HOW TRIZ HELPS TO MAKE CREATIVE THINKING AND BUSINESS WITH NEW BIGDATA TECHNOLOGY

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How and why mix TRIZ and business innovation?

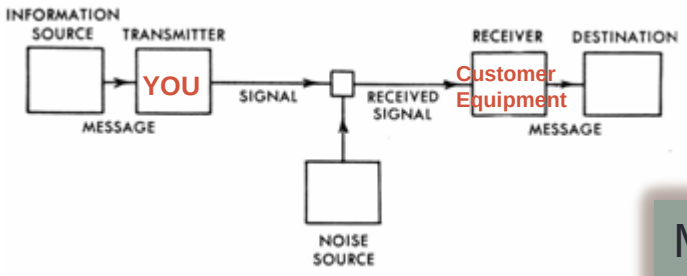
From Shannon & Weaver USP to LOVEBRAND

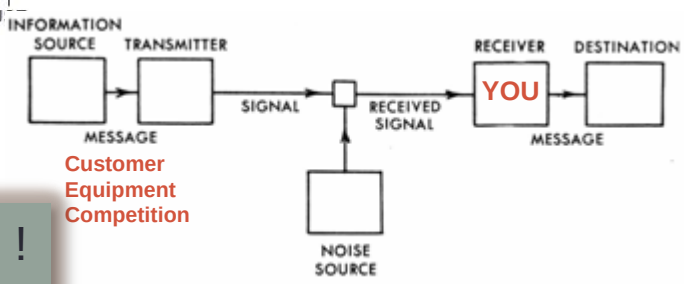
System INNOVATION TO BETTER INTERACT WITH CUSTOMER with CX
(Consistent value proposition)

System INNOVATION TO BETTER UNDERSTAND CUSTOMER LOYALTY with BIGDATA
(Insight Approach & Creative Business Idea)

MORE INTERACTION !
NEW INTERACTION !
FAST INTERACTION !

MORE DATA !
NEW DATA !
FAST DATA !

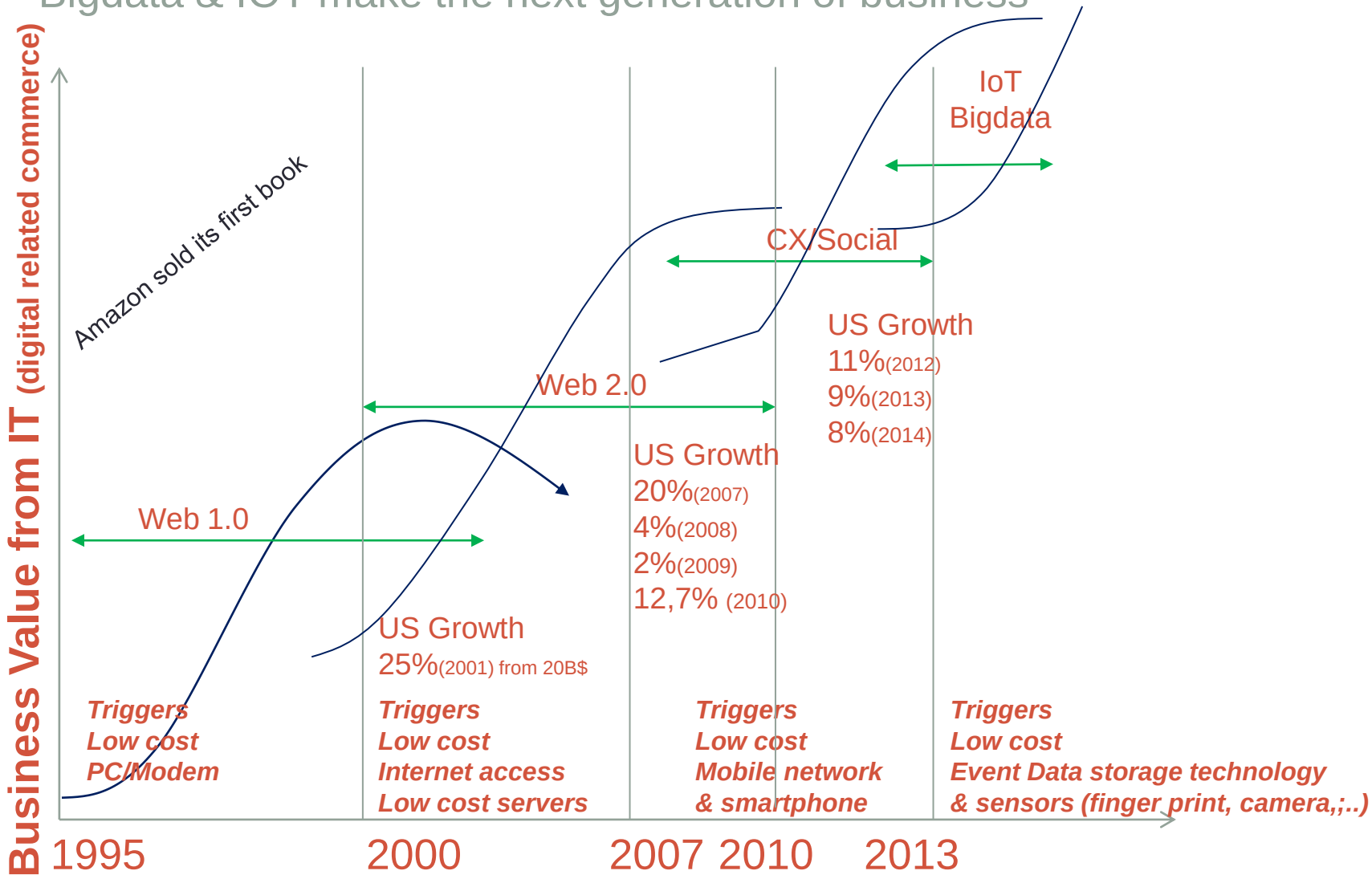




MORE BUSINESS !
NEW BUSINESS !
FAST BUSINESS !

Why is it now the right time to mix TRIZ, Bigdata and CX?

Bigdata & IOT make the next generation of business



Remark : Web to store (Google/Yahoo/… ads adds 1.46% growth/y on 1.55% of y/y store sales growth since 2008
Source :http://www.wwwmetrics.com/shopping.htm

Why making innovation with Bigdata & CX?

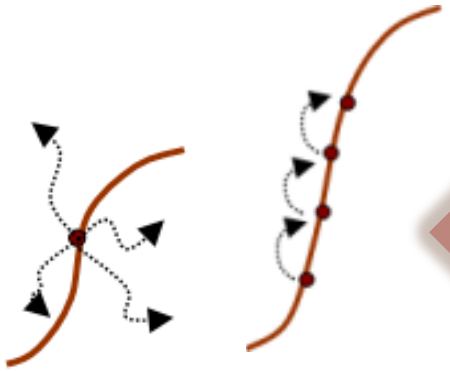
Bigdata and Customer eXperience are not only IT innovations for IT.

Those two technologies are frameworks oriented to innovation for creating new ways of communication and new management type for the deluge of information, **Bigdata and CX are innovation platforms**!

Bigdata and CX are **not prejudicing your usage, your business and your products & services innovation** as industrials experts in your domain. These are helping you to **compose your own innovations and business differentiators !**

Focus on the right innovation

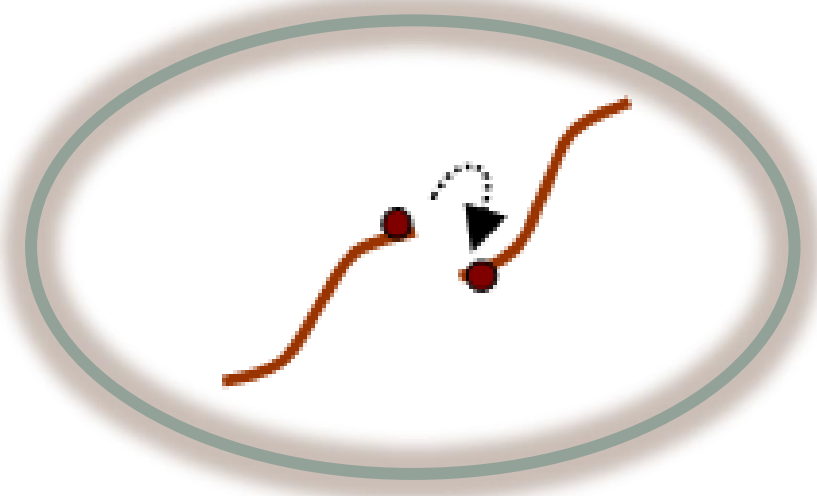
Look for the best efficient transformation for more business



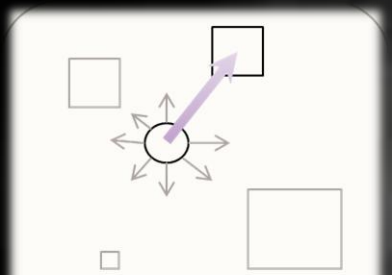
Stop lost of time on:

- looking for
  genius idea from inspired man
- **OR** basic evolution solution

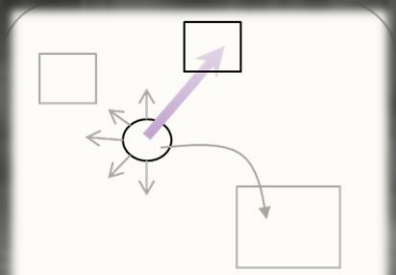
Use a robust creativity process to jump on the next S-curve



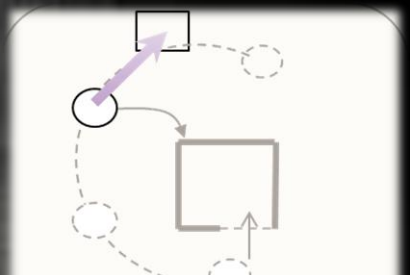
5 Steps to introduce Bigdata & CX in Business Innovation



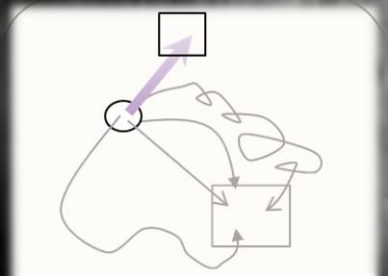
1 Observe and detect business opportunities



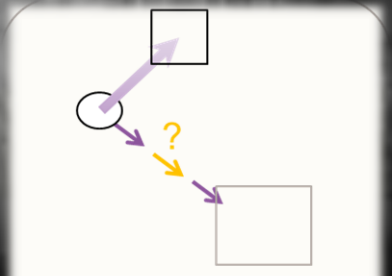
2 Target high value 4 your company and customer



3 Change the analysis point of view



4 Build multiple solutions concepts for your goals



5 Speed up the selection and evaluation of ideas

Instead focusing on customer needs
Select a specific CX « Customer eXperience» Journey

Step 1 : **Observe & Map** the Customer/Business Journey for Business opportunities

Step 2 : **Focus** on missed High Value from pains and unresolved lean wishes

Step 3 : **Change** your point of view

Model and identify the pains using TRIZ Su-Fields

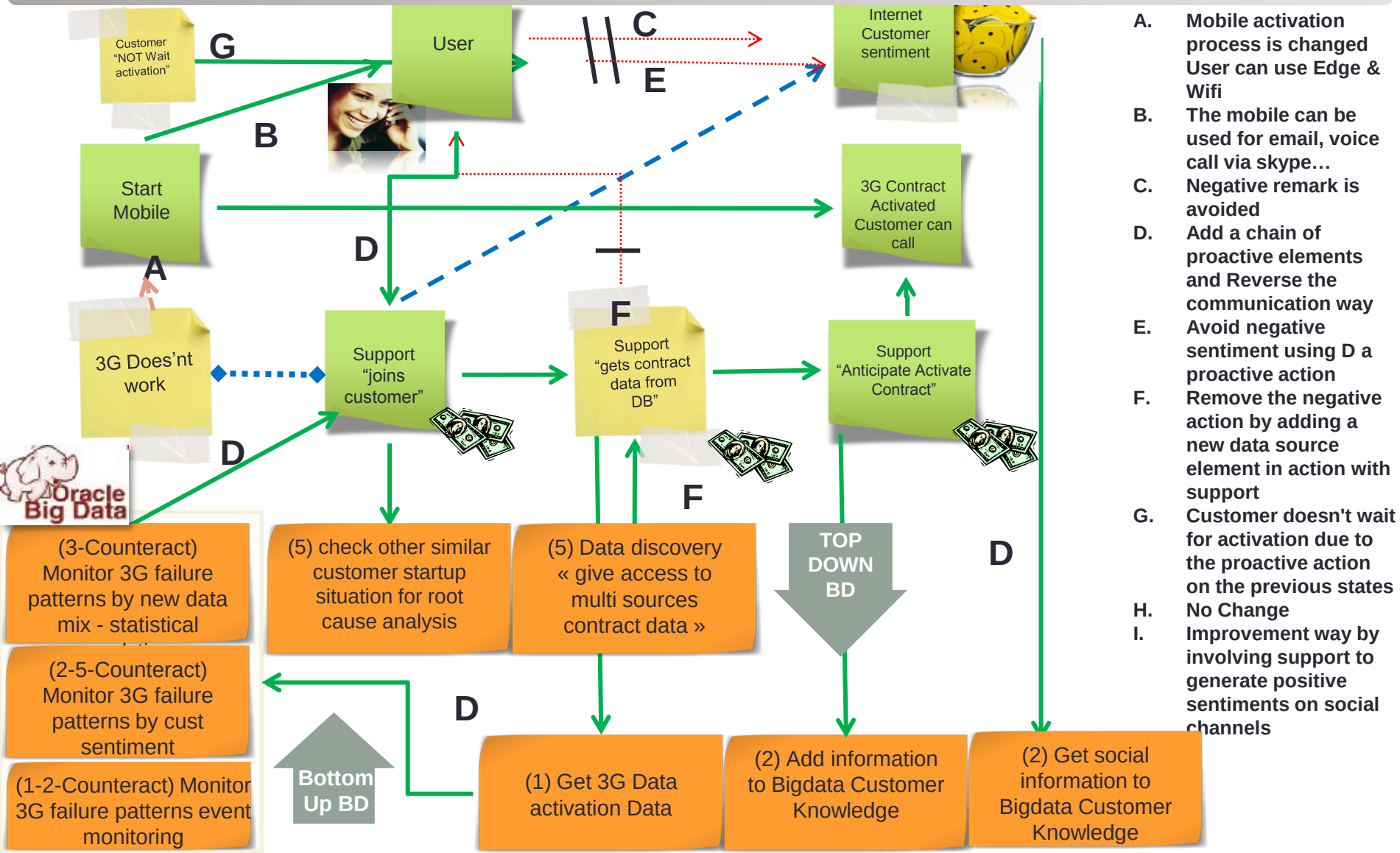
Step 3 : **Change** your point of view & **Model** the pains

Symbol	Kind of action	Effect
A → B	Effective action	This is the required behavior.
A ⇢ B	Insufficient action	The effect of the function is not enough to reach the desired level. This behavior can be improved.
A → B	Excessive action	The function performs too much action over the structure. This behavior can be improved.
A ⇝ B	Harmful action	This is an undesired behavior.
A ⇢ B	Missing action	A function is needed, but there is no behavior that carries it out.

A. Stop the mobile FPU usage
B. Show that 3G does'nt work
C. Create a negative remark on Twitter
D. Call the support with no immediate answer
E. Create a negative remark on Twitter
F. Request contract information
G. Customer waits for activation

Vanish the harmful (red) relationships, and create new business opportunities Using TRIZ Standards

Step 4 : **Design** new Business alternatives and **remove** pains



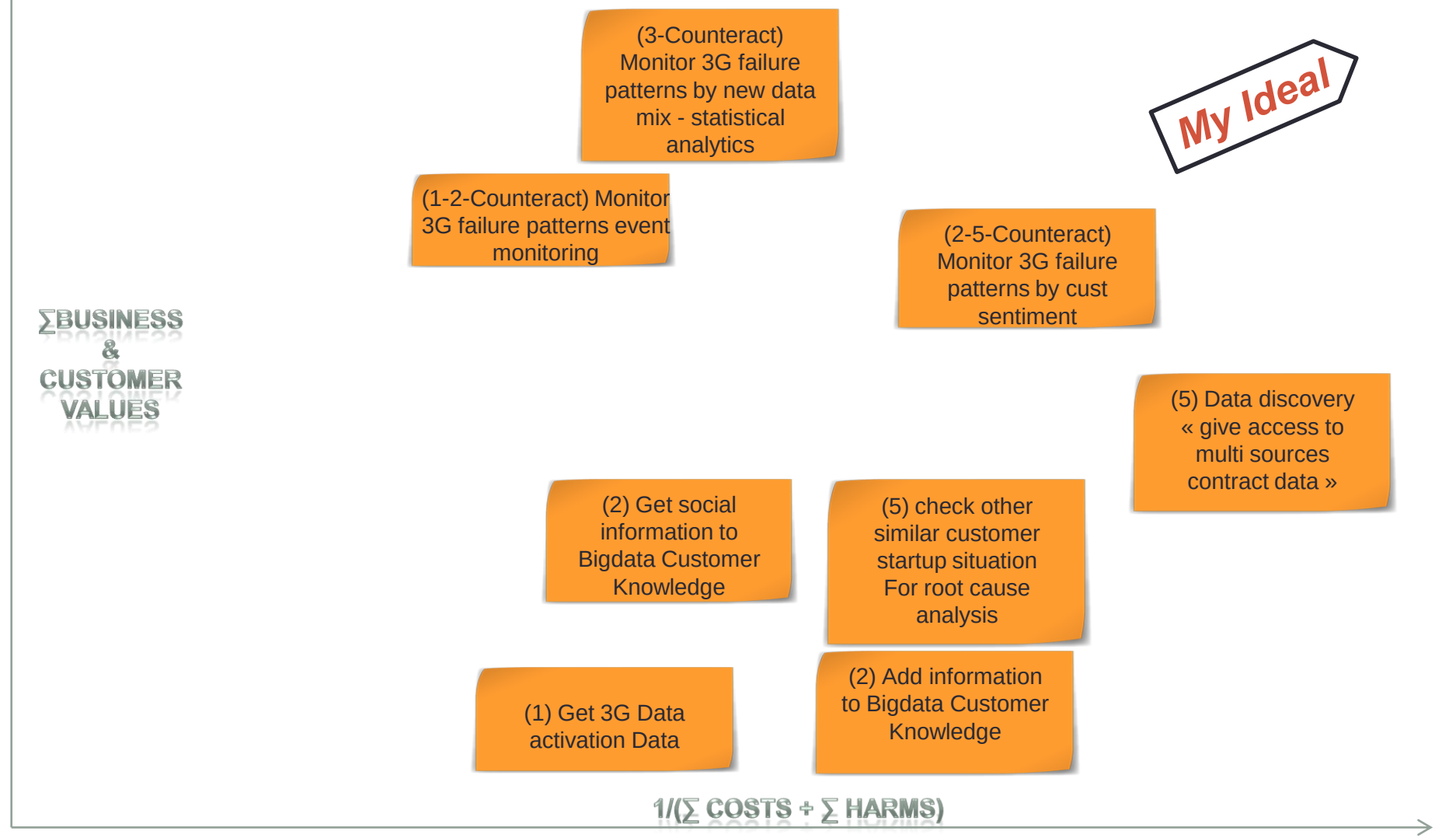
A. **Mobile activation process is changed User can use Edge & Wifi**
B. **The mobile can be used for email, voice call via skype…**
C. **Negative remark is avoided**
D. **Add a chain of proactive elements and Reverse the communication way**
E. **Avoid negative sentiment using D a proactive action**
F. **Remove the negative action by adding a new data source element in action with support**
G. **Customer doesn't wait for activation due to the proactive action on the previous states**
H. **No Change**
I. **Improvement way by involving support to generate positive sentiments on social channels**

Bigdata and/or CX action plan

***Prioritize your Ideas** by IDEAL VISION*

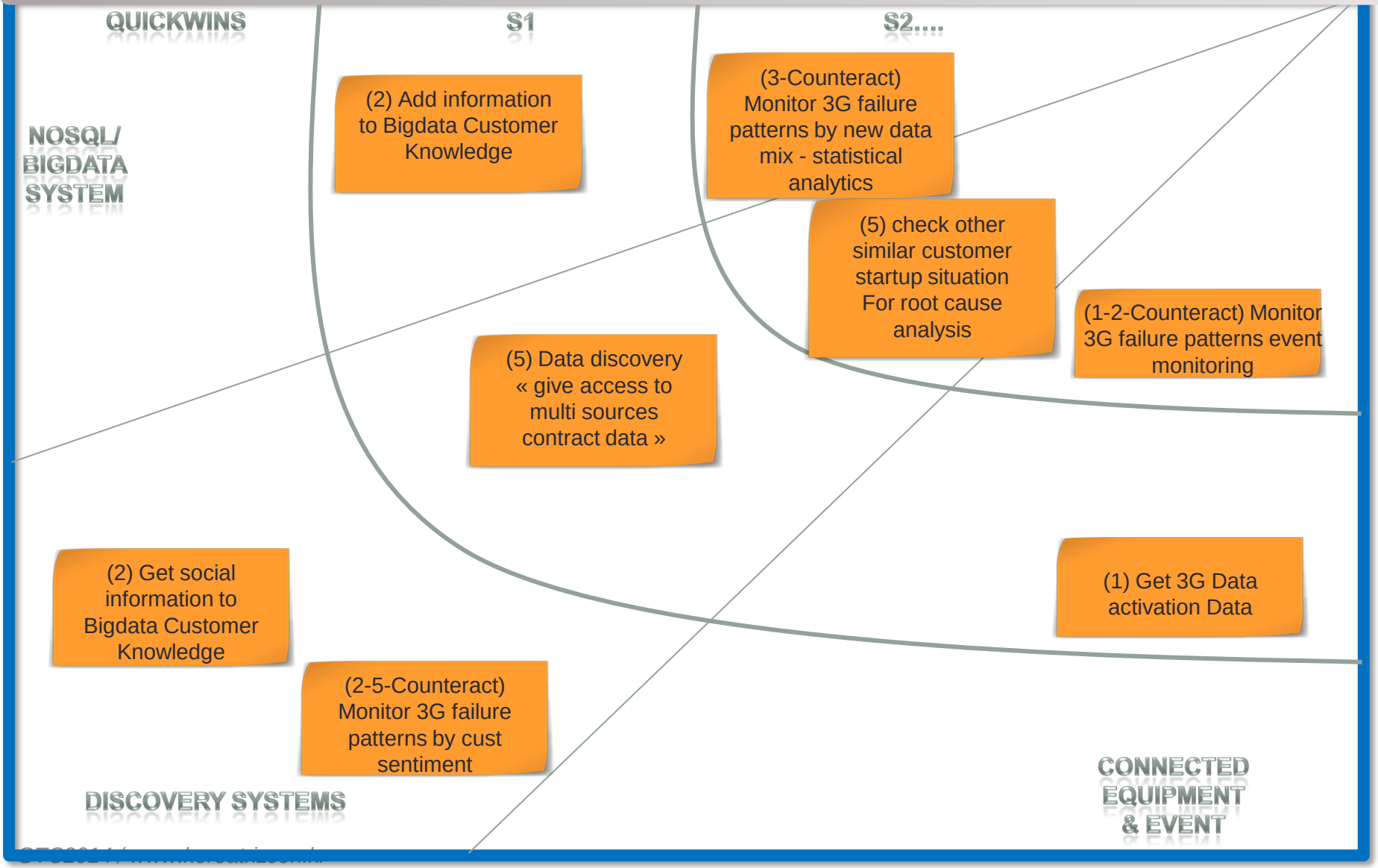
Step 5 : **Select** the right idea **to go fast**

Ideality = ∑ Benefits / (∑ Costs + ∑ Harm)



Action plan : *Align your innovation horizons roadmap with your company compelling events*

Step 6 : **Plan your Future**



The facilitator guide

- Simple 9 propositions (cards) and 12 innovative principles for innovating in your customer relationships using bigdata and CX (for beginner)

- 126 ways and 64 innovative principles to change the manner to understand and interact with customer and ecosystem with bigdata & CX

SAMPLE of reference cards of CX & Bigdata effects

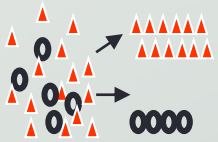
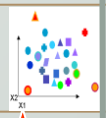
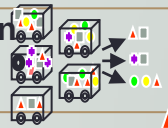
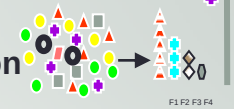
A CX Transmitters & receivers Effects

- **Effects 4 IT People (**Structured, Semi-Structured, Unstructured, User generated, System generated, Interactive ‘pipes’, Enterprise Data)
- **Effects 4 Business people (Sound/xD, Apps, Text, Video/3D , Images/3D , Graph, Vibration, Smelling, Taste, Touch, Object, GPS Coordinates, temperature, Electric energy, motion speed, gyroscope, fingerprint, 3D scan, light state, …)**
- **Effects communication characteristics (Push, Pull, Interactive, Transactional , Synchronous, Asynchronous, Amplitude change, Frequency, Random, …)**

B CX Transmitters & receivers Channels

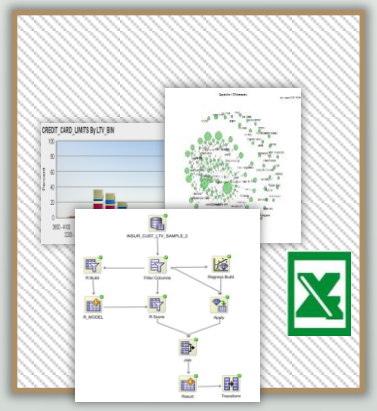
SAMPLE of reference cards of CX & Bigdata effects

E1 Bigdata Transmitters & receivers Adv Effects (Part 3)

Problem	Algorithms
Classification 	Logistic Regression (GLM) Decision Trees Naïve Bayes Support Vector Machine
Regression 	Multiple Regression (GLM) Support Vector Machine
Anomaly Detection 	One Class SVM
Attribute Importance 	Minimum Description Length (MDL)
Association Rules 	Apriori
Clustering 	Hierarchical K-Means Hierarchical O-Cluster
Feature Extraction 	Nonnegative Matrix Factorization

E2 Bigdata Transmitters & receivers Adv Effects (Part 4)

Applicability
Classical statistical technique Popular / Rules / transparency Embedded app Wide / narrow data / text
Classical statistical technique Wide / narrow data / text
Lack examples of target field
Attribute reduction Identify useful data Reduce data noise
Market basket analysis Link analysis
Product grouping Text mining Gene and protein analysis
Text analysis Feature reduction



Advanced Analytics

Pattern detection, Root Cause Analysis, Co-relations and Predictions,

SAMPLE of TRIZ Principles cards

01 Develop asymmetry

Asymmetric purchasing & payment
Using Google as a search engine for you website

-Asymmetric analysis using sentiment analysis on social cloud and quality feedback with sentiment from claims in data discovery system

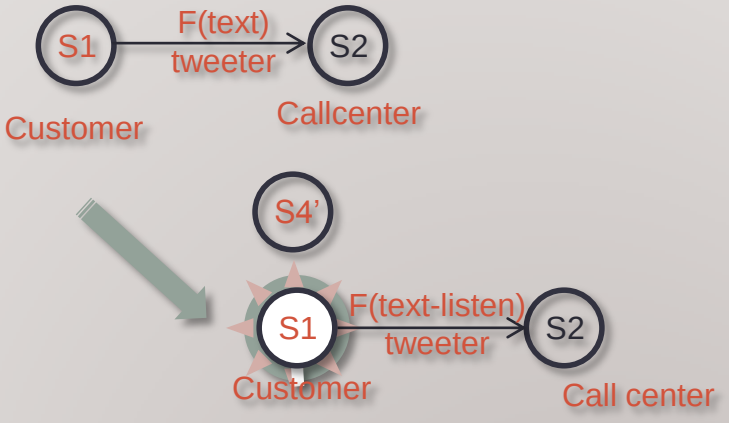
02 The other way round

You are paying your customer to get content.
You are searching competition products for the customer
Start to push parts before product
Sell to end customer instead retailer

-Request to suppliers/partner to analyze your data from equipments (under contract or NDA), see energy saving offers. Using data discovery tools, or statistical tools (R).

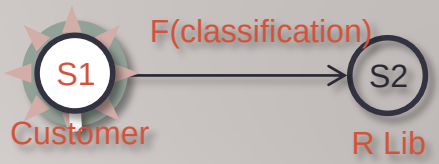
SAMPLE of TRIZ Standards cards

07 Measure the « magnetic » aspect of the S1

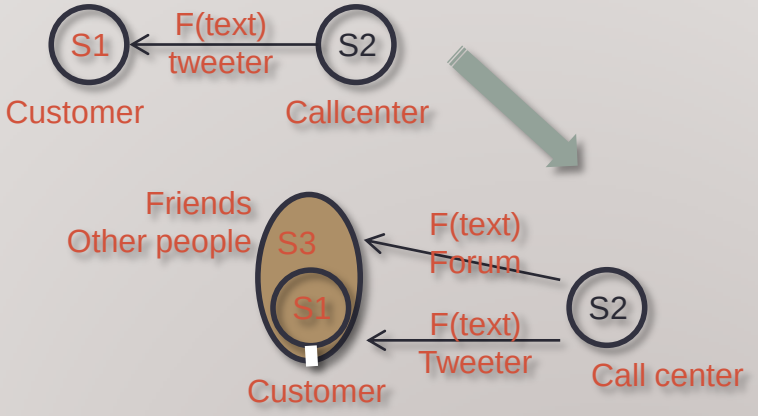


- get information on how many face book likes S1 have regarding his remarks on your products

analyze the clustering, anomaly detection, classification of likes or friends networks)



08 Use multiple fields to measure an extended S1

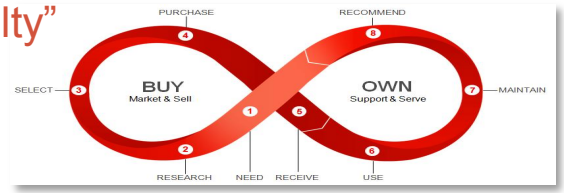


-cross customer feedback with the feedback from a community

- analyze the clustering, anomaly detection, classification, predictive segmentation of customer feedback mixed with the feedback from a community

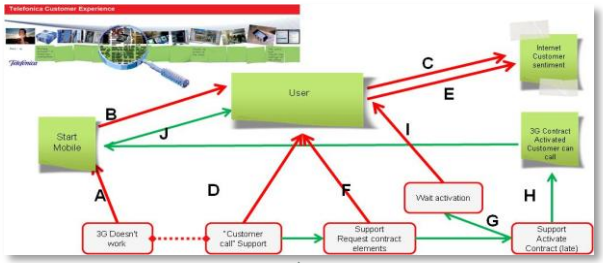
The whole innovation process

1 Focus on the specific domain “eg. Customer Loyalty”

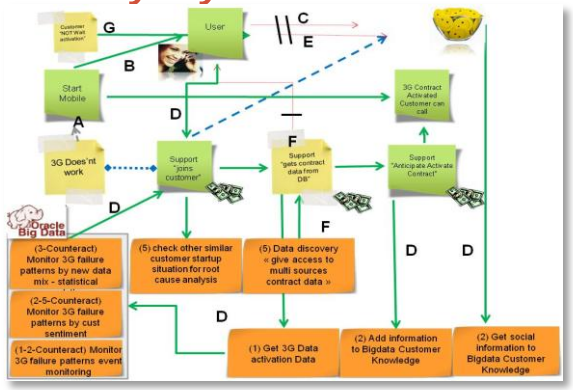


2 Understand the customer Behavior

3 Construct the model of problem



4 Model solution concept & classify by IRF



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6 From solution concepts to reality