

Europe's Role in Language Technology

Konstantin Dranch

Localization industry researcher

[linkedin.com/in/kdranch](https://www.linkedin.com/in/kdranch)

TRANSLATION TOOLS

Workflow systems



INTERPRETING TOOLS



MEDIA LOCALIZATION



MACHINE INTELLIGENCE

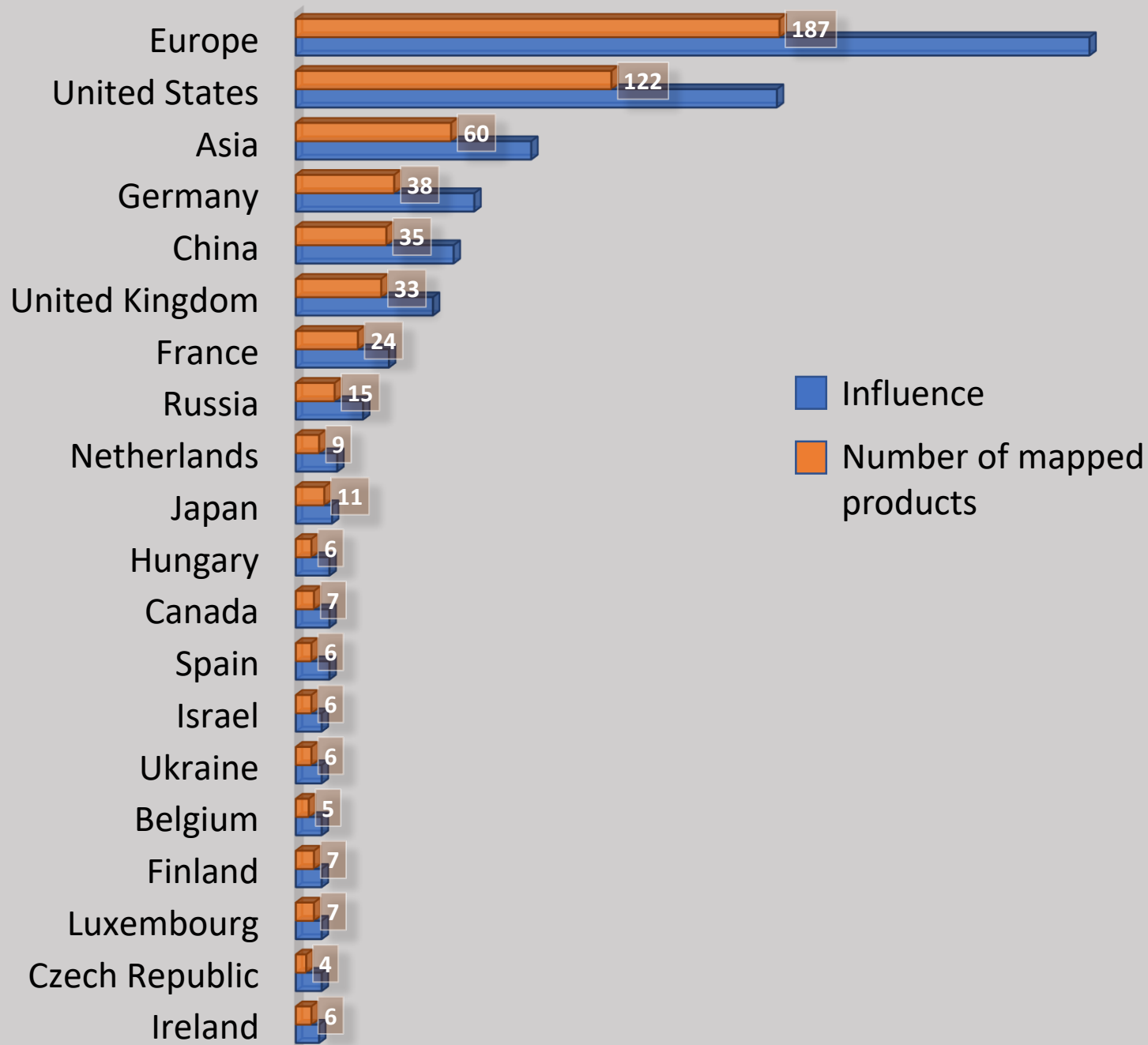


MACHINE TRANSLATION



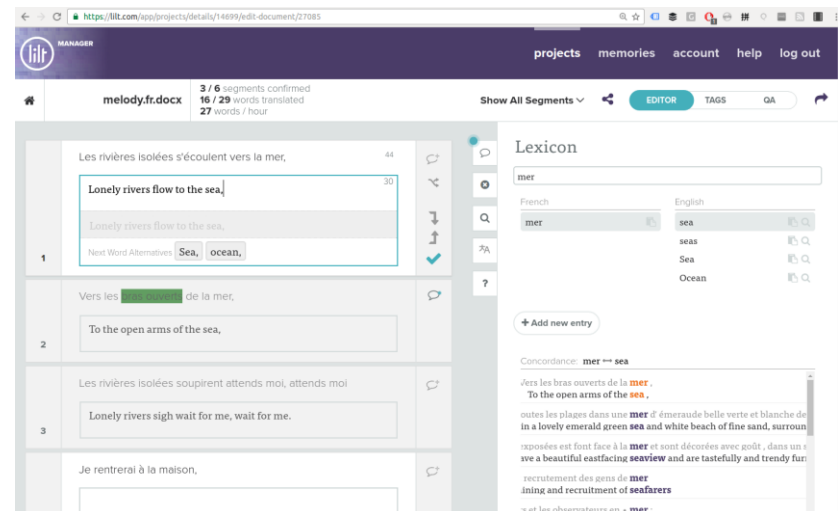
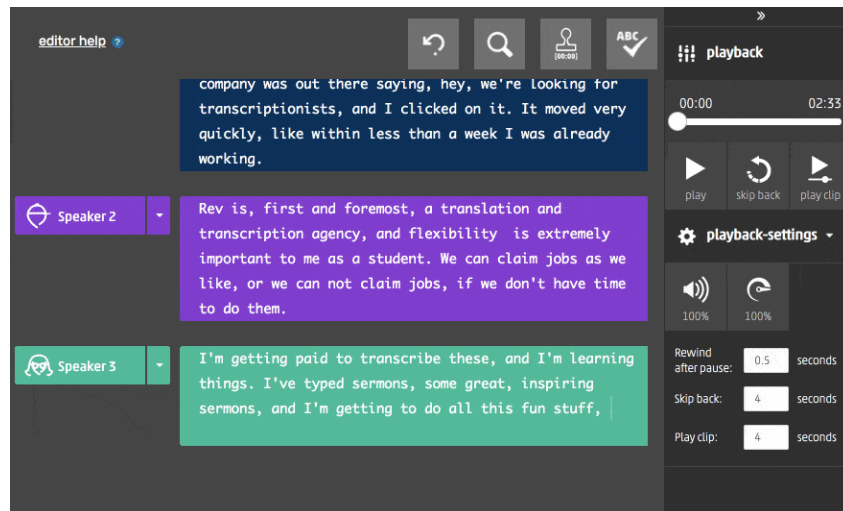
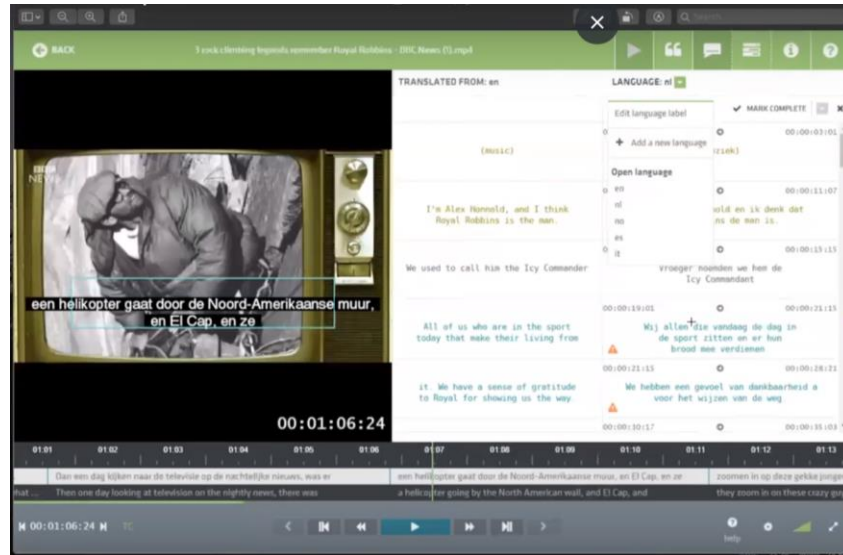
MARKETPLACES AND PLATFORMS



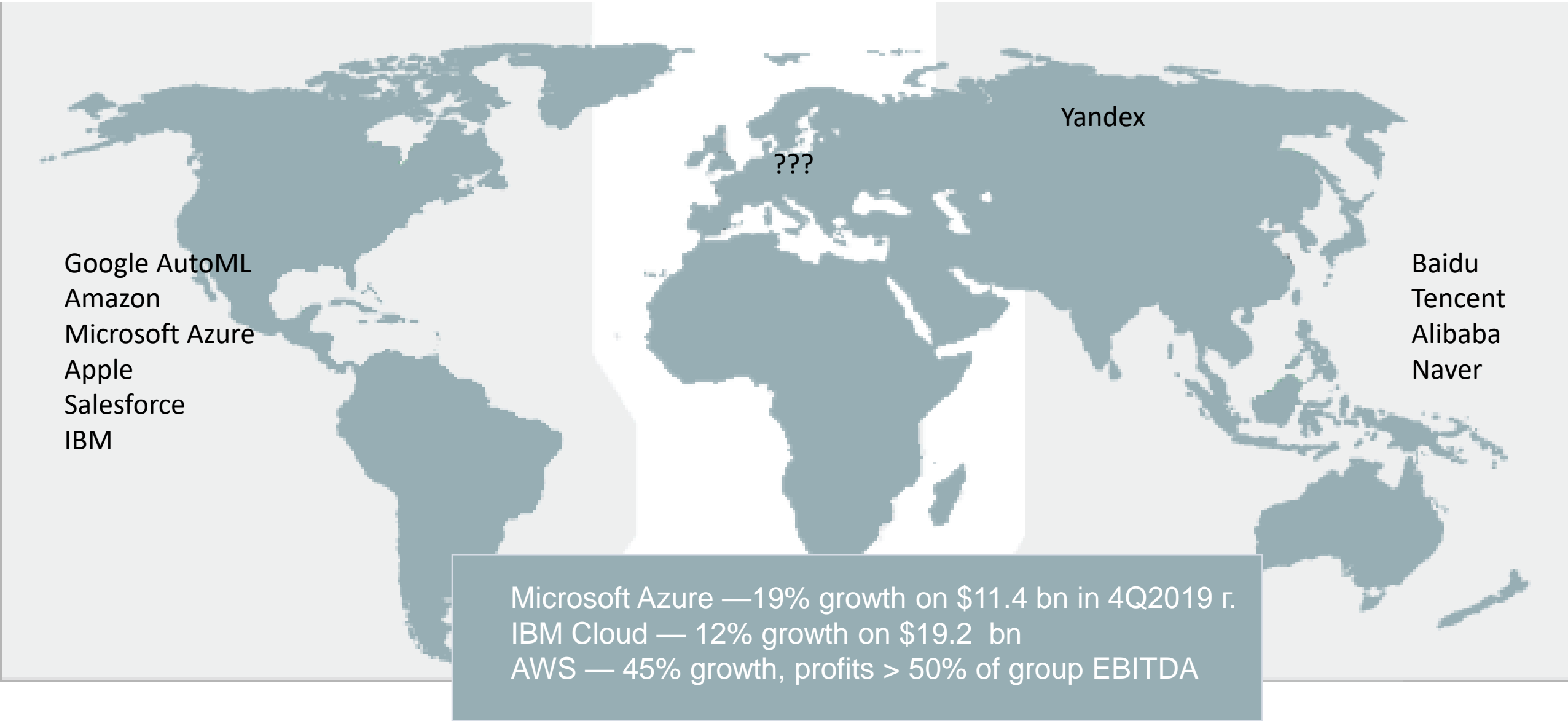


Prominent language technology products	
Europe	SDL Trados, memoQ, Memsource, Transit, Across, Atril Deja Vu, Matecat, XTRF, Plunet, DeepL, Systran, Interprefy.
United States	Google Translate, Amazon Translate, Microsoft Translator, IBM Watson, Nuance, Smartling, GlobalLink, Lingotek, ProTools.
Asia	MT with Baidu, Tencent MT, Alibaba MT, NewtranX, GTCom, Naver, Glodom, Timekette, Sogou, IFlytek.

Future: editing machine output



Future: ML language Cloud



Future: innovation access to funding

Company	USD million	Location
Unbabel	92	Portugal / US funding
Smartling	63	US / Ukraine
Idiom	60	US
Gengo	26	Japan / US
Verbit	23	US / Israel
Flitto	23	Korea
Cloudwords	14	US
Lilt	13	US
Smartcat	12	Russia / US
Qordoba	10	US / India
One Hour Translations	10	US / Israel
Lingotek	8	US

Company	USD million	Location
IFlytek	440+	China
GTCOM	100+	China

Selected top funded language industry companies

Policy for 2030?

A look at Horizon 2020 outcomes

Enhancing European Linguistics (METANET4U)	2011	2013	5 300 000,00	2 650 000,00	50,00%	70.00%	1	15.00%	1	15.00%	4	24.00%
Technology for Language-Aided CMS (ATLAS)	2010	2013	2 973 621,00	1 486 810,00	50,00%	43.00%	1	15.00%	0	0.00%	2	12.00%
Multilingual Management in Medical Domain (MORMED)	2010	2012	2 222 000,00	1 111 000,00	50,00%	12.00%	0	0.00%	0	0.00%	1	6.00%
Bologna Translation Service (BOLOGNA)	2011	2013	3 160 002,00	1 580 000,00	50,00%	33.00%	1	15.00%	0	0.00%	2	12.00%
Agriculture & Environment Education (Organic.Lingua)	2011	2014	3 500 000,00	1 750 000,00	50,00%	12.00%	0	0.00%	0	0.00%	1	6.00%
Educational usage of Linked Data (EUCLID)	2012	2014	742 428,00	661 998,00	89,17%	39.00%	1	15.00%	0	0.00%	2	12.00%
Foreign Language Versions of Sites (FLAVIUS)	2010	2012	3 700 002,00	1 850 000,00	50,00%	94.00%	1	15.00%	1	15.00%	5	30.00%
Fusing and pooling information (FusePool)	2012	2014	2 463 784,00	1 930 980,00	78,37%	12.00%	0	0.00%	0	0.00%	1	6.00%
Legal Language Interoperability (LISE)	2011	2013	2 500 001,00	1 250 000,00	50,00%	27.00%	1	15.00%	0	0.00%	1	6.00%
Multilingual Services for SME (PROMISLingua)	2011	2013	5 280 003,00	2 640 000,00	50,00%	33.00%	1	15.00%	0	0.00%	1	6.00%
Online Service for Machine Subtitling (SUMAT)	2011	2014	3 600 002,00	1 800 000,00	50,00%	12.00%	0	0.00%	0	0.00%	1	6.00%
Second Language Tutoring using Robots (L2TOR)	2016	2018	3 042 565,00	3 042 562,00	100,00%	61.00%	1	15.00%	0	0.00%	3	18.00%
Big Speech Data analytics (BISON)	2015	2017	4 097 952,50	3 090 824,50	75,42%	43.00%	1	15.00%	0	0.00%	1	6.00%
Multilingual Medical Text Analysis (KConnect)	2015	2017	3 889 842,50	3 083 083,00	79,26%	33.00%	1	15.00%	0	0.00%	1	6.00%
Multimedia Content Annotations (MECANEX)	2015	2016	1 232 100,00	989 100,00	80,28%	12.00%	0	0.00%	0	0.00%	1	6.00%
Knowledge-Based Information Agent (KRISTINA)	2015	2018	3 633 801,25	3 633 801,00	100,00%	12.00%	0	0.00%	0	0.00%	1	6.00%
Language-Processing by Overlapping Predictions (L-POP)	2014	2019	1 552 740,00	1 552 740,00	100,00%	12.00%	0	0.00%	0	0.00%	1	6.00%
Social Sentiment analysis indexes (SSIX)	2015	2018	4 259 125,50	3 315 963,00	77,86%	18.00%	0	0.00%	0	0.00%	2	12.00%
Social Semantic Emotion Analysis (MixedEmotions)	2015	2017	3 529 617,14	3 036 910,00	86,04%	12.00%	0	0.00%	0	0.00%	1	6.00%
Scalable Understanding of Multilingual Media (SUMMA)	2016	2019	7 963 951,25	6 193 361,25	77,77%	61.00%	1	15.00%	0	0.00%	3	18.00%
Evaluation criteria						TOTAL SCORE	Applicable results	Score A	Boost EU economy	Score B	Contribute to Langtech	Score C

Evaluation criteria

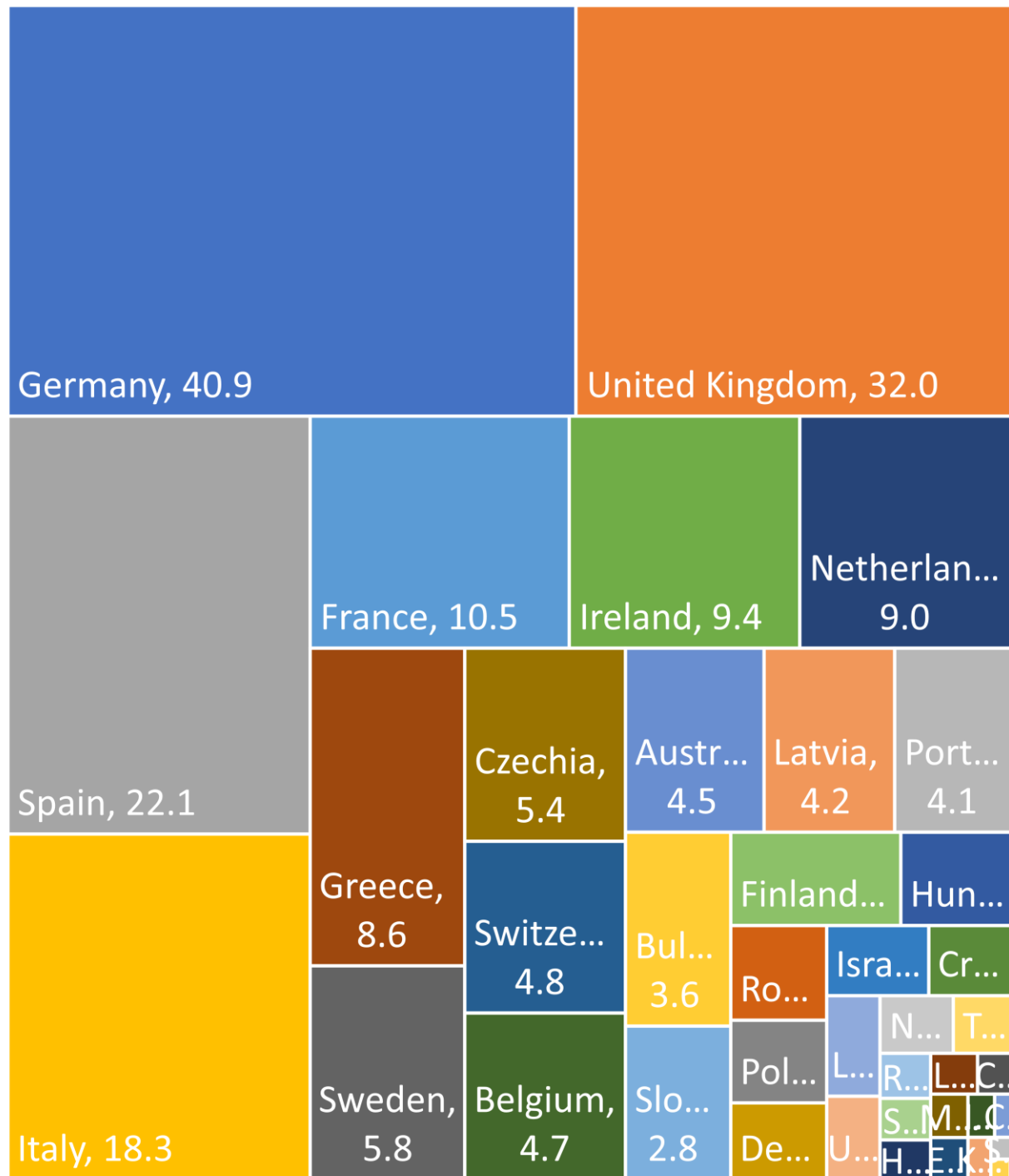
1. Survives post-funding
2. Practical
3. Impact on language industry
4. Impact on the world outside the language industry
5. Helps EU competitiveness

Projects

1. Completed 2010 - 2018
2. Language technology
3. Funded
4. Total sample: 85 projects, €210 million funding

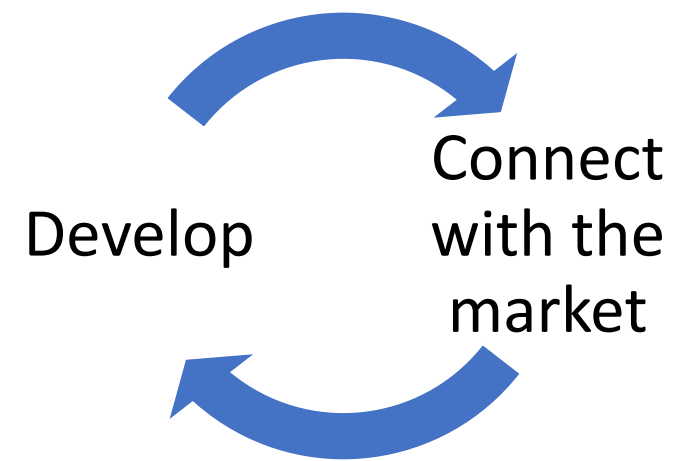
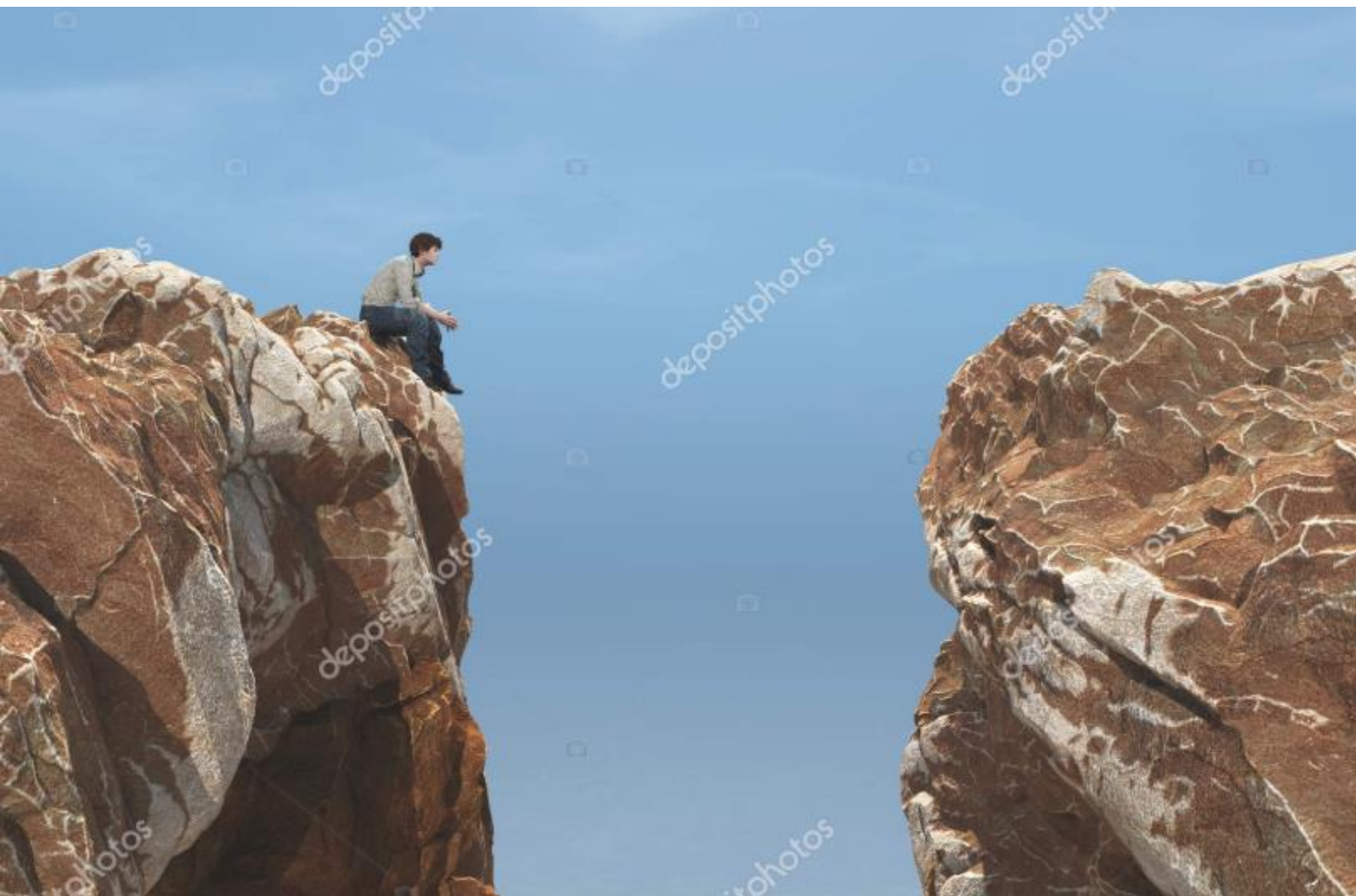
37%
**projects deemed
successful**

* With the current methodology



Recipient	Type	Funding*
DFKI	Academia	10,073,975
THE UNIVERSITY OF EDINBURGH	Academia	9,385,163
FONDAZIONE BRUNO KESSLER	Academia	5,691,069
THE UNIVERSITY OF SHEFFIELD	Academia	4,813,416
DUBLIN CITY UNIVERSITY	Academia	3,859,911
KARLSRUHER INSTITUT FUER TECHNOLOGIE	Academia	3,564,728
ATHINA-EREVNITIKO KENTRO KAINOTOMIAS...	Academia	3,492,059
TILDE SIA	Business	2,906,527
UNIVERSIDAD POMPEU FABRA	Academia	2,542,450
UNIVERZITA KARLOVA	Academia	2,507,702
NATIONAL UNIVERSITY OF IRELAND GALWAY	Academia	2,396,856
INSTITUT JOZEF STEFAN	Academia	2,154,133
RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	Academia	2,098,104
LINGUATEC GMBH	Business	2,096,615
ONTOTEXT AD	Business	2,053,042
UNIVERSITAT POLITECNICA DE CATALUNYA	Academia	2,031,948
UNIVERSITA DEGLI STUDI DI TRENTO	Academia	2,015,259
TRANSLATED SRL	Business	1,903,535
UNIVERSIDAD POLITECNICA DE MADRID	Academia	1,769,793
ESTEAM AB	Business	1,669,822

* In the evaluation sample



Perceived success factors

Successful	Isolated
<ol style="list-style-type: none">1. Clear application and implementation2. Healthy share of business in the mix3. Organizational maturity4. R&D for a product, not a theory	<ol style="list-style-type: none">1. Academia only2. Small participants only3. No criteria for final product implementation4. Poor planning: target audience, distribution channels, support not defined.

Areas of improvement

Distribution and
commercialization

Academia < > industry
disconnect

Agile + Evaluation

Life after funding

Areas of improvement

Distribution and commercialization

- 1-3 partners with sales and marketing in the mix

Academia < > industry disconnect

- Improved presence at industry events and forums

Agile + Evaluation

- Review of results
- Shorter iterations of reporting

Life after funding

- Plans and KPIs for post-funding lifecycle
- Early stage community

Build for leadership!

Konstantin Dranch

Language industry researcher

[Linkedin.com/kdranch](https://www.linkedin.com/kdranch)

