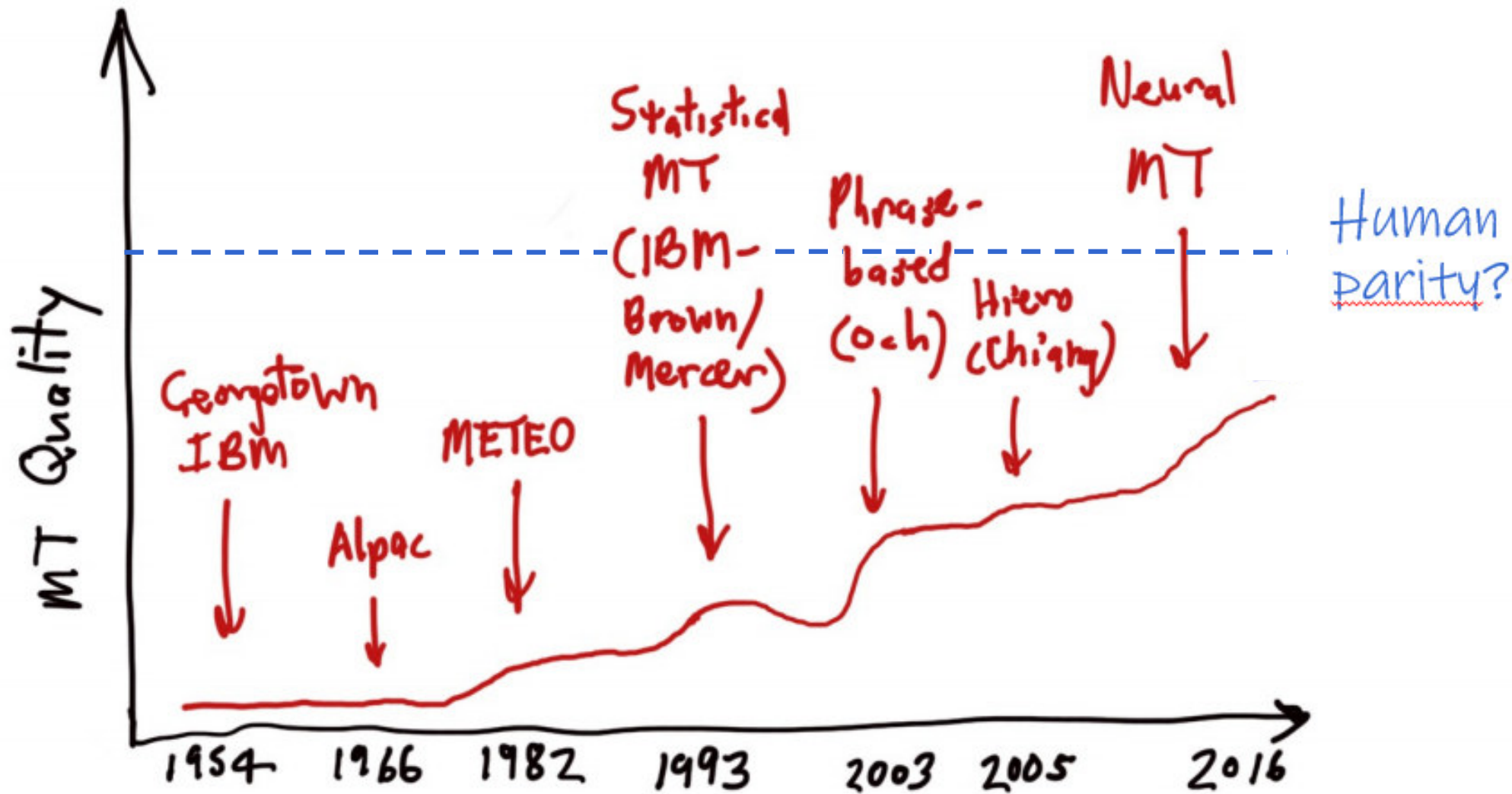


Multilingual Chatbots: The Conversation Has Yet to Get Longer

Just over 20 percent of search queries are made via voice now, and experts are predicting 50 percent of search to be done via voice by 2020.

Chatbots are relatively new to the market, but Gareth Dunlop, CEO and founder of user experience consultancy Fathom, points to a prediction by Gartner, forecasting that 25 percent of customer support and services will be integrated with virtual assistants by 2020.

Progress in MT



From: <https://nlp.stanford.edu/projects/nmt/Luong-Cho-Manning-NMT-ACL2016-v4.pdf>

What's so Massive About Google's Massively Multilingual Neural Machine Translation?

6 Days Ago

Technology · By Esther Bond On July 18, 2019



Google's AI team recently unveiled a new research paper on neural machine translation that has been five years in the making. The research paper, entitled "Massively Multilingual Neural Machine Translation in the Wild: Findings and Challenges," published on July 11, 2019.

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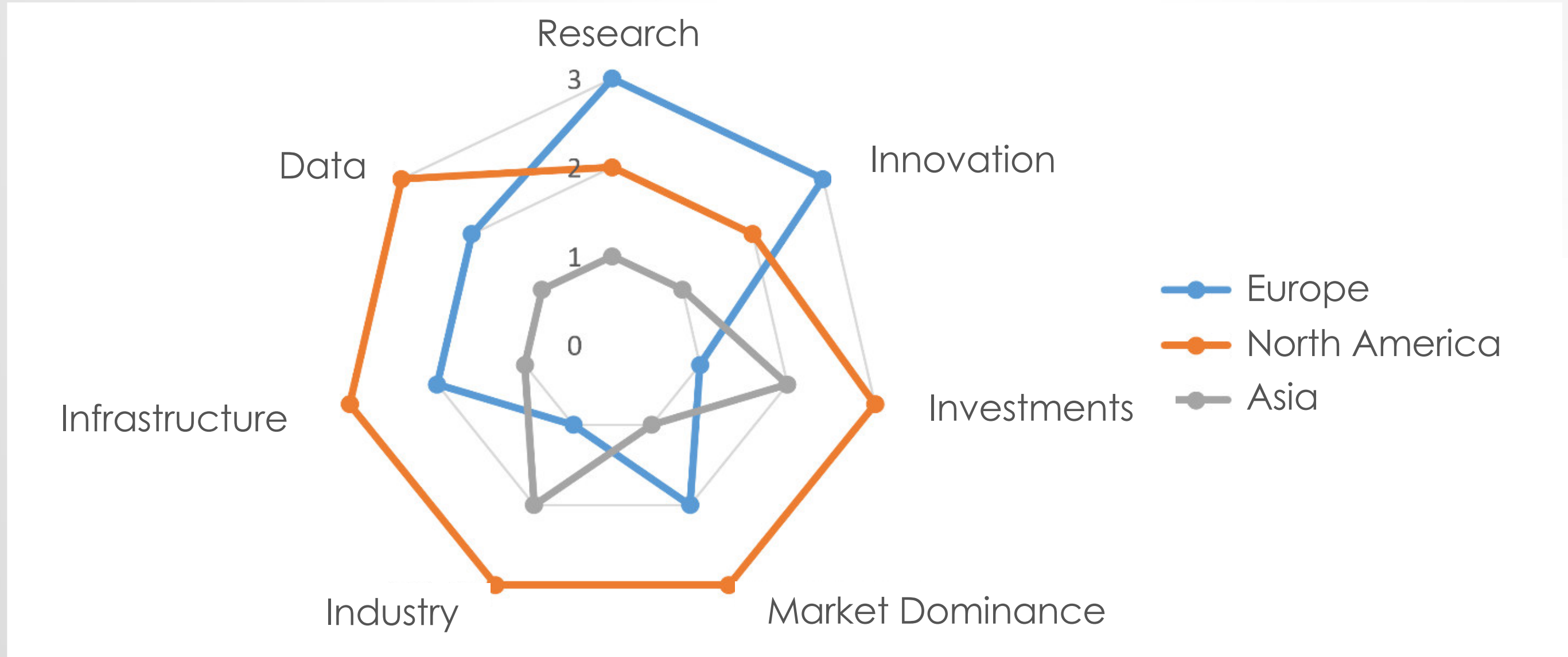
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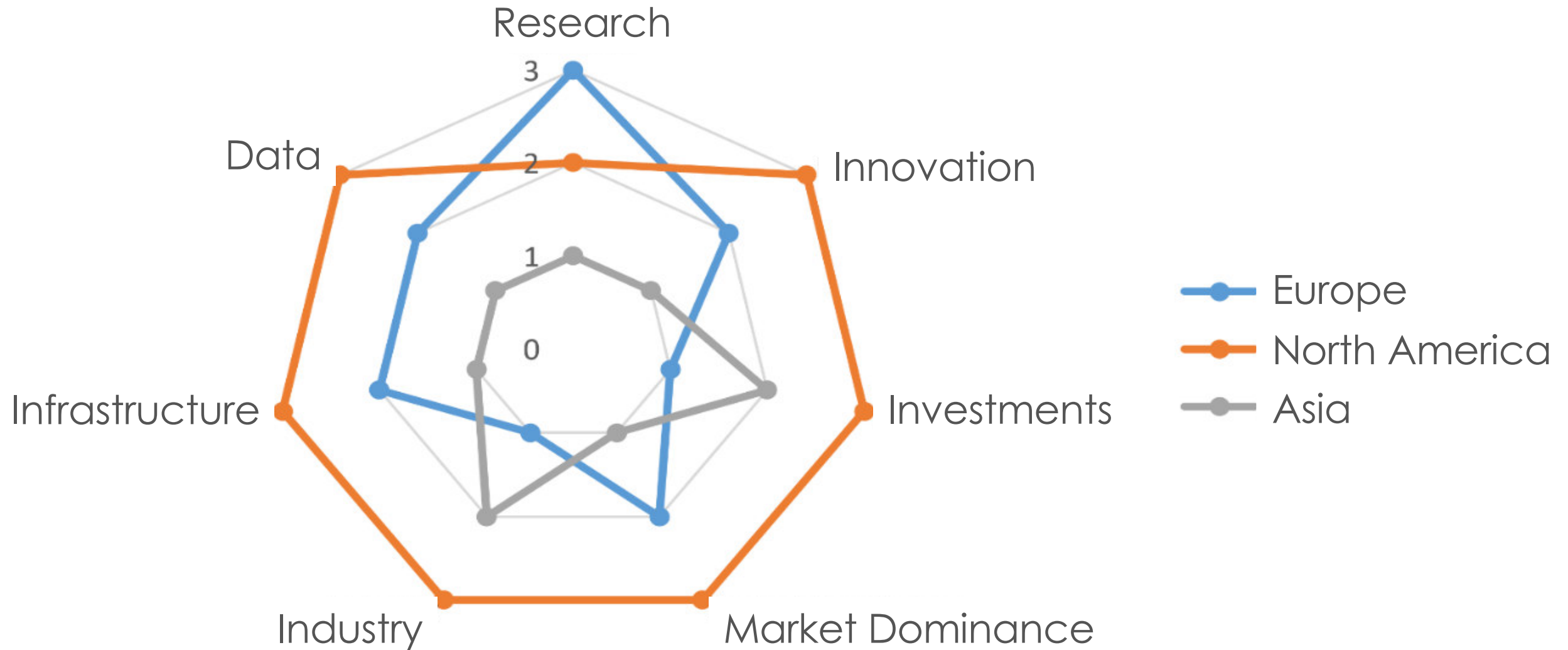
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European LT Market	17000	20000	14000

MACHINE TRANSLATION



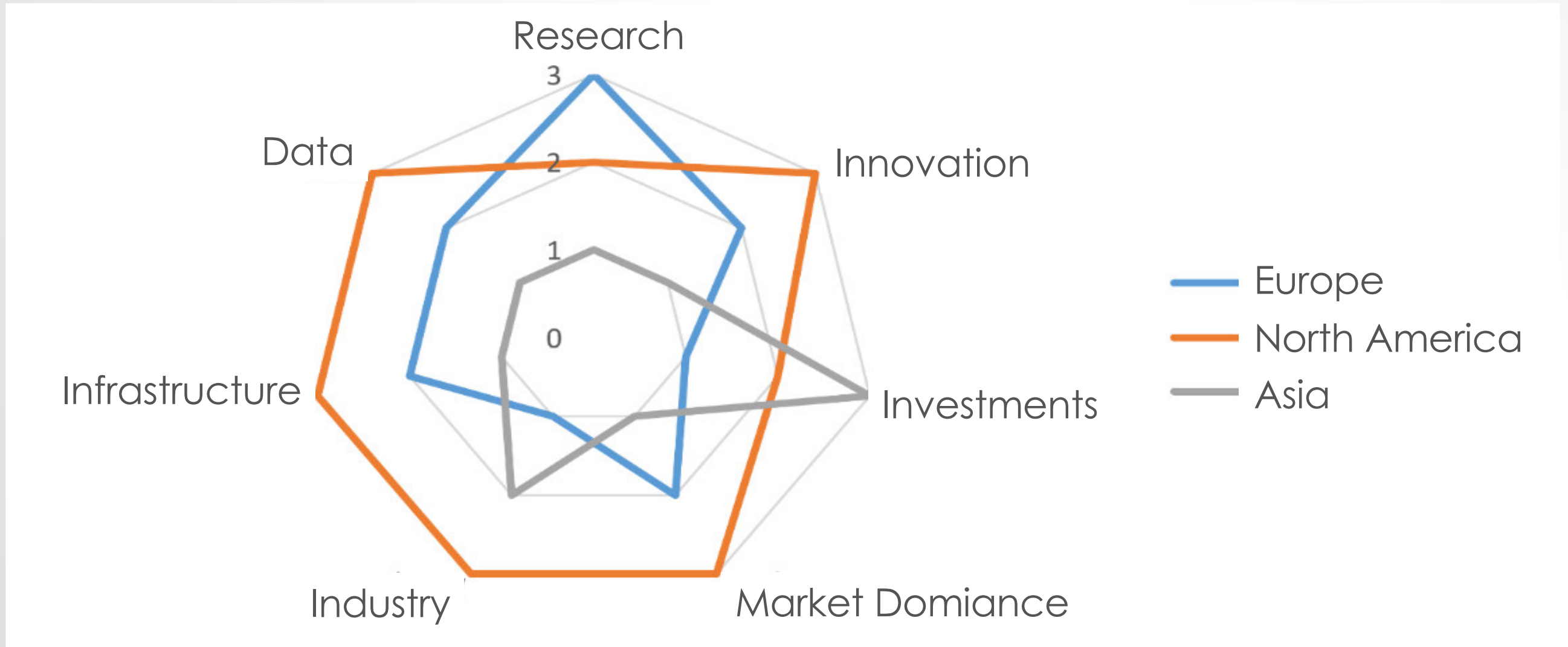
- Europe
- North America
- Asia

SPEECH TECHNOLOGY



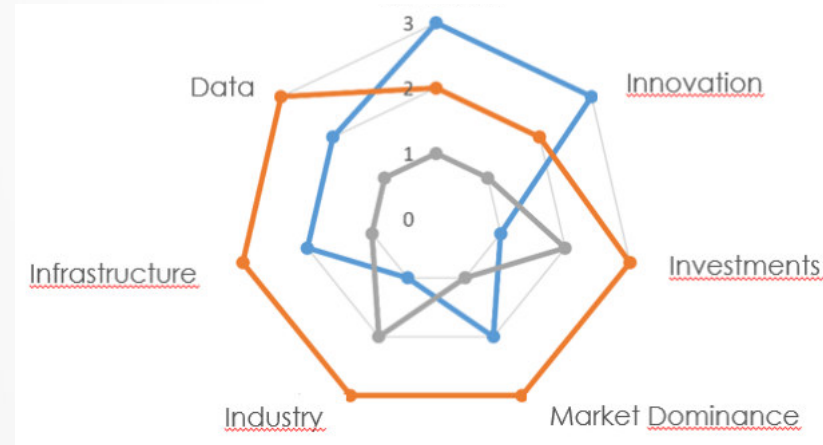
- Europe
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- Asia

SEARCH TECHNOLOGY



- Europe
- North America
- Asia

RESEARCH



- Research is based on :
 - Research centres
 - Research Publications (Scopus database – industry & academia)
 - Organisational infrastructure (eg. Associations, networks, infrastructures)

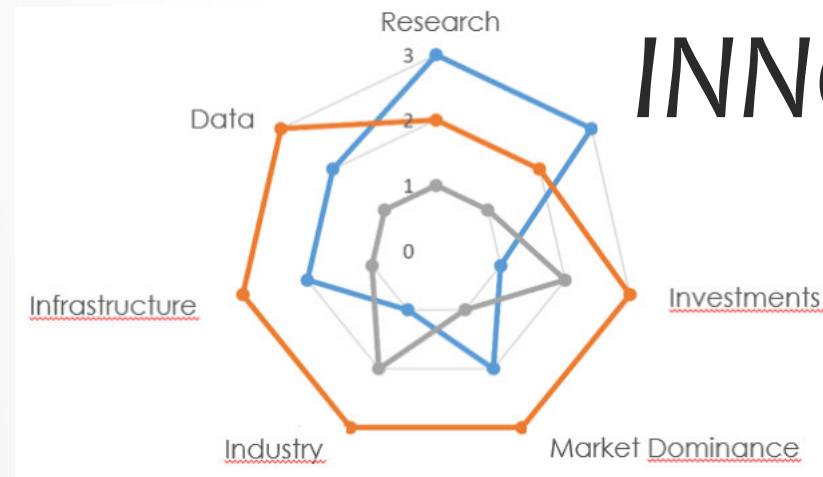
RESEARCH IN MT

- Research Centres in Europe : 54 (vs. 23 in US and 14 in Asia)
- Publications in Europe : 1752 (vs. 975 in US and 1932 in Asia)

Per Country:		Per institute/university:	
Spain	293	DCU	162
Germany	266	Politecnica de Valencia	65
UK	266	Edinburgh	58
Per Author:		Per private organization:	
Way A.	75	DFKI	54
Casacuberta F.	45	FBK	54
Specia L.	44		

- Organisational Infrastructure : EAMT/ELRC/LT Innovate/TAUS/META-NET/CLARIN/ELEXIS/DARIAH/Toolkits (Moses, Nematus, Open NMT, Marian)

INNOVATION



- Innovation is based on :
 - Market of origin of most popular tools
 - Eg. CAT tools (Across, Déjà Vu, Matecat, memoQ, Memsource, ..)
 - Implementation of latest techniques
 - Eg Adoption of NMT : European companies were quick to follow Google and Facebook
 - Emergence of start-ups
 - <https://angel.co>



Regional distribution of translation technology start-up companies

TECHNOLOGY



TECHNOLOGY

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124,000
Attendees

13,000
Startups

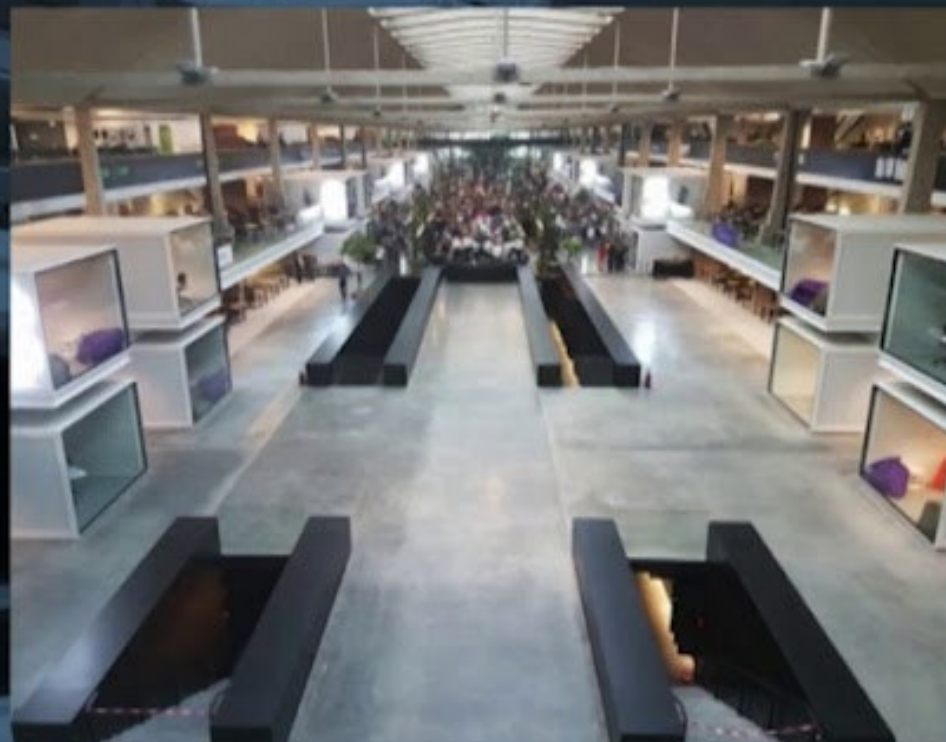
3,300
Investors

2,500
Journalists

125
Countries

STATION F

The largest startup campus

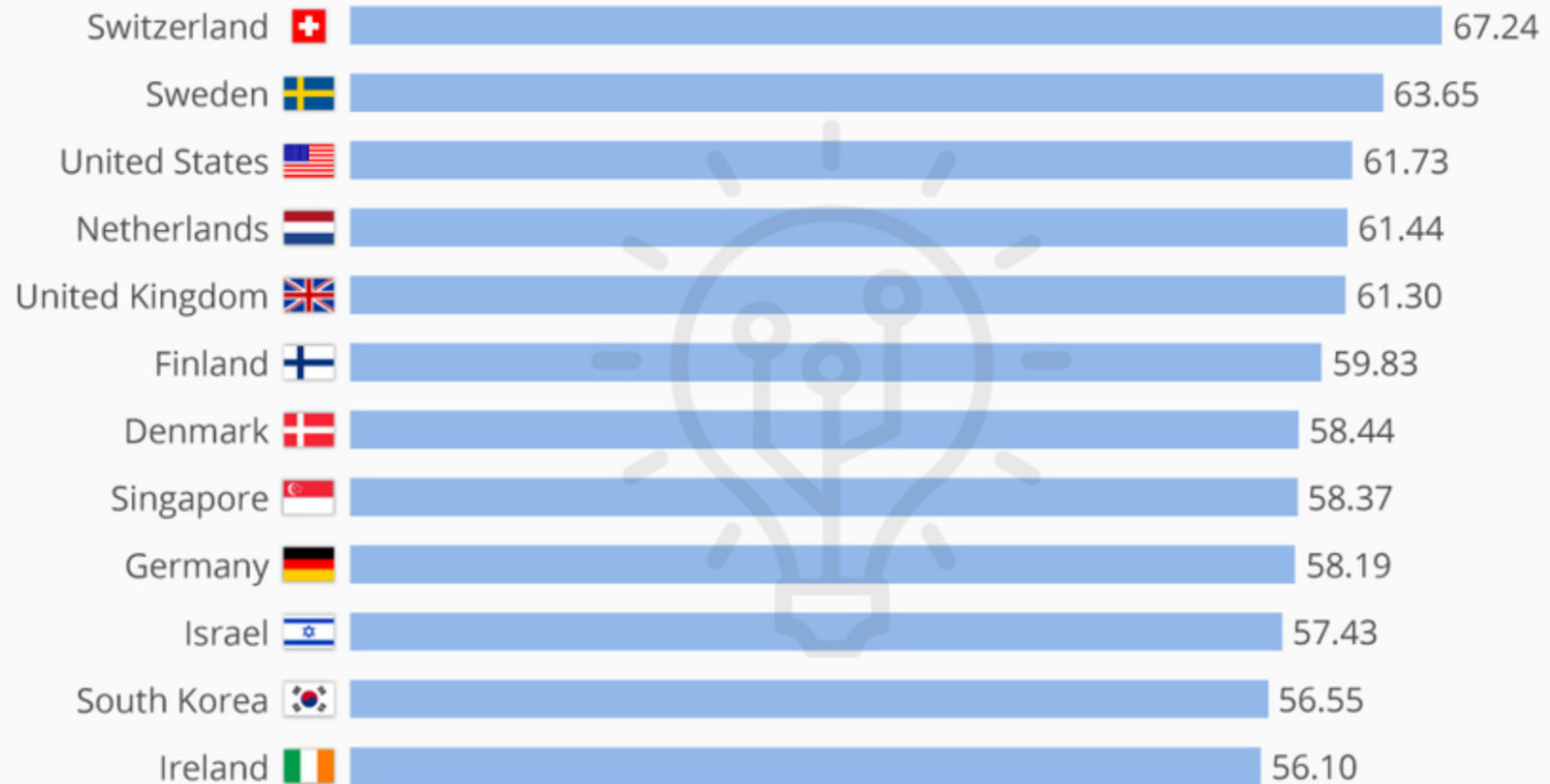


1,000
startups



The World's Most Innovative Countries

2019 rankings of the Global Innovation Index (100=most innovative)



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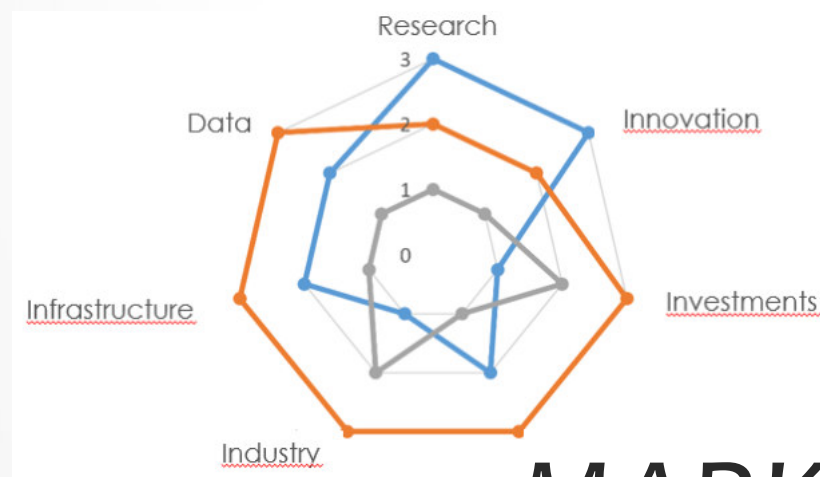
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European LT Market	73000	82000	93000



MARKET DOMINANCE


- ‘Market Dominance is measured by strength of a brand, product, service or firm’
- Comparing total web traffic of largest providers of LT services



Karen Tso 

@cnbcKaren



The world's most valuable global brand...  is ...[#Amazon!](#) Here is the list from [#Brandz](#) [@WPP](#) [@Kantar](#)

1. Amazon
2. Apple
3. Google
4. Microsoft
5. Visa
6. Facebook
7. Alibaba
8. Tencent
9. McDonalds
- 10 AT&T

♡ 5 7:47 AM - Jun 11, 2019



 [See Karen Tso's other Tweets](#)

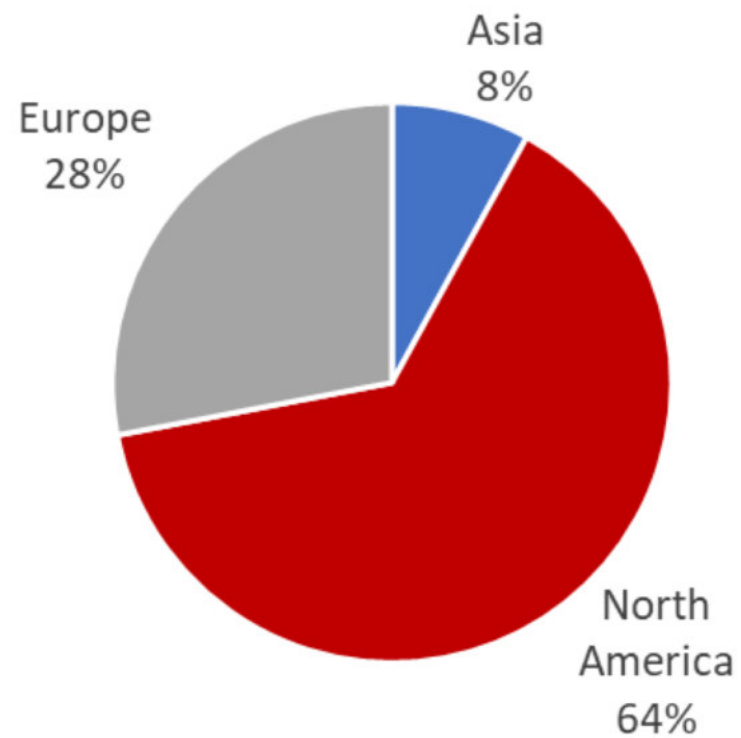


MARKET DOMINANCE

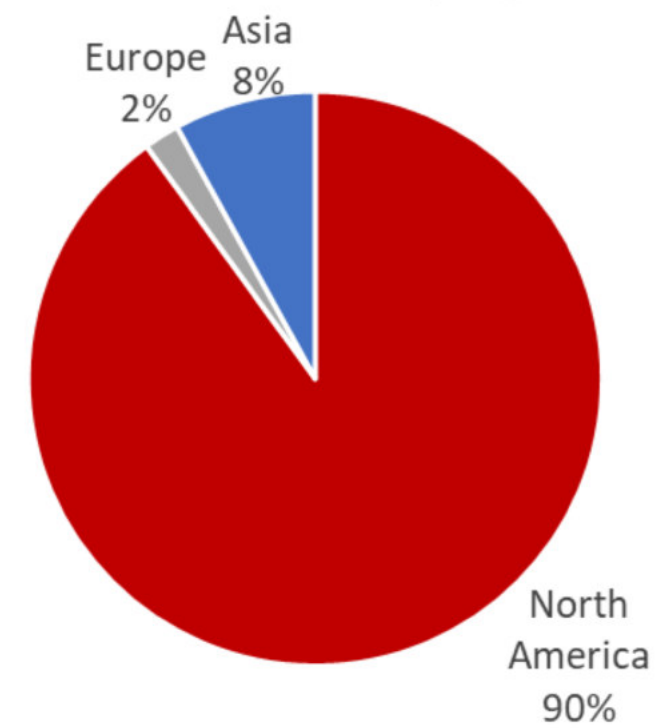
MT

SPEECH

Web traffic share by region



Web traffic share by region



LA / OC / SF

UNDERSTANDING.COM

#503688



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TO JOIN OUR FIGHT

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TEXT HELP FOR HELP, STOP TO END. MSG & DATA RATES MAY APPLY. [HTTPS://WWW.ELIZABETHWARREN.COM/PRIVACY-POLICY](https://www.elizabethwarren.com/privacy-policy).

 VOTE DEMOCRATIC

PAID FOR BY WARREN FOR PRESIDENT

WARREN HAS A
PLAN
FOR THAT

1446 x 25

Table 32 Top 20 global companies by market capitalisation and their MT activities, as of March 31, 2018

COMPANY NAME	NATIONALITY	INDUSTRY	MARKET CAP 2018 (\$B)	IN-HOUSE MT
Apple	United States	Technology	851	MT
Alphabet	United States	Technology	719	MT
Microsoft	United States	Technology	703	MT
Amazon	United States	Consumer Services	701	MT
Tencent	China	Technology	496	MT
Berkshire Hathaway	United States	Financials	492	
Alibaba	China	Consumer Services	470	MT
Facebook	United States	Technology	464	MT
JPMorgan Chase	United States	Financials	375	
Johnson & Johnson	United States	Health Care	344	
ICBC	China	Financials	336	
Exxon Mobil	United States	Oil & Gas	316	
Bank of America	United States	Financials	307	
Samsung Electronics	South Korea	Consumer Services	298	MT
Walmart	United States	Consumer Services	264	
Royal Dutch Shell	United Kingdom	Oil & Gas	263	
China Construction Bank	China	Financials	259	
Wells Fargo	United States	Financials	256	
Nestle	Switzerland	Consumer Goods	246	
Visa	United States	Financials	246	

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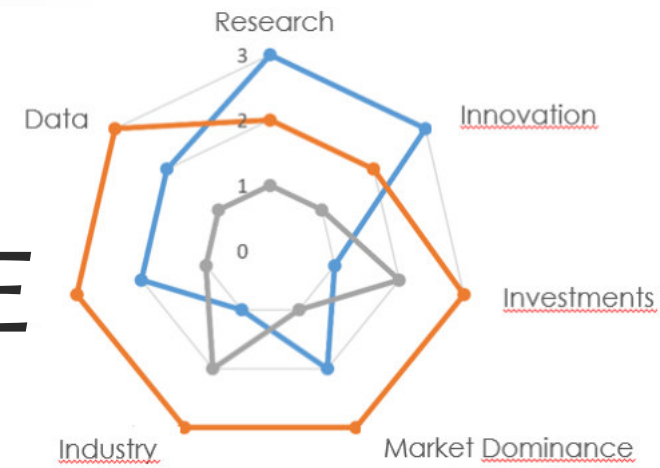
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INFRASTRUCTURE



- Availability of technical infrastructure
- Access to infrastructure

Europe needs \$800 billion investment in digital infrastructure

3 MIN READ



ALPBACH, Austria (Reuters) - Europe needs to invest close to \$800 billion in its digital infrastructure to catch up with the United States and China, the European Union commissioner responsible for the issue said on Thursday.



#VentureEU



VentureEU

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CAPITAL INVESTMENT
IN EUROPE'S INNOVATIVE
START-UPS**



European
Commission



Language Tools &
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CEF eTranslation

Language Tools &
Services Offered by
Third-Party Services



Service
Descriptions

**Catalogue of
CEF eTranslation
Services**

Information
about
Geographic
Coverage



Links to a Huge
Number of Tools
& Services

Information about
User Benefits



Information
about Target
Users

Links to Closely
Related Services



Towards the Primary Platform for Language Technologies in Europe





THANK YOU!