

MT investment validation model



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A unique localisation customer experience



Established

2018



Annual turnover

\$17m



Employees

170+



Top 65

In the global
LSP rankings



70+

languages offered



7

Business units
and growing...

Our Locations



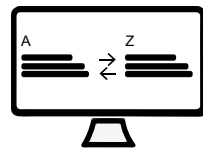
Some of our specialist language Services



Document
translation



Website
localization



Software
localization



E-learning
localization



Technical
translation



Legal
translation



Financial
translation

A unique localisation customer experience



Being customer centric means that

We combine the strength of...

with the...

Our in-house staff

- » Core delivery functions all in-house
- » Language specialists who are dedicated to your company, brand, and content
- » Translation ecosystem that allows for continuous knowledge sharing
- » Clients can put a face to their t'works team

Flexibility of being technology agnostic

- » Technology selected for a project based on client's program requirements
- » Processes and workflows optimized to coordinate with chosen technology solutions
- » In-house teams experienced in multi-tool strategies and deployment
- » Highly complex localization programs executed with bespoke technology approach



To deliver ROI and value through an in-house model



Machine Translation Philosophy @ tworks

MT is a means, not an end in itself

Machine Translation Strategy @ t'works

MT Technology Agnostic

- Technology must serve the PEMT program's purpose
- Choose best technology fit for client's PEMT program objectives
- Highly secure PEMT workflows: customer IP retained and protected

MT

In-house post-editing team

- Post-editing industry best practices
- Select post-editors whose strengths match the chosen MT solution
- TAUS certified post-editors
- Continuous improvement through community environment



In-house team conducts MT research and development



MT Integrated with secure localisation workflows



Clients have access to specialized in-house translators and post-editors

The omnipresent problem

- Localization ROI is traditionally complex to measure, many times subjective
- The budget holder and the localization manager don't always speak the same language



Tough and frustrating conversations to secure the budget
Localization is all about **building bridges** between people that speak different languages

Why not apply the same principle?

MT investment validation model

The NPV (Net Present Value) approach

- Investment analysis framework used since the 1950's
- The NPV is one of the most widely used tools in investment analysis.
- Quantifiable => better quality localization business cases
- Easier conversations and less frustration
- Potentially higher success rate
- Not the “silver bullet” but a clearer framework to discuss ROI for MT programs



“Win-Win”

MT ROI measurement model – key components/concepts

 I_0

initial investment
(The number to beat)

 CF

Investment's annual net
cashflow (revenues and savings
– running costs)

 $(1+RR)$

the discount factor; return rate of
best
available investment alternative

Net present value (NPV) is an investment analysis methodology that measures the difference between the initial project investment and the net present value of cash flows generated by that investment over a period of **time**, using the **DCF (Discounted Cash Flow)** methodology.

The following formula is used to calculate the NPV:

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+rr)^t} - I_0$$

Decision criteria:

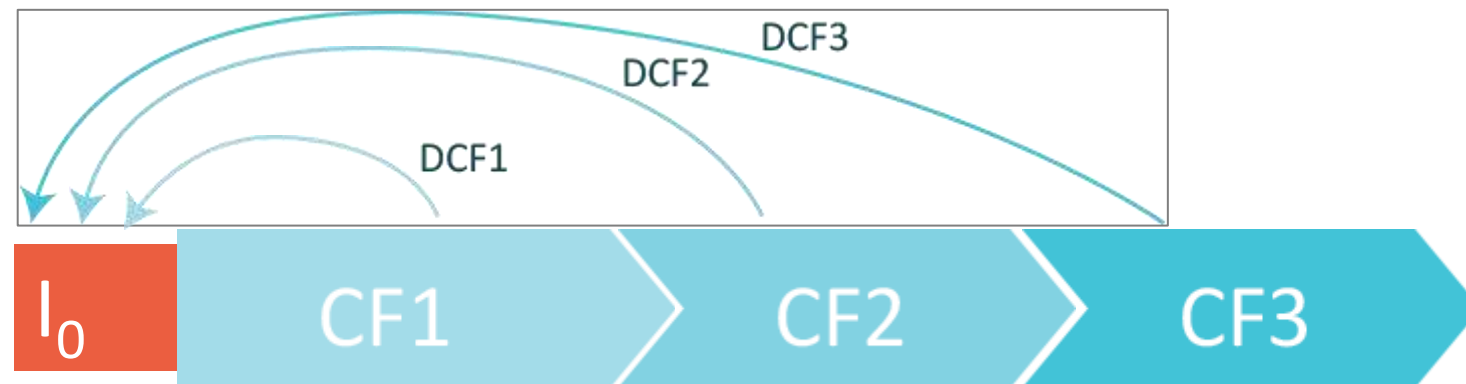
If NPV > 0 then invest

If NPV < 0 then do not invest

MT ROI measurement model - NPV

Introducing Time and DCF in the NPV model

- Time and DCF (Discounted Cash Flow) are key concepts in understanding the model's dynamic
- 1\$ today is different from 1\$ tomorrow (inflation, interest rate)
- Comparing “apples with apples” – cashflow aligned in time



NPV model applied to MT – how does it work?



I_0

deployment investment for
MT program

- Annual license for year 1
- Hosting costs year 1
- Software deployment costs
- Includes data cleansing and language asset optimisation (TMs, glossaries and monolingual content) and make them available for engine creation
- Includes building and setting up the engines for production and gisting purposes
- Includes testing and evaluating the best engine options (on real projects)
- Includes fine tuning the chosen engine before the “go live” stage
- Includes any integration required

CF

annual net cashflow (return and
savings – running costs)

Return and savings:

- Includes the PEMT savings effect on current translation rates
- Includes the effect of faster time to market for your products that will generate more sales
- Includes savings based on an Enterprise MT service managed solution

Annual costs:

- Includes building new engines for new languages
- Includes retraining of the existing ones
- Add specific features (for example a specific glossary for a specific product line)
- Annual licenses for years 2 and 3
- Engine hosting for subsequent years

$(1+RR)$

return rate of best
available option

What would you alternatively do with the funds available to optimise your localisation output and what return rate you would expect from it.

- For example, the cost of an authoring tool to improve TM matching that would save you 10%
- The estimated return of another (best) available MT option
- The estimated return of training the technical writing team to improve source content
- Return of cleaning and optimising the language assets (TMs, glossaries)
- Return of hiring additional internal translators

MT ROI measurement model - maturity



$$\text{NPV} = \frac{CF_1}{(1+rr)} + \frac{CF_2}{(1+rr)^2} + \frac{CF_3}{(1+rr)^3} - I_0$$

Like in any investment project, there are a number of assumptions we have to make, namely that the MT program will reach its maturity in 3 years. This is debatable but our data gives us some hints in that direction.

Decision criteria:

If $\text{NPV} > 0$ then invest on MT

If $\text{NPV} < 0$ then do not invest in MT

MT ROI measurement model – client case



Context:

- Large European Manufacturer with global footprint
- Mature and centralised localisation model
- Localising tech pubs content into 20+ languages
- Increasing volumes in top 10 languages
- Long-time user of a translation management system
- Mature terminology management (high quality glossaries)
- Large amount of content stored in translation memories
- TEP applied to technical content
- Average volume per language 800000 words
- TM leverage 68%
- New words: 32% of total
- Average NW rate 0.145\$ + 5% PM fee (top 10 languages)

MT Deployment:

- Evaluating deploying a global MT program across 10 of the 20 languages
- Evaluating other mutually exclusive investments (authoring tool and TM clean-up)
- Client wants to know the MT program's expected ROI => sell internally

MT ROI measurement model – client case



I_0 – Initial investment

- Year 1 software license
- Client's language assets preparation, cleansing and optimisation
- Building several customised candidate engines
- Testing and evaluating engine performance - Automatic and Human evaluation (DQF)
- Detailed findings report
- Pre deployment systems configuration
- Engine deployment costs
- Total initial investment 93000\$ (all languages)

MT ROI measurement model – client case



MT program Annual benefits and costs (Annual Net Cash Flow \$)

Benefits (Cash inflow)

- Expected annual savings in NW rates through PEMT is 25% (92800\$ across all 10 languages)
- LSP PM fee decrease from 5% to 3% (9540\$ savings across all 10 languages)
- **Annual MT running benefits 102340\$**

Costs (Cash outflow)

- MT license annual cost (unlimited use)
- Engine retraining (all 10 languages, once a year)
- Annual Hosting cost (10 engines)
- **Annual MT running costs 44000\$**

Benefits of the alternative investment to MT program (discount factor rr in %)

- New authoring tool, will increase TM matching/leverage in 9%
- Major review/cleaning TMs and glossaries, estimated 13% more leverage from TMs
- 22% better matching is estimated to produce **8% of budget savings per language**

MT ROI measurement model – client case



$$NPV = \frac{CF_1}{(1+rr)} + \frac{CF_2}{(1+rr)^2} + \frac{CF_3}{(1+rr)^3} - I_0$$

$$NPV = \frac{(102340\$ - 44000\$)}{(1+8\%)} + \frac{(102340\$ - 44000\$)}{(1+8\%)^2} + \frac{(102340\$ - 44000\$)}{(1+8\%)^3} - 93000\$$$

NPV = 57347.84\$ (ROI for Global MT Program)

NPV > 0 the decision is to move ahead with the MT program

Notes:

rr is 8% and represents the expected return of the alternative investment

I_0 - All initial costs of the MT program

CF_1 (Savings – yearly costs) will be (102340\$ – 44000\$ = 58340\$)

CF_2 (Savings – yearly costs) will be (102340\$ – 44000\$ = 58340\$)

CF_3 (Savings – yearly costs) will be (102340\$ – 44000\$ = 58340\$)



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THANK YOU!

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