

‘The winner takes it all!’

Learning from Computer Simulations in the Design of Contracts in W2W

Liverpool, 2 July 2010

Arthur van de Meerendonk – www.m13.nl



• Introduction: Arthur van de Meerendonk

• Previous: Ministry Social Affairs and Employment

- **SUWI and Work and Social Assistance Acts**
- **Co-ordination reintegration market**



• Current position: private consultant and trainer

- **Several assignments for large cities (Amsterdam and Rotterdam)**
- **UWV (advising on procurement of W2W services)**
- **International involvements (ILO and Flanders/Belgium)**
- **Associate (part-time) Maastricht Graduate School of Governance**

Magazijn13 specialisation: 'strategic governance issues'

• ... let's start with a game...

- **Suppose we are the management of a W2W Service Provider ...**
- **... and we engage in competition for FND Contracts**
- **What will our strategy be? ...**
- **... and will this result in achieving value for money for DWP?**



Some backgrounds for developing Pre-Tender

The institutional framework in NL the flow of services



- **Three streams (three benefit regimes)...**
 - **sick/disabled (UWV = responsible for benefits)**
 - **laid off (UWV = responsible for benefits)**
 - **inactive or long-term unemployed (municipalities)**

• Institutional background (slide 2)

The institutional framework

(continued)



- **The sickness/disability stream ...**
 - **wage continuation (24 months)**
 - **at the gate: UWV performs assessment**
 - **DI**
- **reintegration (contracted out to private provider)**

• Institutional background (slide 3)

The institutional framework

(continued)

- **Laid off workers (UI entitlement) ...**



- **report at UWV Werkbedrijf**
- **receive basic services ...**
- **... after 6 to 12 months eligible for intensive services**
- **reintegration (contracted out to private provider)**

• Institutional background (slide 4)

The institutional framework (continued)

- **inactive and LTU (SA entitlement) ...**
 - **report at municipal service**
 - **reintegration**
 - **in house servicing (public case manager) or,**
 - **contracted private provider**



• Institutional background (slide 5)

WWB (Work and Social Assistance Act 2004)

Municipalities responsible for reintegration for LT beneficiaries and non-beneficiaries in working age



- **receive a capped budget**
- **retain savings in benefit expenditure**
- **separate budget for reintegration services**
- **flexible to deliver services in-house or contract-out**

OECD labeled the NL a “two-tier quasi market”

• Institutional background (final slide)

Difference Netherlands and UK is in the number of procuring organizations (>400 in NL)

This has some advantages, for example...

- enhanced scope for experimenting and learning from experiences



However, this potential for learning is not well organised!

- there is a repeated practice of 'inventing the wheel' in contracting

Contracting = a process of 'trial and error' ...

- this is not efficient! ...
- ... and even wasteful in cases where the wrong provider is selected.



• Pre-Tender – a tool for accelerated learning

Pre-Tender has been developed to avoid this ‘trial and error’!

Academic (theoretical) background:

- **new institutional economics: information imperfections, incomplete contracts, etc.**
- **game theory, ‘mechanism design’**

Practical background

- **experiments with professional bidders (to learn from their strategies)**



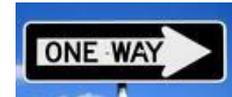
- **consultations with providers and government organisations**

• Pre-Tender (continued)

Applications:

- in **training** sessions (several Ministries, Rotterdam, UWV, ...)
- and for **testing** contract design, i.e. finding: ...

- (1) how to **select** the best **service providers**, and
- (2) how to **drive** their **performance**?



• **Pre-Tender** (continued)

Pre-Tender allows for testing a broad range of contracts:

- **Price Auctions and Multi Criteria Auctions (EMAT)**
- **variable settings of weights and scoring methods**
- **variable funding schemes (incl. up-front and outcome funding)**
- **Star rating or Licensing (Q-Certificate)**
- **differentiating between jobseeker categories...**
- **... and between short and long-term (sustained) outcomes**

• Experimenting in the Lab

- **Spring 2010: an experiment at Maastricht University**
- **Aim was to find successful provider strategies**
- **64 participants were divided in two groups:**
 - **Profit and Non-Profit providers**
 - **participants were paid for their performance (#)**
- **The strategies have been used to construct ‘Agents’**



(#) : the payouts to participants were funded by Metrica

■ Experimenting in the Lab (continued)

Some results (NB: these results are preliminary...)

Reference Scenario (#)

	Contract Fee	Placement outcome	Sustained outcome
all providers	€ 4.306	63%	46%
profit	€ 4.025	51%	32%
not-for-profit	€ 4.587	76%	61%

(#: full outcome funding + Star Rating)

Alternative Scenario1: Partial Up Front Funding

	Contract Fee	Placement outcome	Sustained outcome
all providers	€ 3.511	56%	40%
profit	€ 3.096	29%	15%
not-for-profit	€ 3.823	76%	59%

Alternative Scenario2: Licensing

	Contract Fee	Placement outcome	Sustained outcome
all providers	€ 4.531	62%	44%
profit	€ 4.455	54%	36%
not-for-profit	€ 4.606	70%	52%

• Experimenting in the Lab (continued)

Other results from the experiment:

- Outcome funding attracts a **risk premium** in competitive price arrangements
- ... however, outcome funding can also be trigger for performance
- This applies to profit oriented providers in particular
- No evidence for creaming, but some indirect evidence for **parking** behaviour
- The contracting framework should not allow for 'windfall profits'
- **Reputation** is an important **driver for performance**

• taking contract design to the ‘windtunnel’

We have four Agents with different ‘characters’

- **Agent 1: “Lucifer Enterprises”**, a **price fighter**; highly **profit oriented**, does **NOT** deliver upon promises
- **Agent 2: “Global Saints”**, **outcome oriented**, strives for the **social optimum**, **honest!**
- **Agent 3: “Mission Accomplished”**, **reputation oriented**, highly **‘KPI driven’ (not-for-profit)**
- **Agent 4: “Columbus Ventures”** **pragmatic provider**, seeks the **‘loopholes’ in the contract**, **learns from successes/failures in previous rounds**



• taking contract design to the 'windtunnel' (continued)

We can now let these Agents compete for various contracts

- **Both contracts** : full outcome funding, Star Rating

- **Contract 1**: price weights 40 per cent in the awarding
(the other 3 criteria 20 per cent)



- **Contract 2**: reputation (Star Rating) weights 40 per cent
(the other 3 criteria 20 per cent)



... let's test!