Translating and the Computer 44
Luxembourg, 24 November 2022

DO TRANSLATORS USE MACHINE TRANSLATION AND IF SO, HOW?

SURVEY RESULTS

CONCLUSION

- Although it was found that translators with more experience are less likely to accept MTPE assignments than their less experienced colleagues, it was seen that they are equally likely to use MT themselves in their own translation work

CONCLUSION

- As might be expected, translators who work with lower-resource languages are less likely to accept MTPE jobs, but – perhaps surprisingly – there is no such relationship regarding the use of MT in their workflow

CONCLUSION

- Attitude towards using MT and accepting MTPE jobs was also found *not* to depend on the importance of translation among the services the professional translator provides, the way the translator works (freelancer, inhouse, etc.) or the proportion of translation work the translator does in their main language pair

CONCLUSION

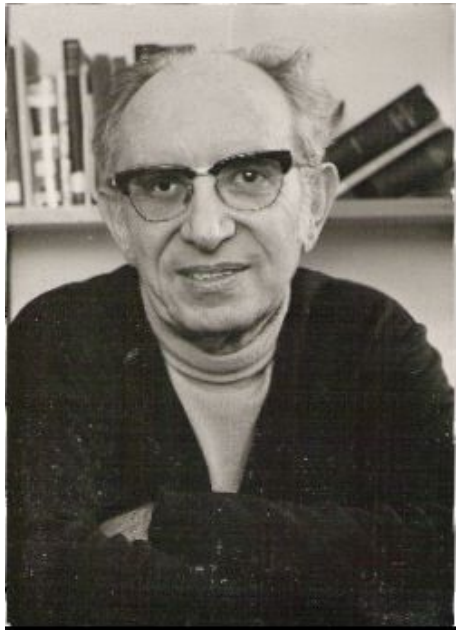
- When left to their own devices, only 18.57% of the translators who use MT in their workflow (69.54%) always or usually use it in the way the pioneers of machine translation envisaged, i.e., MTPE
- Most usually or always prefer to use MT in a wide range of other ways

CONCLUSION

- The vast majority of MT-users (91.51%) do not feel that it is always necessary to inform their employer/client(s) that they use machine translation in their workflow and 25.83% never do so
- The impression is that translators today see MT as just one of the many tools they have available to them and not so special as to need pointing out

INTRODUCTION

- Right from the beginning, totally replacing humans with machines for all kinds of translation was not a realistic goal
  - “Perfect translation is almost surely unattainable” (Weaver, 1949)
  - Bar-Hillel described the need for post-editing “not only for polishing up purposes” but also to deal with ambiguity which is “resolvable only on the basis of extra-linguistic knowledge” (Bar-Hillel, 1960)
- Looked as if MTPE was shortly destined to become the predominant approach to translation, at least for technical and scientific texts

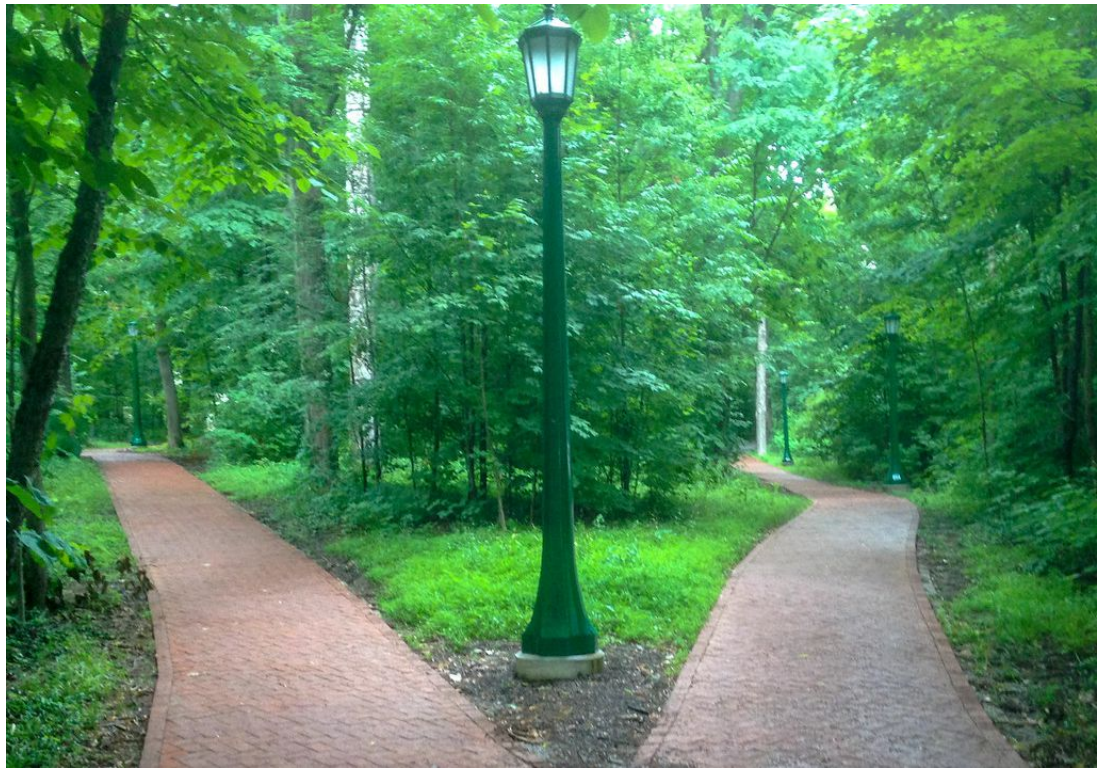


INTRODUCTION

- A few years later, the 1966 report published by the Automatic Language Processing Advisory Committee (ALPAC) cast doubt on its economic viability
- After the ALPAC report, attention gradually turned towards CAT tools

INTRODUCTION

- Initially MT systems and CAT tools followed two separate paths of development
  - Until Lingotek produced a web-based CAT tool with MT integration in 2006
- CAT-MT integration makes *hybrid post-editing* possible, i.e., a process whereby part of the translation is done through the post-editing of machine translation output and part through the editing of translation memory matches



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INTRODUCTION

- Some recent studies have noted the blurring lines between the two types of editing caused by improvements in the quality of MT output

THE SURVEY

- No previous surveys designed to obtain details of precisely how freelance translators choose to include machine translation in their workflow
- Anonymous online survey between 23 July and 21 October 2022
- The questions were inspired by an informal discussion in a private Facebook group (Translators in Italy) in February 2022, which was a *de facto* brainstorming session on how professional translators use machine translation during their work

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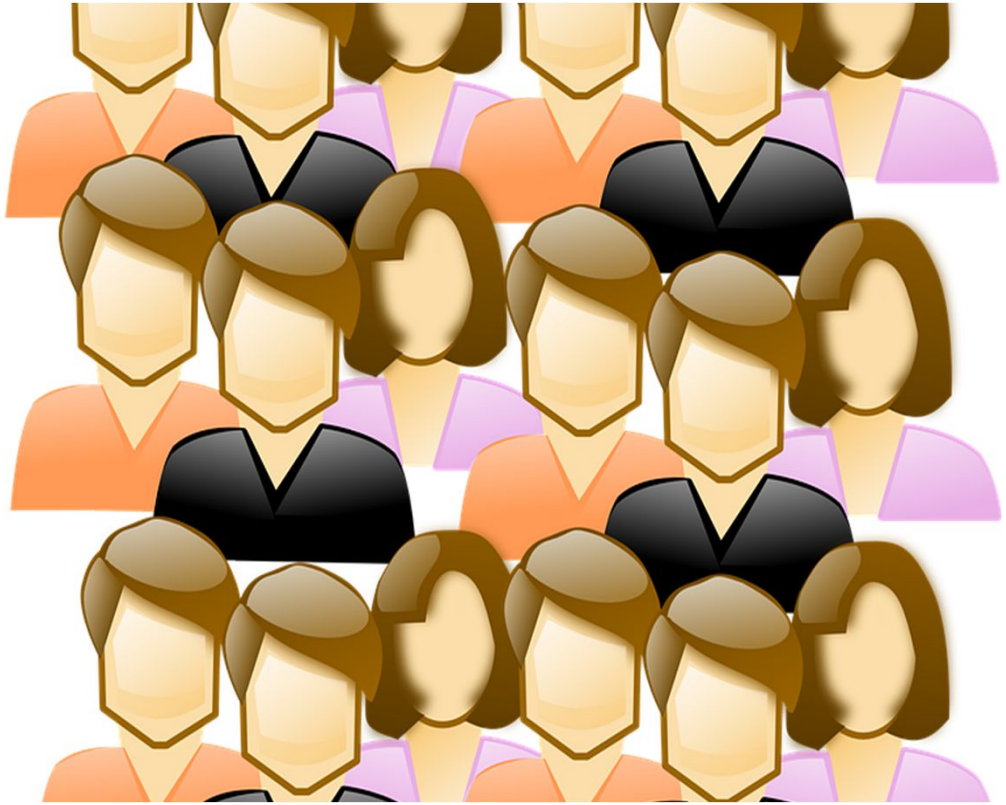
SURVEY POPULATION

- Survey responses were received from 452 people
- 6 were disqualified since they answered that they were not professional translators
- 301 were sent the survey link by a professional association or a member thereof (group A)
- 145 received the survey link from social media or a website, or from someone who found it that way (group B)
- 2 responses were so incomplete they could not be used; other incomplete responses were used up to the question they reached



SURVEY POPULATION

- Both groups gave comparable replies to the key questions: use of MT and willingness to accept MTPE assignments ($p > .05$)
- This may be because
  - No longer true that a high level of IT skill means greater use of MT
  - Frequenting social media and the internet is not indicative of a particularly high level of IT skill
  - Predominantly tech-savvy association members tend to reply to online surveys
- Whatever the explanation, there is no reason to keep the data separate from hereon in

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

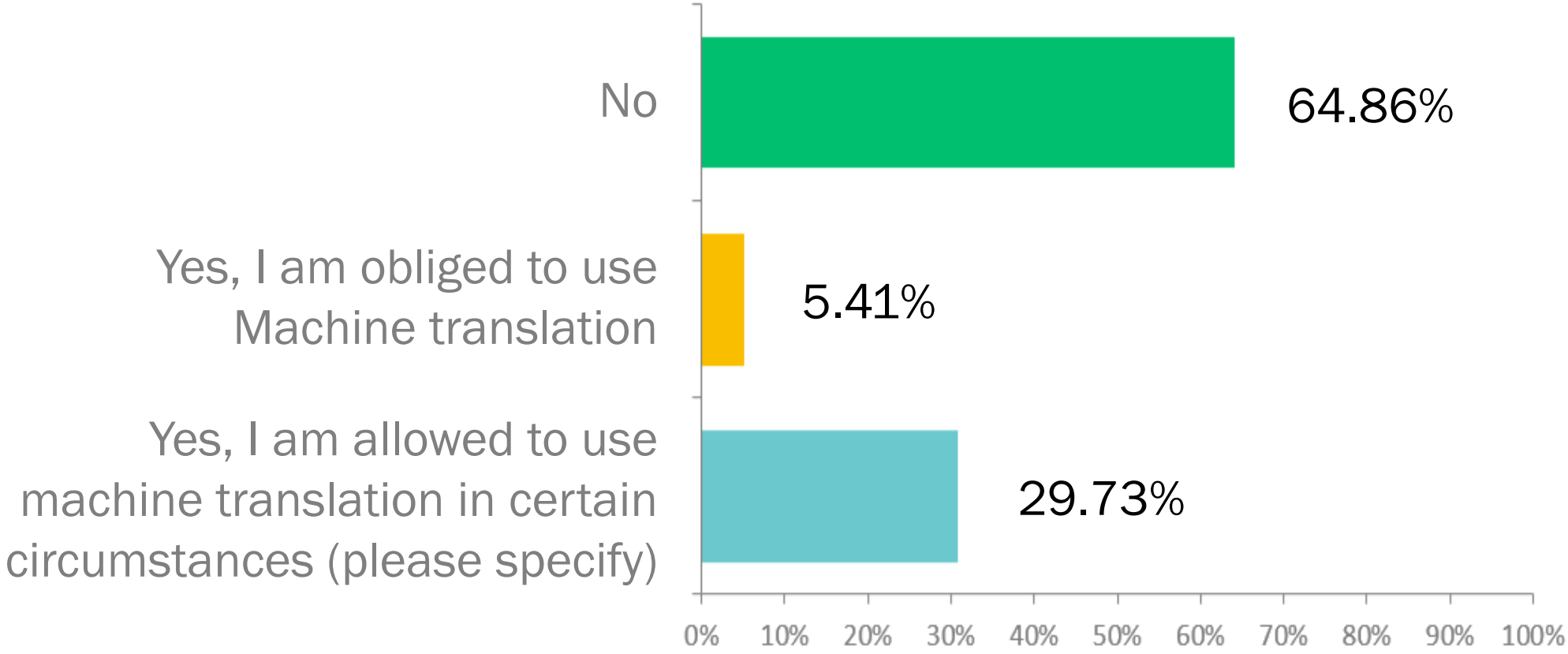
RESPONDENTS

- The mean professional experience was calculated at 21.00±12.38 years
- Translators with more experience are
  - Less likely to accept MTPE assignments than their less experienced colleagues (χ^2 (6, N = 419) = 29.01, p < .01)
  - Equally likely to use MT themselves in their own translation work (χ^2 (3, N = 415) = 0.39, p = .941)

RESPONDENTS

- Attitude towards using MT and accepting MTPE assignments was also found **not** to depend on:
  - The importance of translation among the language services the professional translator provides
  - The way the translator works (freelancer, inhouse, etc.)
  - The prevalence of the main language pair

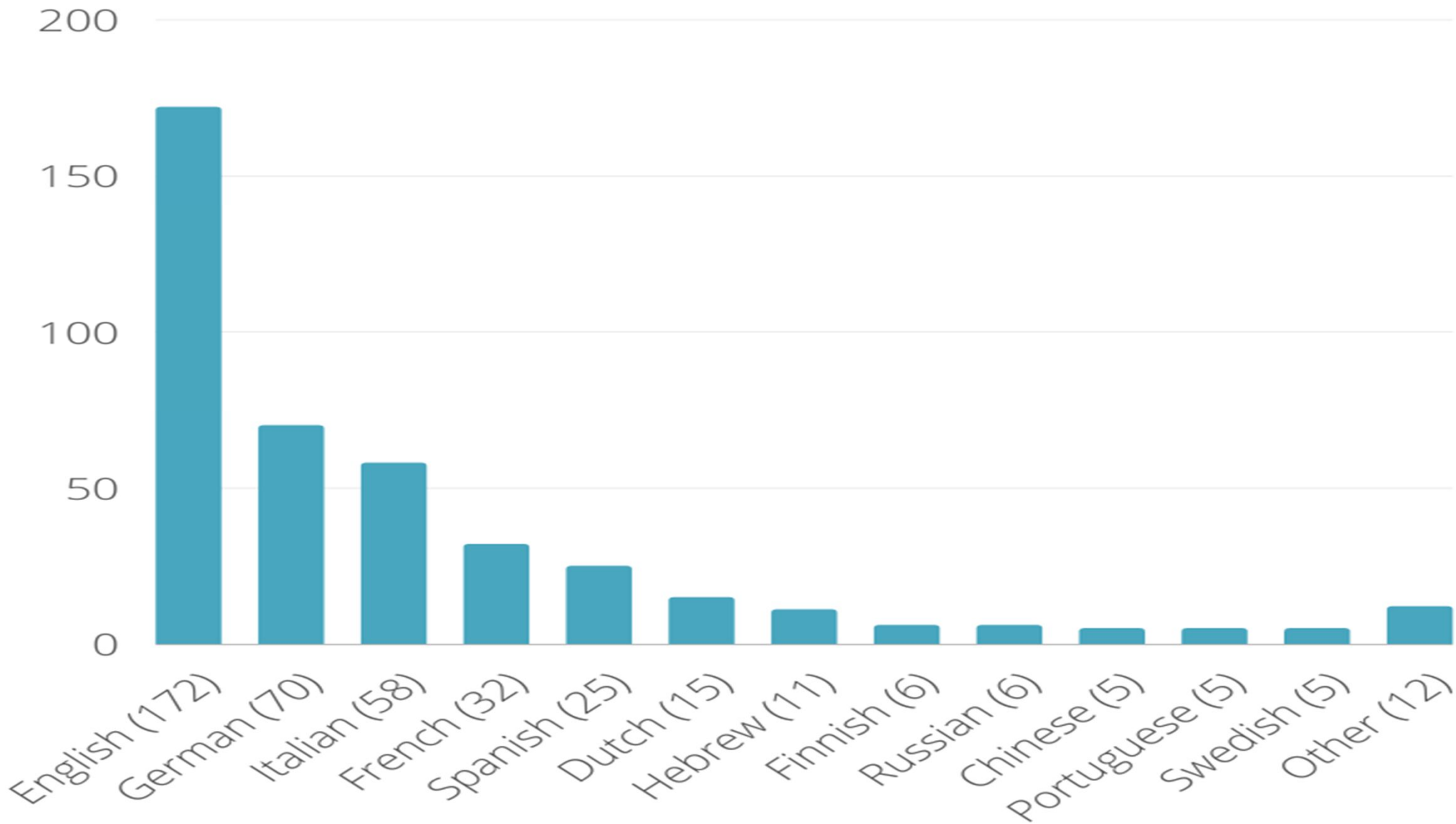
DOES THE ORGANIZATION YOU WORK FOR DICTATE THE WAY YOU USE MACHINE TRANSLATION IN YOUR WORKFLOW (ONLY ONE ANSWER ALLOWED)?



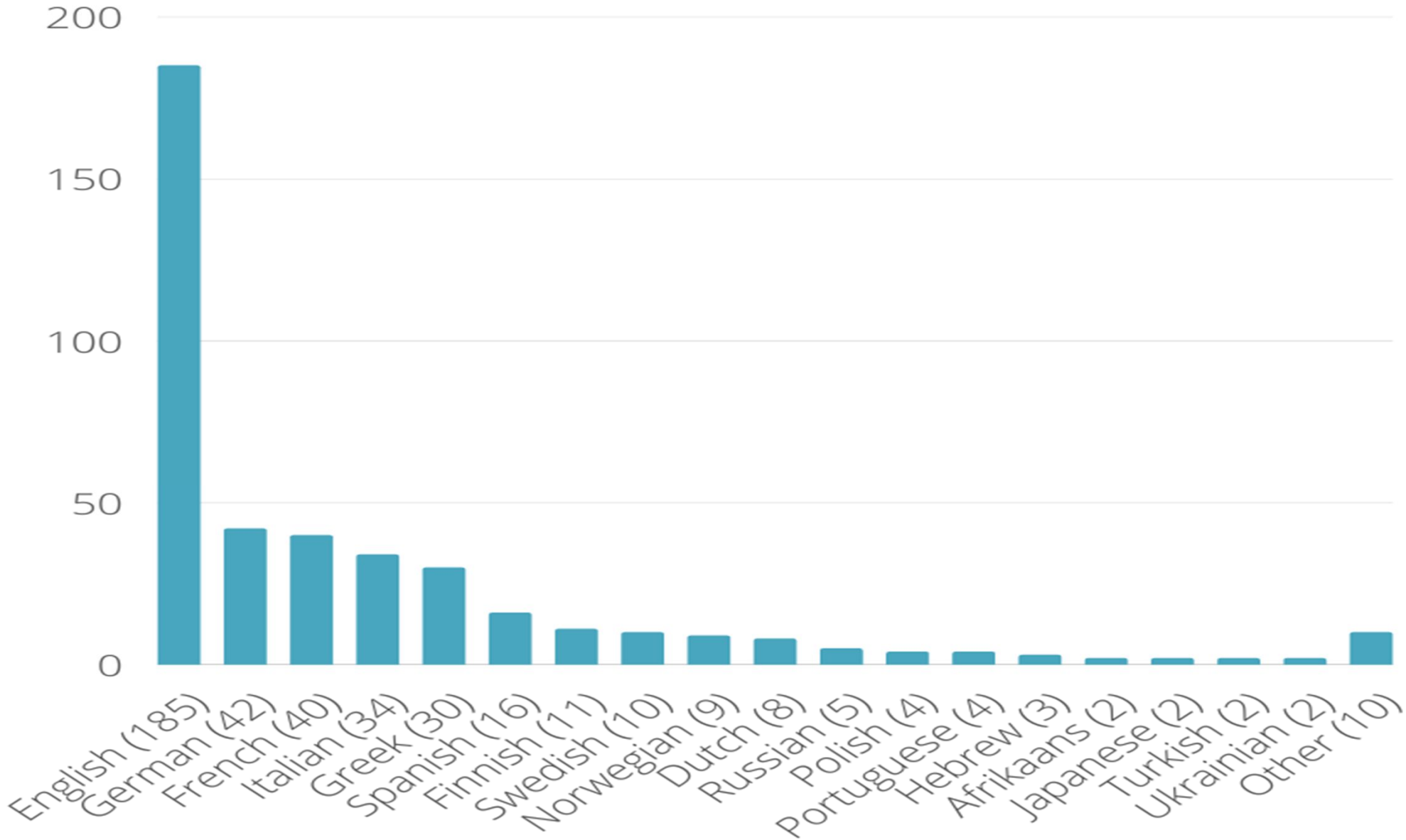
TRANSLATION LANGUAGES

- Professional translators might be expected to be more likely to consider post-editing assignments and use MT in their workflows if they work with higher-resource languages, for which the quality of MT output is normally better
- To verify this hypothesis, the Digital Language Equality Metric (technological factors) was used as a measure of language resource richness
- There seems to be a threshold under which professional translators are less likely to accept MTPE jobs
  - Source language TDLE score of somewhere between 13807 and 14765 and target language TDLE score of somewhere between 14765 and 15414
- However, there is no such threshold as regards using MT in their workflows, which confirms Zaretskaya's findings (2015)

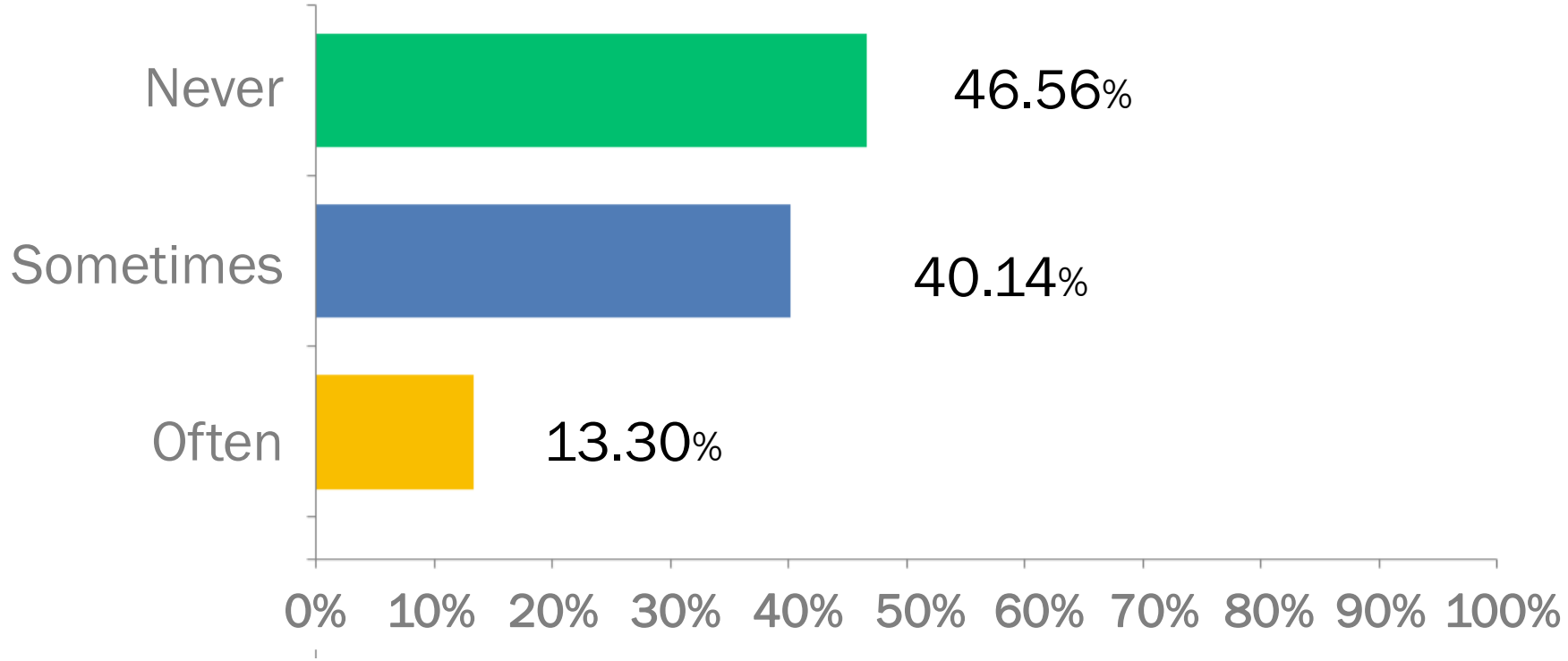
Main translation source language



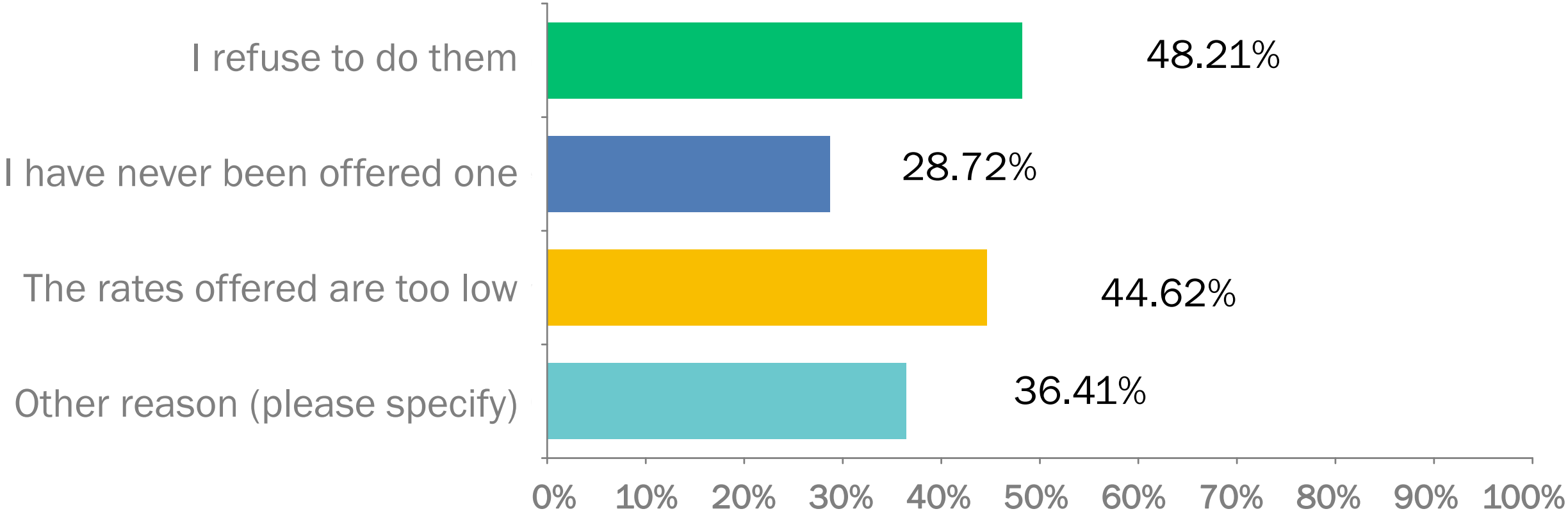
Main translation target language



DO YOU ACCEPT MACHINE TRANSLATION POST-EDITING JOBS?



WHY NEVER ACCEPT MACHINE TRANSLATION POST-EDITING JOBS



WHY NEVER ACCEPT MACHINE TRANSLATION POST-EDITING JOBS

- The four most frequent open-ended *other* answers given amounted to (in decreasing order of frequency):
  - A dislike for or little satisfaction from post-editing (one respondent used the expression “soul destroying”)
  - Post-editing requiring as much or more time than translation from scratch
  - MT giving poor results in the translator’s field of specialization
  - MT output being a bad influence on the translator or leading to bad translation habits

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STEALTH MACHINE TRANSLATION POST-EDITING JOBS

- Some translators reported that they suspected or were sure that some of the translations they were given to revise were in reality MT output or MTPE done by non-native speakers of the target language even though they were told they were human translations or texts written by non-native speakers

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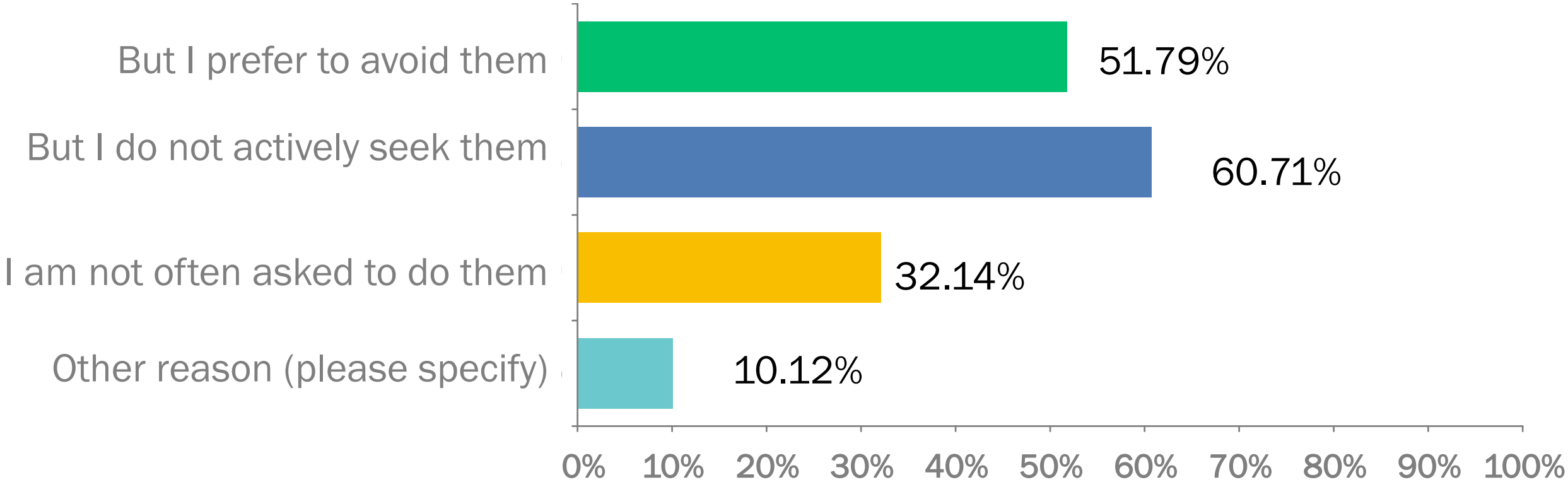
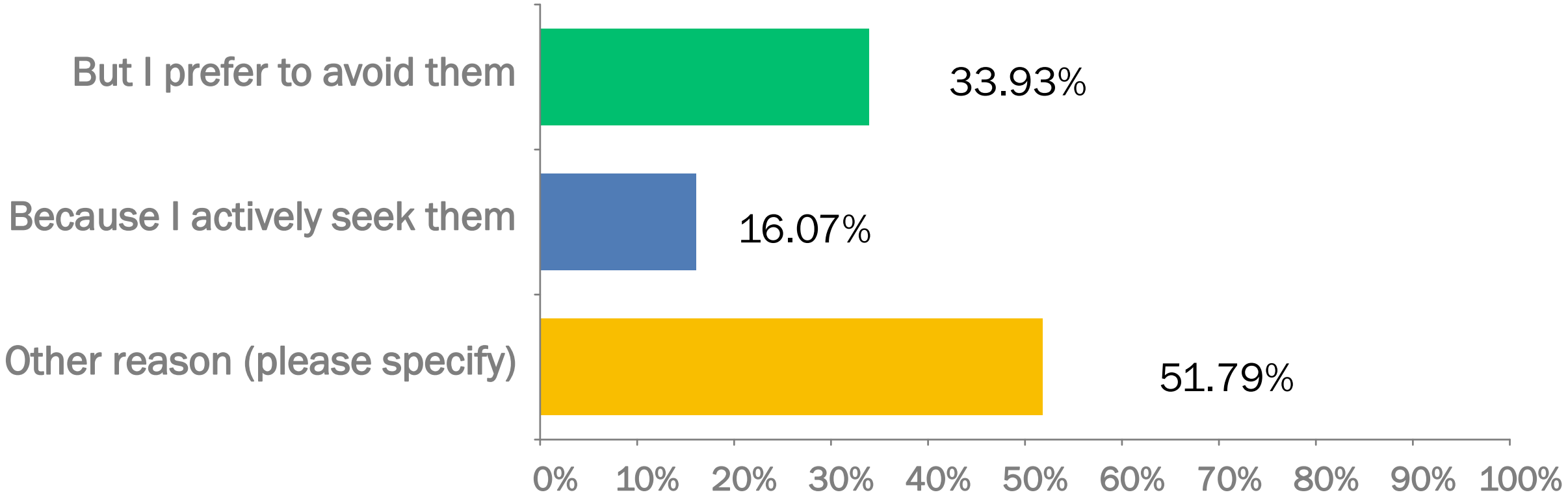
WHY ONLY SOMETIMES ACCEPT MTPE JOBS



WHY ONLY SOMETIMES ACCEPT MTPE JOBS

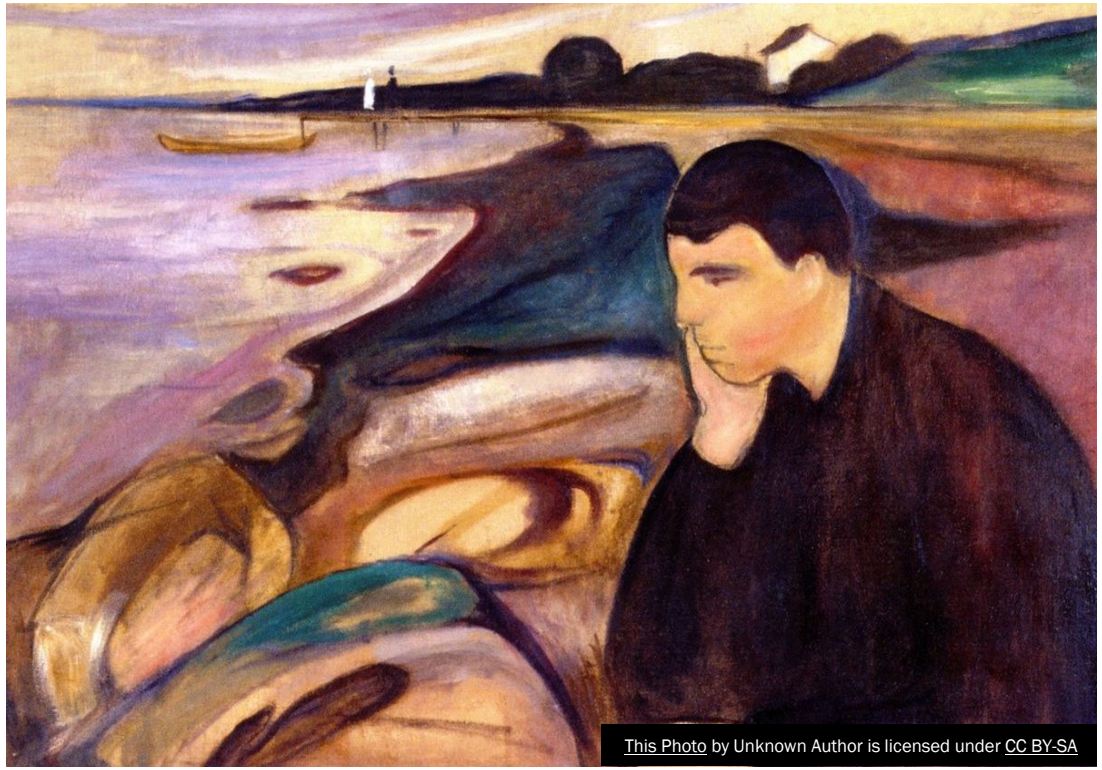
- Respondents could also leave an open-ended comment
- The main two amounted to – from most to least common:
  - Only if the rate is right
  - Maybe I am doing them without being told (i.e. *stealth* MTPE)

WHY OFTEN ACCEPT MACHINE TRANSLATION POST-EDITING JOBS



WHY OFTEN ACCEPT MACHINE TRANSLATION POST-EDITING JOBS

- The vast majority of those who wrote something under *other* said that post-editing is simply another language service
- Several comments seemed tinged with melancholic resignation: “because - while I don't love them - I cannot turn a blind eye to MT and pretend it's not there”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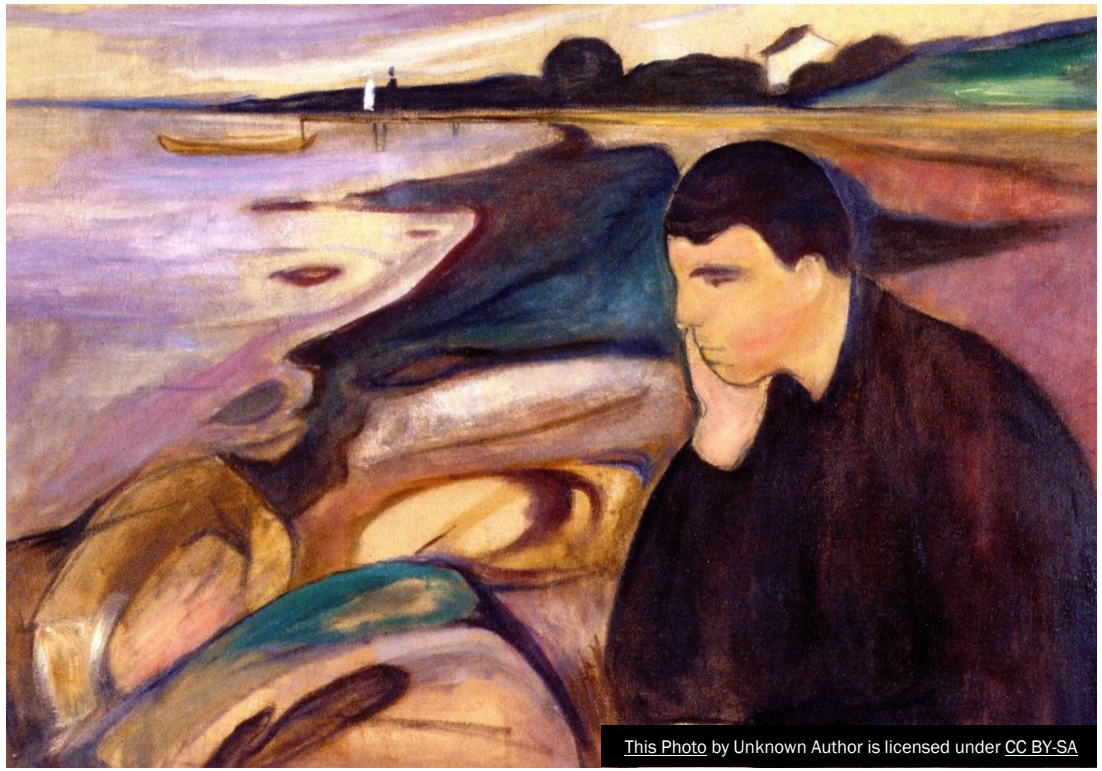
WHY OFTEN ACCEPT MACHINE TRANSLATION POST-EDITING JOBS

- One reason why so many translators seem to dislike post-editing may be that the rewarding part of the translation process lies in the sense of achievement attained when you elegantly express the same concept in the target language. Post-editing mostly removes this task leaving the translator the chore of dotting the i's and crossing the t's, which is felt to be less satisfying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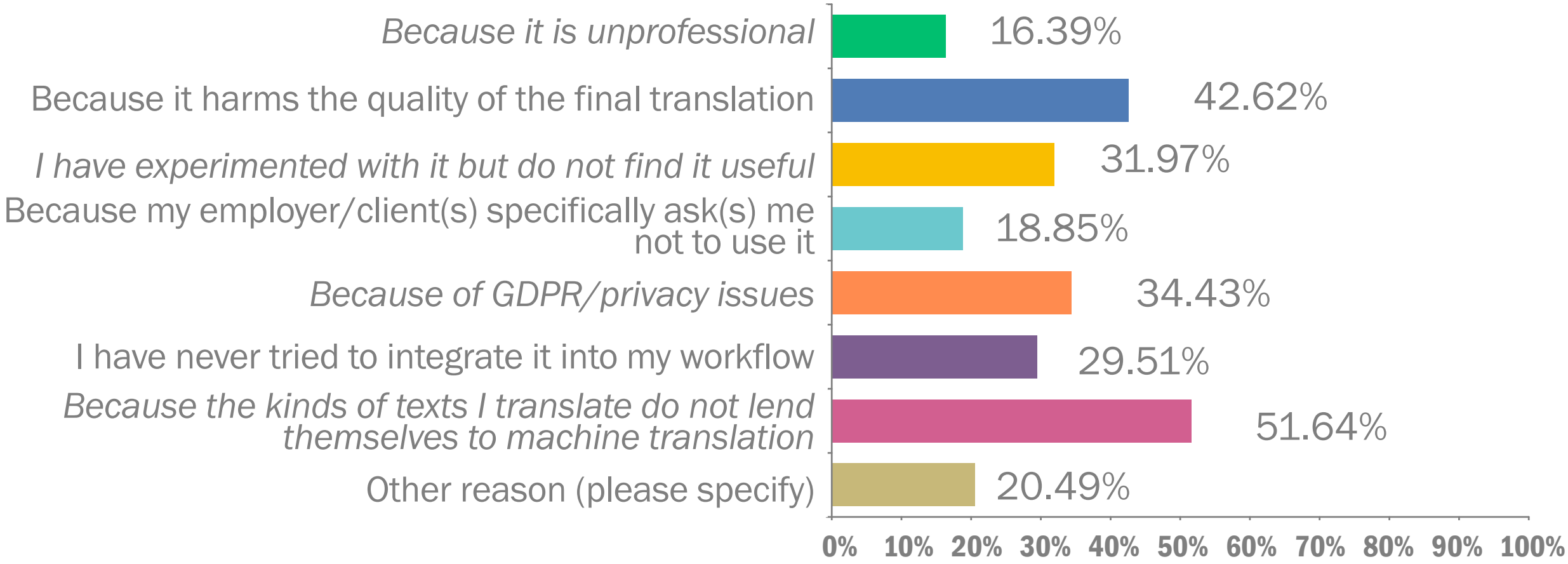
USE MT AT SOME POINT IN THE TRANSLATION WORKFLOW

- 69.54% of respondents use MT at some point in their translation workflow (MT-users)
  - This figure is virtually the same as the *slightly more than 70% of independent professionals* reported in the 2022 European Language Industry Survey (ELIA, et al., 2022)

USE MT AT SOME POINT IN THE TRANSLATION WORKFLOW

- No significant relationship was found between willingness to accept MTPE jobs from clients and using MT as an aid while translating (χ^2 (2, N = 417) = 1.45, p = .485)

WHY NEVER USE MT AT ANY POINT IN THE TRANSLATION WORKFLOW



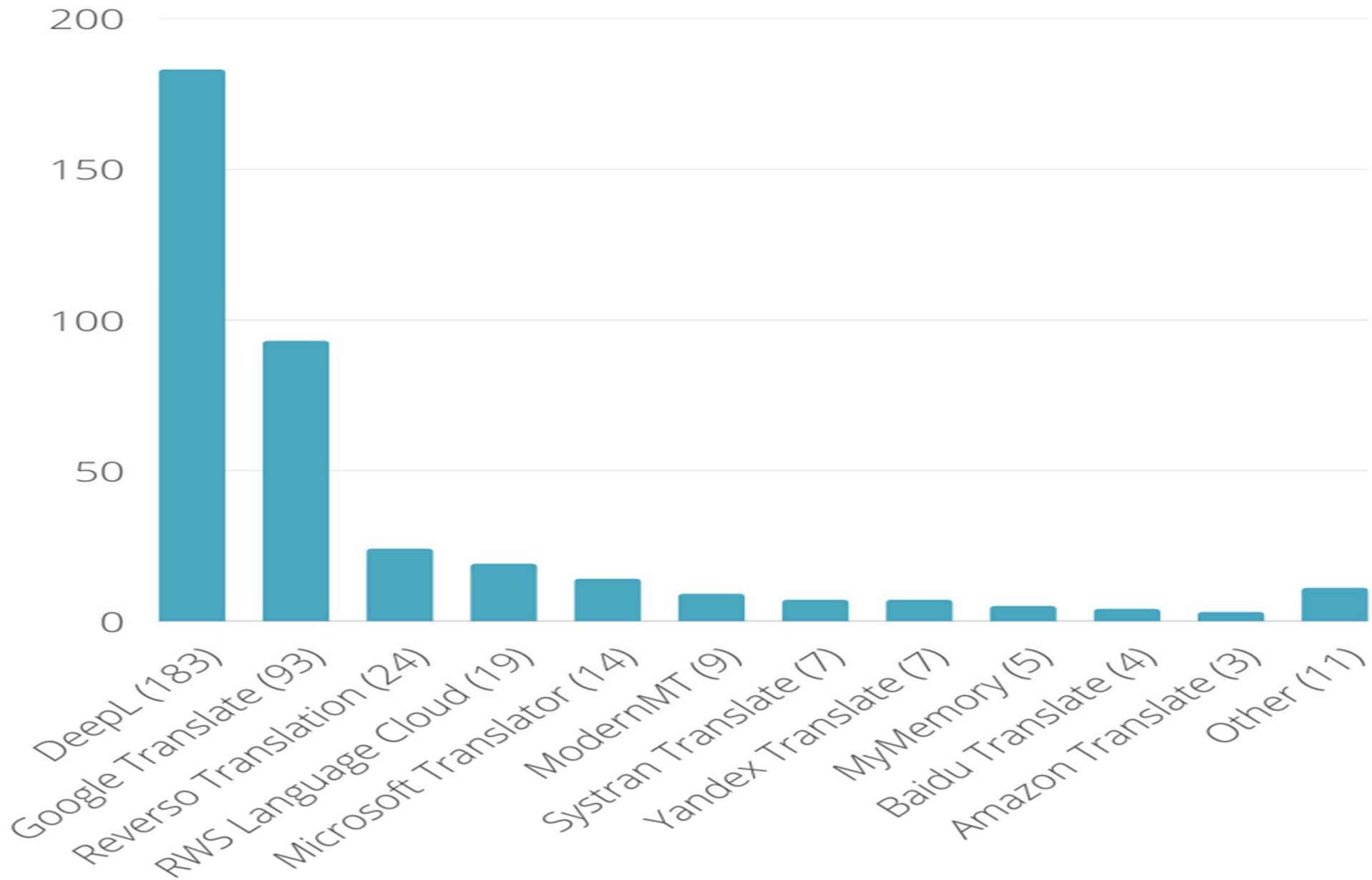
WHY NEVER USE MT AT ANY POINT IN THE TRANSLATION WORKFLOW

- Among the *other* open-ended answers given
  - Three respondents said that MT quality was not good enough in the languages they worked with
  - Two said they could not afford good MT output
  - Two did not want to provide the engines with training data and put their jobs at risk
  - One said it harms their language skills
  - One only translates handwritten documents

MT ENGINE

- 81.40% of MT-users said they use one or more cloud or web-based machine translation engines, as shown in the chart on the next slide…
- Multiple answers were allowed.

Cloud or web-based MT engines



MT ENGINE

- 50.85% of web-based-MT-engine-users said they pay to use the following MT engines (multiple answers were allowed):
  - DeepL (102)
  - Google Translate (20)
  - ModernMT (9)
  - Microsoft Translator (4)
  - Other engines (7)
- The others use the free versions

CUSTOM MACHINE TRANSLATION

- 18.59% of MT-users use custom machine translation engines (multiple answers allowed):
  - 37 of these use engines provided by employers/clients
  - 17 use their own engine
  - 3 use other engines

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NON-WEB-BASED MACHINE TRANSLATION ENGINE

- 1.07% of MT-users said they use one or more non-web-based machine translation engine, not including custom machine translation engines
- Only one person named a non-web-based MT engine: OPUS-CAT
- One translator said their clients use a non-web-based MT engine without stating which

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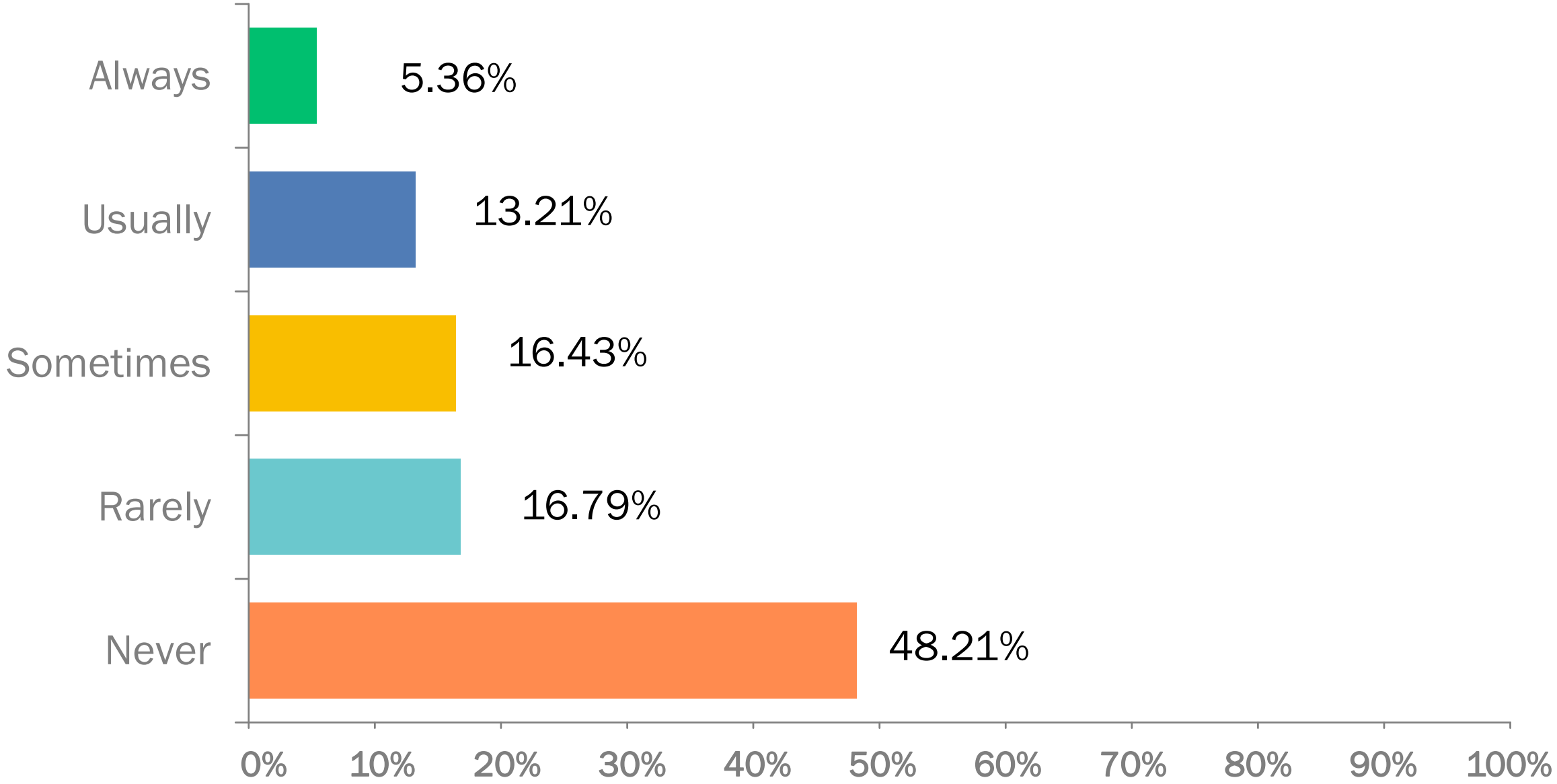
PURE POST-EDITING

- 51.79% of MT-users reported they do *pure post-editing*, which is when the translator decides to treat their own translation project as if it were a post-editing assignment
  - In other words, they receive a source text to translate from their client, machine-translate the entire text, and then carry out a full post-editing on the output

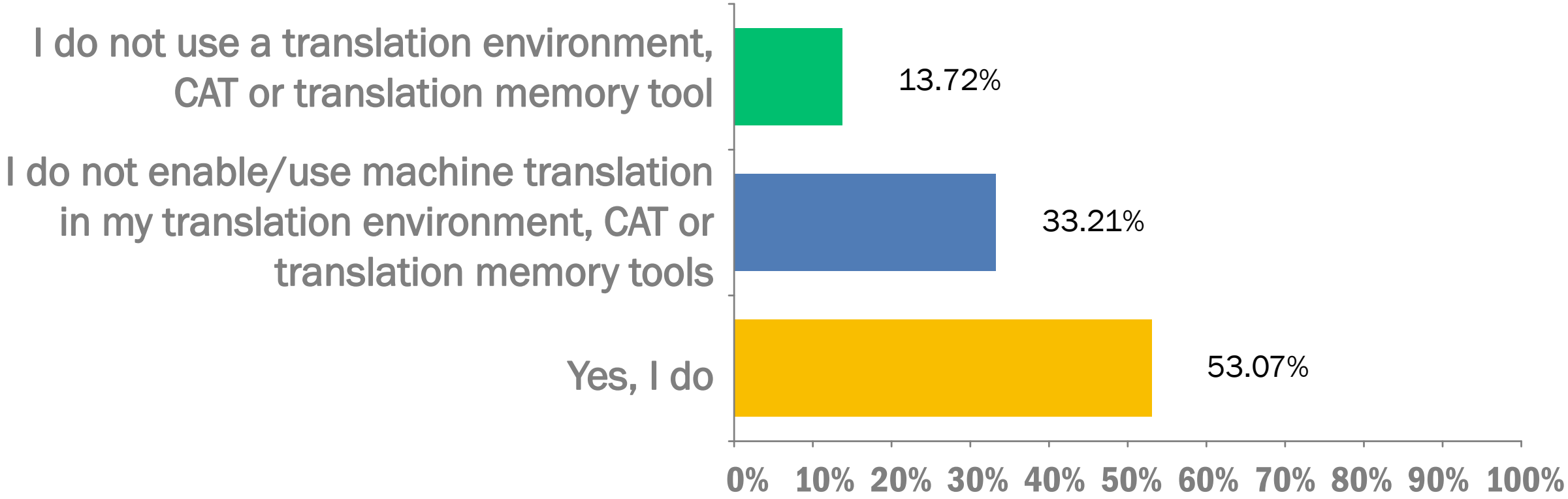
PURE POST-EDITING

- This can be done in a CAT tool or by feeding the source text to a MT engine and post-editing the output file in a word processor
- Perhaps unsurprisingly translators who do not accept MTPE assignments from clients are also less likely to do *pure post-editing* for themselves (χ^2 (1, N = 406) = 7.31, $p < 0.05$)

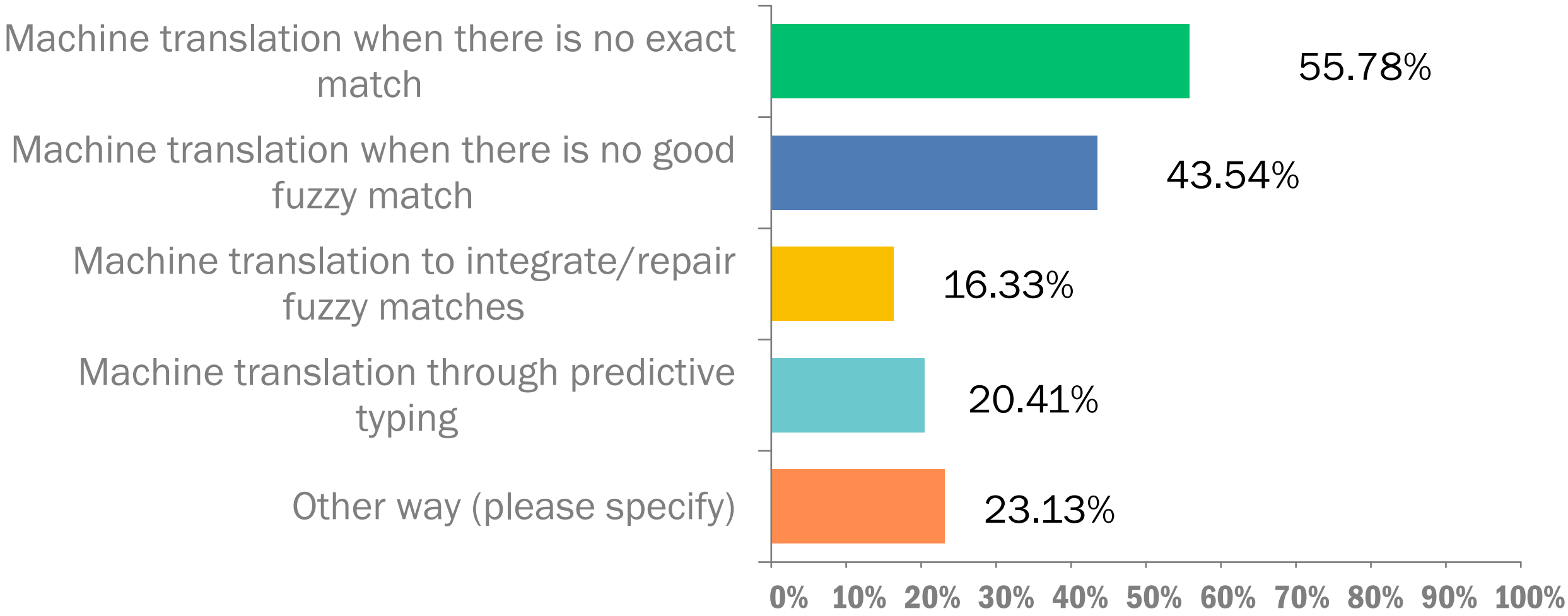
PURE POST-EDITING



HYBRID POST-EDITING



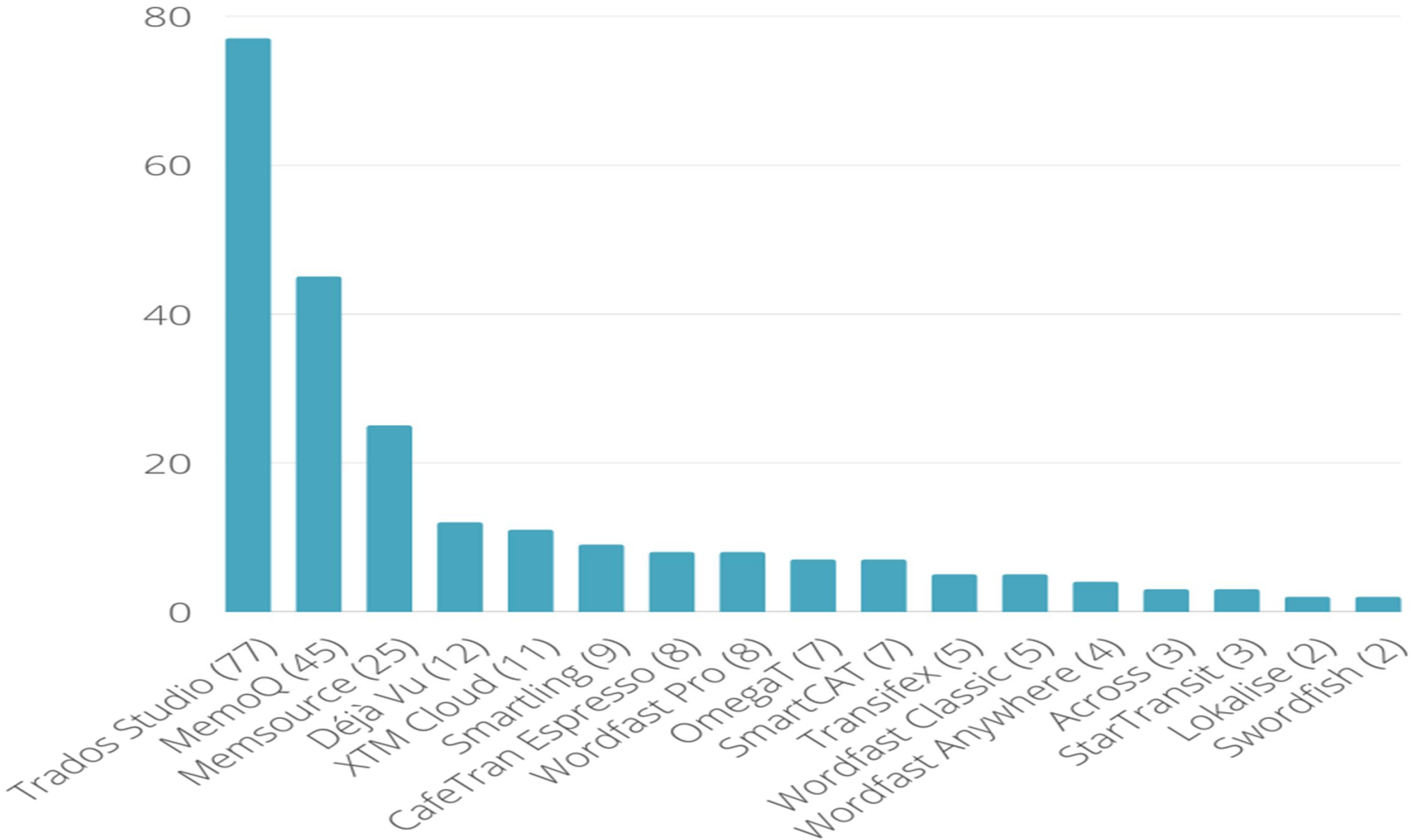
CAT MT FEATURES ENABLED



HYBRID POST-EDITING

- The CAT tools used for hybrid post-editing are shown in the chart on the next slide…

CAT tool used



MT AS A DICTIONARY

- In this use, the translator takes a single word, expression (phrase) or whole sentence and feeds it to a MT engine
- This can be done with a specific function inside a CAT tool by selecting a segment or part thereof

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MT AS A DICTIONARY

- It can also be done when using a word processor to do a translation with add-ons, such as GT4T or IntelliWebSearch, which can even be used as alternatives to enhance the built-in MT functions in CAT tools

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MT AS A DICTIONARY

- A less sophisticated technique entails the translator simply opening an online MT engine in a browser window and copy-pasting parts of the text
- 77.93% of MT-users use machine translation engines as if they were dictionaries in the following ways (multiple answers allowed):

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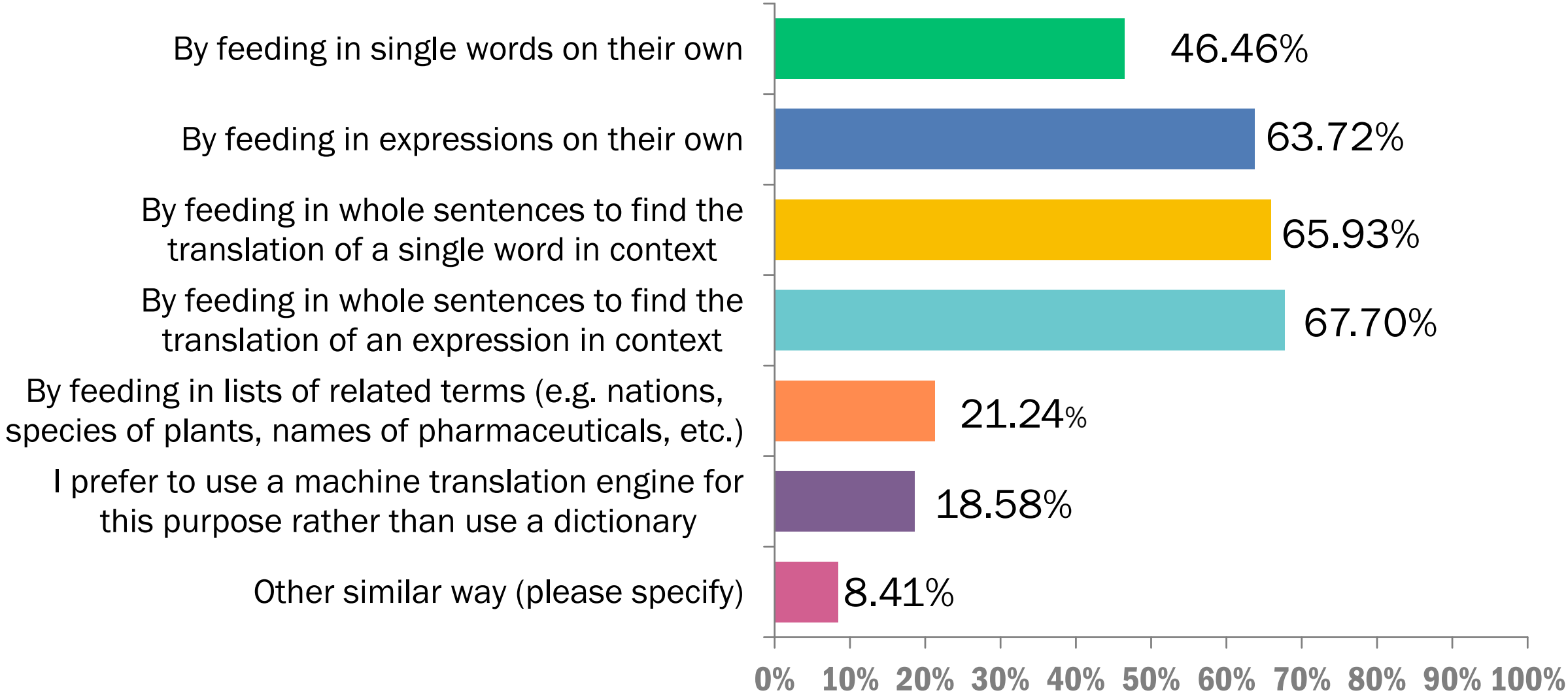
MT AS A DICTIONARY, HOW



MT AS A DICTIONARY, HOW

- It should be noted that the web interface of all the top eight engines, excluding ModernMT, give dictionary like results if a single term is input, complete with definitions and alternative translations
- The DeepL web interface also gives alternative translations for whole segments and, together with Systran, allow the user to click on any word in a segment (source or target) to see a definition, see next slide…

English French Automatic Glossary

A word

Un mot

Alternatives:

Une parole

Dictionary

word noun (plural: words)

mot m (plural: mots m)

Our son learned a new word today at school.	Notre fils a appris un nouveau mot aujourd'hui à l'école.
I chose the most suitable translation of the word.	J'ai choisi la traduction du mot la plus appropriée.

terme m

The same word can have different meanings.	Un même terme peut avoir différentes significations.

parole f (plural: paroles f)

MT FOR *INSPIRATION*

- One respondent clarified how this can be done: “I translate passages or sentences myself and then use the MT on the source text to see what it comes up with, and I may adjust my translation on that basis or indeed completely ignore the MT text. The MT never takes the lead but can sometimes be useful as a supplement”
- 86.21% of MT-users use MT this way

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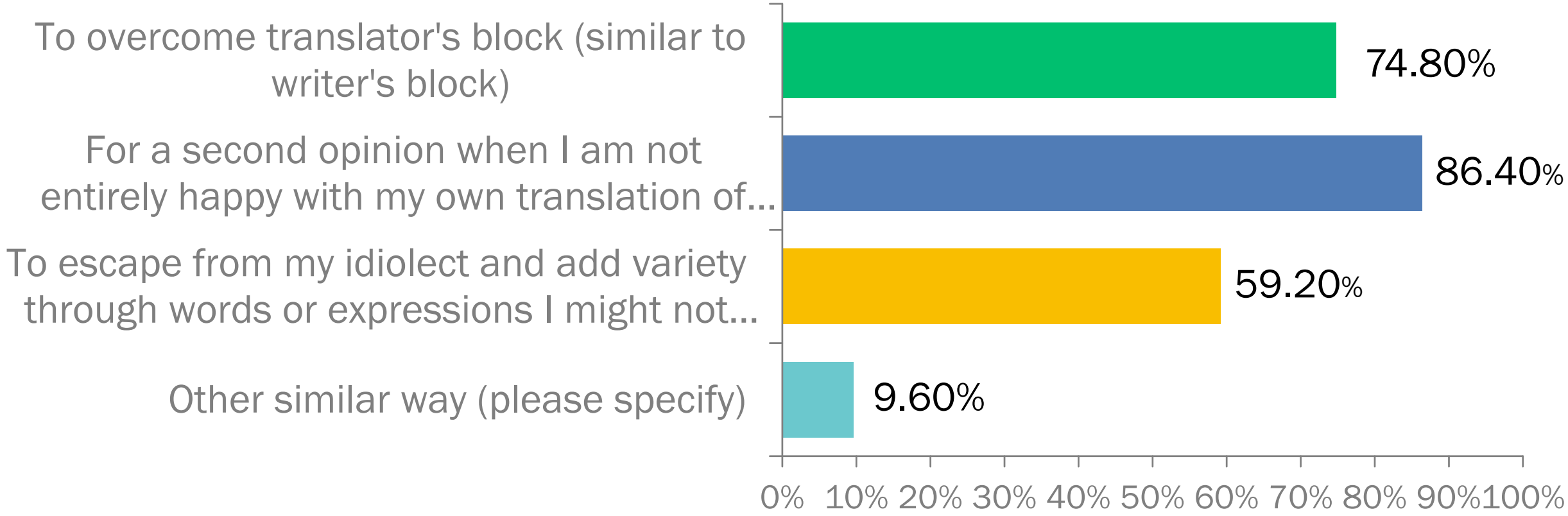
MT FOR *INSPIRATION*, HOW



MT FOR COMIC RELIEF

- 25.86% of MT-users reported that they use MT for an occasional giggle to brighten up their working day
- However, several respondents used the *other similar way* box to clarify that they do not intentionally use it this way but enjoy the odd chuckle when MT happens to produce entertaining output

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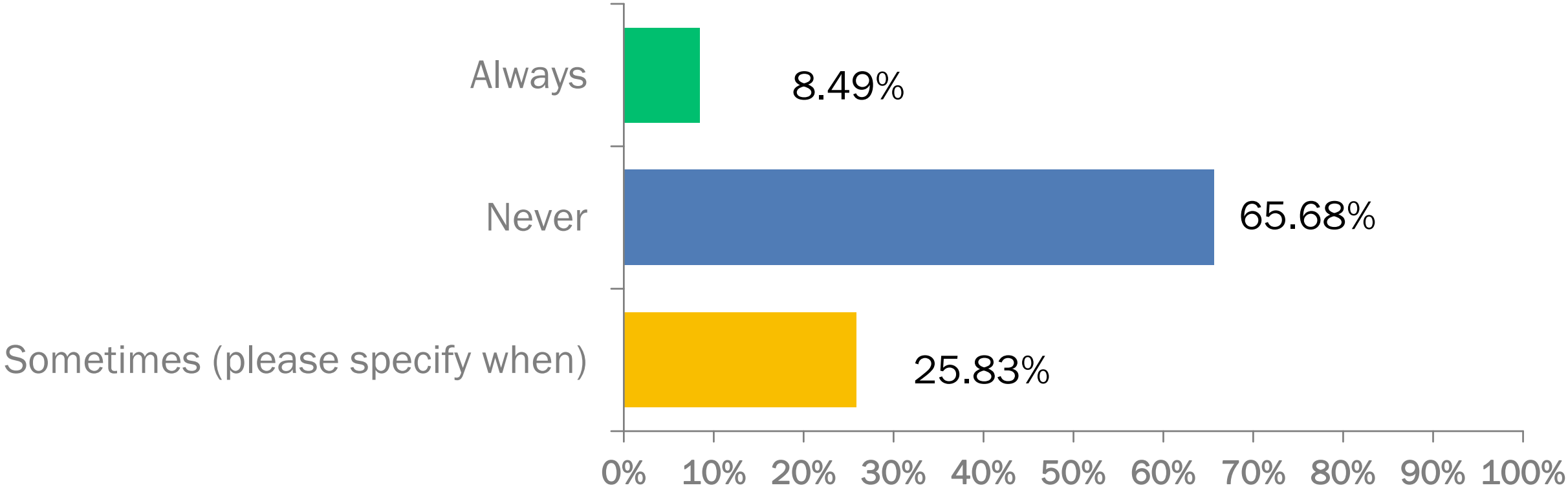
OTHER USES OF MT

- The only other uses of MT in the translation workflow that truly do not fit into one of the previous categories were:
  - The backtranslation of incomprehensible parts of source text written by non-native speakers into their native language (3 respondents)
  - As a sort of double check to prevent omissions or mistakes during the revision process (1 respondent)
- All the other replies could be reclassified as answers to other questions

DO YOU TELL YOUR EMPLOYER/CLIENT(S) YOU USE MACHINE TRANSLATION IN YOUR WORKFLOW?



DO YOU TELL YOUR EMPLOYER/CLIENT(S) YOU USE MACHINE TRANSLATION IN YOUR WORKFLOW?

- Those who answered *sometimes* also specified when
- The most common replies - in descending order of frequency – are:
  - “if asked”
  - “when the client has specifically asked for MT to be used”
  - “when the translator decides to do *pure MTPE*”
  - “when I think they should know”
  - “when they know already”

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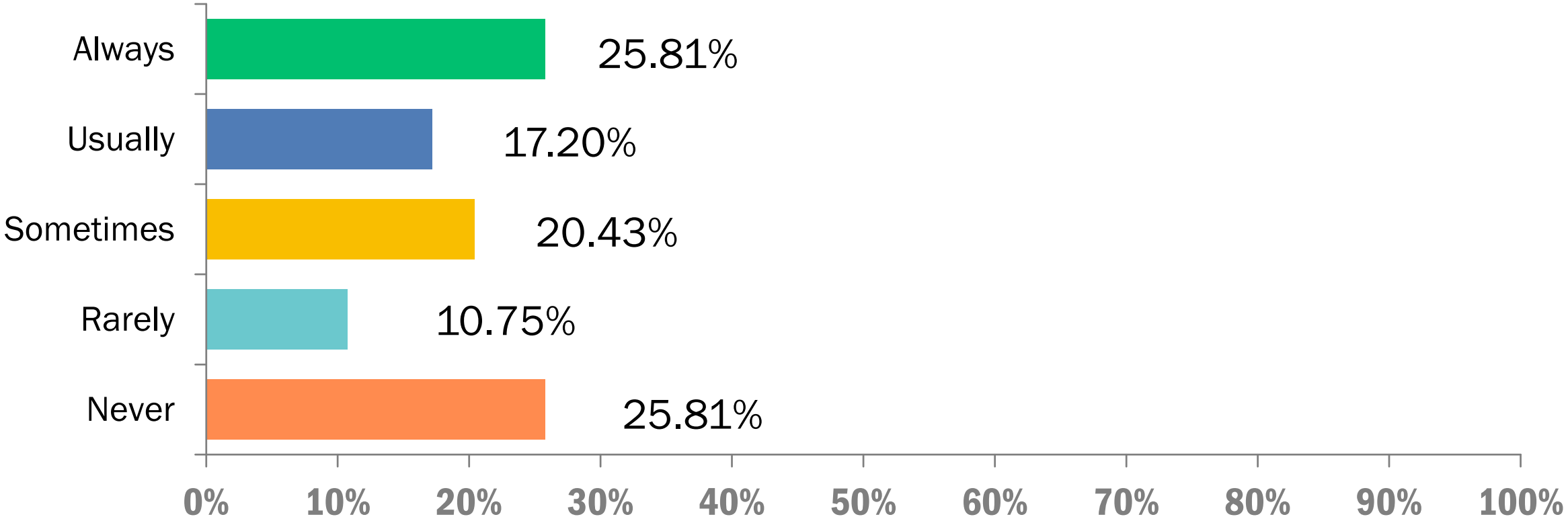
WHEN YOU TELL YOUR EMPLOYER/CLIENT(S) YOU USE MACHINE TRANSLATION, DO YOU EXPLAIN PRECISELY HOW YOU USE IT?



OTHER LANGUAGE PAIRS

- 86.62% of MT-users who work with more than one language pair reported that there are no significant differences in the way they use machine translation in pairs other than their main one

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OTHER LANGUAGE PAIRS

- The reasons given by the respondents who use MT in a different way according to language pair can mainly be categorized as (from most to least common):
  - “MT output is better/worse for the other language(s)”
  - “Because my knowledge of the other language(s) is weaker”

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DO TRANSLATORS USE MACHINE TRANSLATION AND IF SO, HOW?

THE END