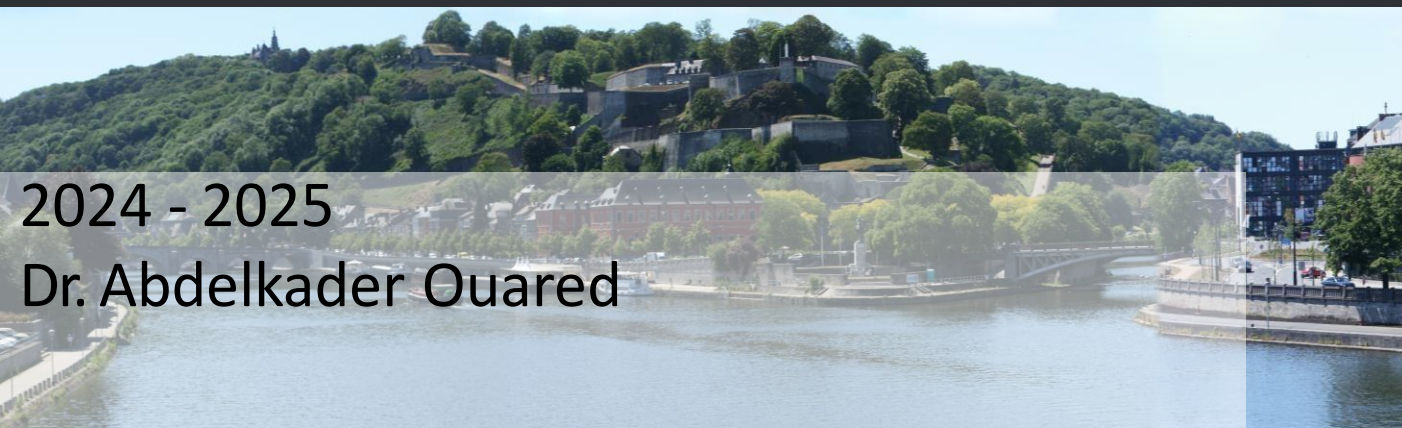


Systeme Innovant de Traçabilité et de Confiance Basé sur la Technologie Blockchain

Brainstorming



2024 - 2025
Dr. Abdelkader Ouared



Structure of the course



Brainstorming Session

- Prerequisite: groups of 4-5 students via Webcampus formed
- Guidelines about:
 - How to structure your Blockchain app project using the Business Model Canvas ?
 - How to Adopt a Traceability and Trust Perspective?
 - How to brainstorm for an innovative Blockchain app idea ?
 - Which tools to exploit in order to develop your project ?
 - How to pitch your idea?
- You receive feedback and coaching about your preliminary ideas

STRUCTURING



Business Model Canvas ... again







The Business Model Canvas

Designed for:

Designed by:

Date:

Version:












| | | | | |
|--|---|--|---|---|
| Key Partners  <p>Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <p>REASONS FOR EXISTENCE Optimization and economy Reduction of risk and uncertainty Acquisition of particular resources and activities</p> | Key Activities  <p>What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <p>KEY RESOURCES Production Problem Solving Platform/Network</p> | Value Propositions  <p>What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <p>CHANNELS/RESOURCES Networks Performance Customization "Testing the fit/size" Design Brand/Status Price Cost Reduction Risk Reduction Accessibility Convenience/Usability</p> | Customer Relationships  <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p> <p>EXAMPLES Phone companies Dedicated Personal Assistants Self Service Automated Services Communities Co-creation</p> | Customer Segments  <p>For whom are we creating value? Who are our most important customers?</p> <p>Mass Market Niche Market Segmented Diversified Multi-sided platform</p> |
| Key Resources  <p>What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <p>TYPES OF RESOURCES Physical Intellectual (brand patents, copyrights, data) Human Financial</p> | | Channels  <p>Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost efficient? How are we integrating them with customer routines?</p> <p>CHANNEL PHASES 1. Awareness 2. Interest 3. Evaluation 4. Purchase 5. Delivery 6. After sales How do we make awareness about our company's products and services? How do we help customers evaluate our company's Value Proposition? How do we give customers to purchase specific products and services? How do we deliver a Value Proposition to customers? How do we provide post-purchase customer support?</p> | | |
| Cost Structure  <p>What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?</p> <p>IN YOUR BUSINESS MODEL Cost driver: dependent cost structure, low price retail proposition, maximum automation, extensive outsourcing Value driver: focused on value integration, premium value proposition</p> <p>SAMPLE CHANNELS/RESOURCES Fixed Costs (salaries, rent, utilities) Variable costs Economies of scale Economies of scope</p> | | Revenue Streams  <p>For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p> <p>TYPES Asset sale Usage fee Subscription fees Licensing/leasing/leasing Licensing Advertising fees Advertising</p> <p>FIXED PRICES List Price Product feature dependent Customer segment dependent Volume dependent</p> <p>REVENUE PRICES Registration (one-time) Hourly charge Near time market</p> | | |



DESIGNED BY: Business Model Foundry AG
The makers of Business Model Generation and Strategyzer

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Where to start ? e.g. Open Data Canvas

| | | | | |
|--|---|---|---|---|
|  Data Providers 2 -government -private companies -organizations |  Activities -data collection -data maintain -data clean -data analyze |  Value proposition -Intended public value -Ways of data use 3 |  Channels -online websites -data lakes APIs -dedicated apps |  Partners stakeholders which help to process and improve data |
|  Infomediary Individual or organizations who extract, aggregate, and transform data |  Resources -IT infrastructure -Technologies -Data scientist | |  Costs Costs or efforts supporting the activities of the data re-use process |  Data users 1 -Individuals -groups -one time or recurring use |
|  Private benefits - profits - non-profit benefits | |  Public values Transparency, accountability, efficiency, decision-making, participation ... | | |

1) Blockchain app: Requirements

- Ask yourself who are the users of the solution you are developing?
 - Who are they?
 - What are their roles?
 - What are their goals?
- Identified problems, Identified actors, Blockchain-based solution (traceability, characteristics, tools, architecture, advantages)

2) Applications Domain

CATALOGUE TRIÉ PAR THÈME

Thème

| | |
|--|----|
| Aménagement du territoire, Urbanisme, Bâtiments, Equipements, Logement | 49 |
| Population, Statistiques | 43 |
| Administration, Gouvernement, Finances publiques, Citoyenneté | 20 |
| Transports, Déplacements | 19 |
| Culture, Patrimoine | 13 |
| Environnement | 10 |
| Santé | 8 |
| Sport, Loisirs | 8 |
| Energie | 5 |
| Economie, Business, PME, Développement économique, Emploi | 4 |
| Closed Data, Accès restreint | 3 |
| Education, Formation, Recherche, Enseignement | 2 |
| > <i>Moins</i> | |

3) Value Propositions of the Mobile app



Example: Milk Traceability Using Blockchain Technology



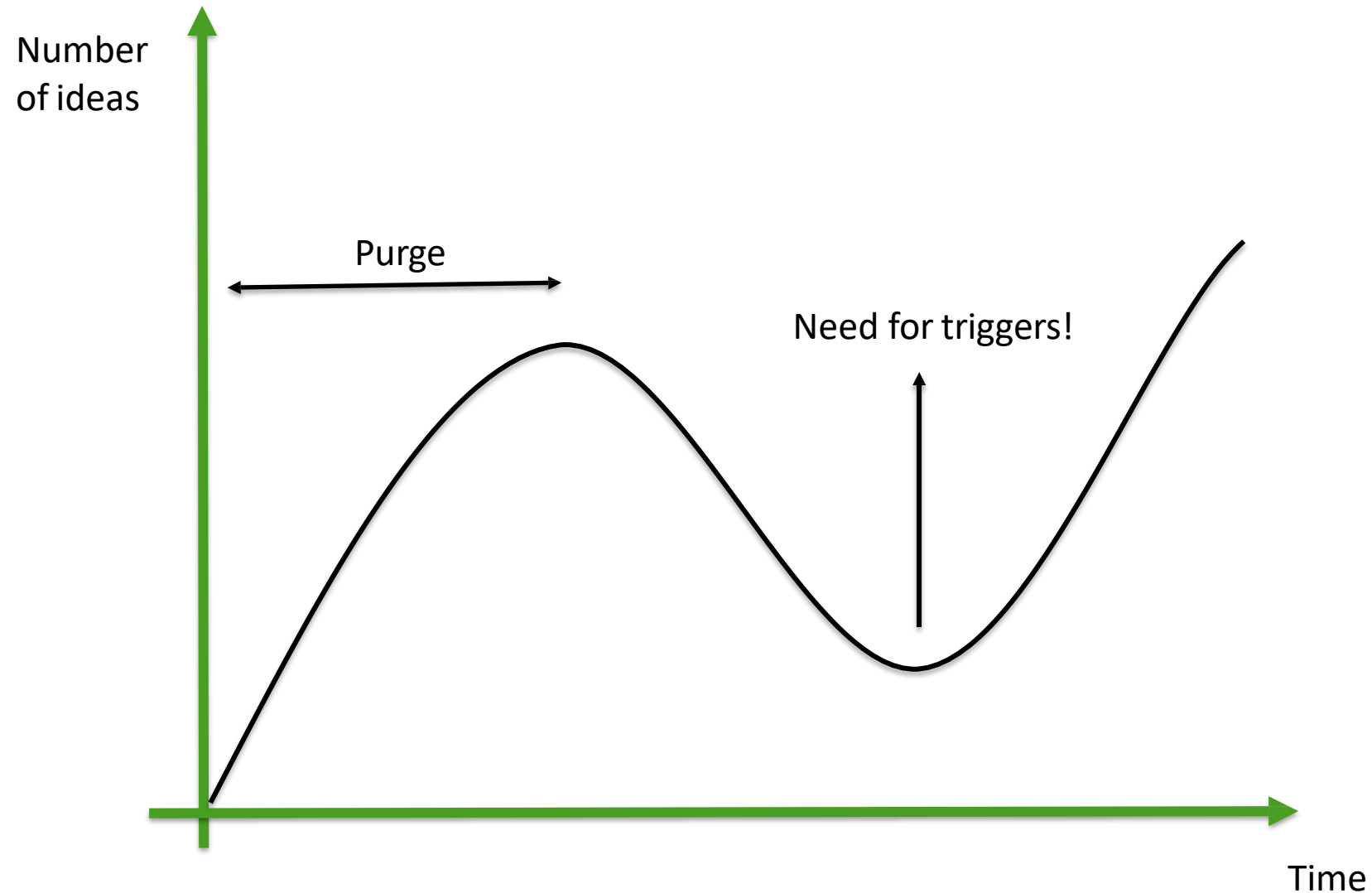
BRAINSTORMING



Brainstorming principles

- Go for quantity
- Withhold criticism (negative or positive)
- Welcome wild ideas
- Rebound, combine and improve ideas

Brainstorming takes time!



Trigger Cards and What-ifs

- Trigger Cards



- Online What-Ifs
 - <https://whtifs.com/>

Trigger cards

- **Innovation Deck** : focuses on new technologies and how they can improve your ideas



Trigger cards

- **Human-Centric Deck** : focuses on people and how your idea can add value for them



Six Hats Techniques



Blue Hat - Process

What conclusions or summaries can we make in moving forward on the issue or problem?



Yellow Hat - Benefits

What are the positive aspects of the current situation, issue or problem?



Green Hat - Creativity

What is the current information on issue or problem?



Black Hat - Cautions

What are the negative aspects of the current situation, issue or problem?



Red Hat - Feelings

How does everyone feel about the current situation, issue or problem?



White Hat - Facts

What is the current information on the issue or problem?

Suggested Process

1. Define problem (e.g. smart city dimension, user need)
2. Think possible solutions
3. Use a trigger (What-ifs, Persona, Hats, ...)
4. Refine/Brainstorm/Discuss

Choosing an idea: Mindmaps

- State the problem
- Brainstorm ideas
- Record ideas
- Sort ideas
- Identify common themes or categories
- Create the diagram based on ideas and categories
- Tool: <https://klaxoon.com/fr/>

Choosing idea: Target of Mark Raison



Choosing idea: Target of Mark Raison

- Red idea: main ingredient of an innovative project
 - Innovative and easy to develop
- Blue idea: enrich the red idea and reinsure stakeholders
 - Established idea and easy to develop
- Yellow idea: Give a challenge and an extra innovative layer
 - Innovative but challenging to develop

TECHNICAL SPECIFICATIONS



Technical Specifications - Blockchain Project: Traceability and Trust

- Modeling traceability transactions in the blockchain.
- Data management (recording information at each stage: production, processing, distribution).
- Cryptography to ensure the integrity and security of information.
- Smart contract features (conditions, trigger events, data storage)
- Validation and deployment on the blockchain.
- How to integrate an Oracle to get external data (weather, commodity prices, etc.) into the blockchain.
- Regulatory compliance (confidentiality).

Some technical specifications

PITCHING



Pitch

- Pitch that you will give to anyone who asks you who you are and what you do.
- Conferences, seminars, coffee, appointments, telephone prospecting,, ...
- Clear, concise and interesting
- Just flip the question back and start a conversation.

Template

Framework de Geoffrey Moore *(Crossing the Chasm, 1991)*

For (target customer)

Who (statement of need or opportunity)

The (product name) **is a** (product category)

That (key benefit, reason to buy)

Unlike (primary competitive alternative)

Our product (statement of primary differentiation)

Template

Exercise!

- Example (coming from a winning idea from Hackathon)

| | Catégories à remplir |
|-----------------------|--|
| Pour | Les agriculteurs en herbe |
| Qui souhaitent | Cultiver des legumes en ville |
| L'application | Potager partagé |
| Est un(e) | Application d'allocation de parcelles |
| Qui offre | À ses utilisateurs un moyen simple de trouver un endroit pour faire pousser ses legumes en ville |
| Par rapport à | Une recherche traditionnelle de potager |
| Nous | Offrons une interface simple d'utilisation qui permet de trouver une parcelle rapidement et facilement |

A few tricks ...

- Generate interest right from the start
 - Asking a question
 - Bouncing back on the news
 - Telling a story that speaks to your audience
- Find a persona
- One idea = One slide
- Think about who your audience is and get their attention!



Intermediary Pitch

- **Prerequisite:** upload the completed BMC
 - Can be upload in a visual manner or via a word file with bullet points
 - Describe how you proceeded to fill them in (brainstorming, start-point, etc.)
- Make an **intermediary pitch** (max 5 minutes) about your data analytics project, using the Canvas as structuring tool
 - Idea aspects
 - Idea generation and selection
 - Needs from the mobile app
 - Users targeted
 - Technical aspects
 - Data Sources selection
 - Foreseen data analytics used (ML, GM, IV,...)
 - Implementation aspects
 - Planning (What can we expect from your end-product?)
 - Envisioned issues (legal, ethical)

Thank you !

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