Title : Quotations for water connections completed in more than 8 days

Author :　　**Start date:**　　**Maj :**

Pb: 75% of quotations are sent in more than 8 days, instead of 0%.

Background :

24 / 8

quotations in less than 8 days

The company has been delegated to carry out the drinking water connections.
To do this, it must first provide the customer with a quotation within a maximum of 8 working days.
Currently, the average is 32 days, with lead times ranging from 16 to 56 days to provide the customer with a quotation.

Customer Impact :
The mayor has to travel 10 km to buy his bread where no one will ask him about the status of his water connection estimate. He's fed up!

Impact Enterprise :
Risk of 25 euros per day of delay and per quotation.
200 requests per year x 25 days' delay = a risk of €125,000.
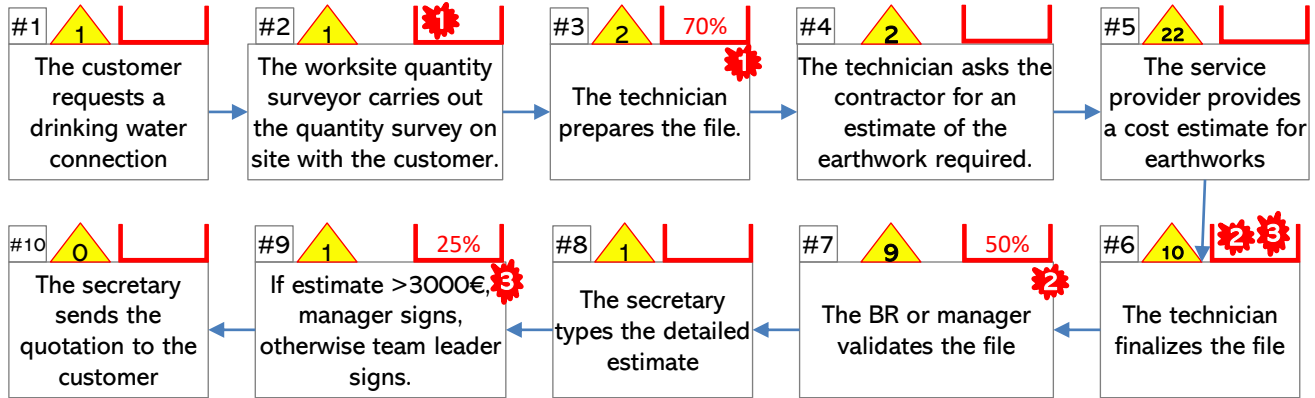Already €5,000 in penalties.

Human impact :
The team works a lot without getting results. Its stock of pending quotations always > 40.
The team is desperate for 2 more people.
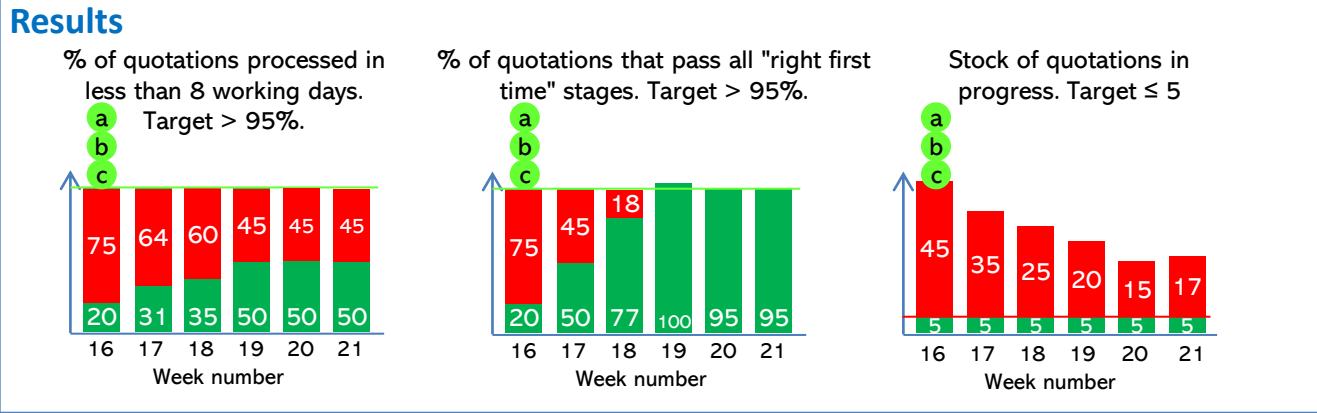
Societal/Environmental impact :
Delayed connections = delayed start-up of construction sites + water theft.

Process or work standard

#1 — 1	#2 — 1 ⚙1	#3 — 2 — 70% ⚙1	#4 — 2	#5 — 22
The customer requests a drinking water connection	The worksite quantity surveyor carries out the quantity survey on site with the customer.	The technician prepares the file.	The technician asks the contractor for an estimate of the earthwork required.	The service provider provides a cost estimate for earthworks

#10 — 0	#9 — 1 — 25% ⚙3	#8 — 1	#7 — 9 — 50%	#6 — 10 ⚙2 ⚙3 ⚙2
The secretary sends the quotation to the customer	If estimate >3000€, manager signs, otherwise team leader signs.	The secretary types the detailed estimate	The BR or manager validates the file	The technician finalizes the file

Actions

Actions #	Action to be tested	Expected result	Who	Start/end	OK/KO
1 / a	Creation of a worksite quantity survey report standard, specifying what information is required, how it is to be transcribed and why it is important. Worksite quantity surveyor training	Reduced number of calls to the worksite quantity surveyor to clear up doubts	👤	Week 16	✓
2 / b	Creation of a quotation standard	Elimination of backtracking due to : - Insufficient backfill material - Insufficient asphalt and deactivated concrete materials - Unbilled services - Pricing errors	👥	Week 16	✓
3 / c	Creation of a standard for photographs of premises receiving a new connection: - 4 photos showing the immediate surroundings of the future connection (north, south, east, west). - 2 photos showing at least 10 meters of the roadway on either side of the connection.	Elimination of backtracking due to : - Site safety	👥	Week 16	✓

Causal hypothesis

Causal hypothesis	How can the hypothesis be validated? + Observations		OK/KO?
1 — In step 3, the technician contacts the worksite quantity surveyor to obtain the missing information for one out of every two files.	Observation of the « story" of the last 20 files processed. Position a red bin at its stage +collection quality problems. OK 6 / GPS connection coordinates missing 10 / Absent customer contact phone number 5 / No customer address 1	1.1 The worksite quantity surveyor enters the address instead of the GPS coordinates. 1.2 The worksite quantity surveyor did not validate the contact telephone number for the day scheduled when he made his appointment with the customer. 1.3 The worksite quantity surveyor did not collect the customer's address because he thought the e-mail was sufficient. > No standard of work <	✓
2 — In step 7, the team leader sends the file back to the technician every second time.	Observation of the "life" of the last 20 quotations processed. Position a red bin at its stage +collection quality problems. OK 10 / Insufficient site security 6 / Insufficient filling materials 4 / Insufficient asphalt material 4	The way in which the technician draws up the estimate varies from one case to another. Nor do team leaders and managers have perfectly explicit analysis criteria. > No standard of work <	✓
3 — At step 9, the manager sends the file back to the technician every fourth file.	Observation of the "life" of the last 20 quotations processed. Position a red bin at its stage +collection quality problems. OK 15 / Service not billed 6 / Price error 4	Disagreements about site safety are linked to a lack of knowledge about the characteristics of the location. > The situation of the building sites is not explicit <	✓

Results

% of quotations processed in less than 8 working days. Target > 95%.

Week number	16	17	18	19	20	21
(red, top)	75	64	60	45	45	45
(green, bottom)	20	31	35	50	50	50

% of quotations that pass all "right first time" stages. Target > 95%.

Week number	16	17	18	19	20	21
(red, top)	75	45	18			
(green, bottom)	20	50	77	100	95	95

Stock of quotations in progress. Target ≤ 5

Week number	16	17	18	19	20	21
(red)	45	35	25	20	15	17
(target line)	5	5	5	5	5	5

Acting on our practices / Lessons learned

What we keep:
- Standardization of worksite quantity survey report
- Standardizing the quotation process

What we have gained by solving this problem:
- X2.5 quotations sent to customers in less than 8 days
- X5 quotation right first time
- 50 hours freed a year for the worksite quantity surveyor. He has added an hour's sport a week to his schedule.
- 117 hours of rework per year for the technician. The technician comes home 40 minutes early every evening.
- 17 hours of rework per year for the manager. He took the opportunity to set himself one more PDCA per quarter!