DESIGN THINKING WORKSHOP

CHALLENGE 1

TEAM MEMBERS

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INTRODUCTION

This will be your group's Mural board during the Design Thinking Workshop. Use it to brainstorm and save your ideas for the final pitch. Please start by adding your name and professional background to the team members section above.

AGENDA

1. Semantic Map
2. Stakeholder Identification Canvas
3. Context Mapping: PESTEL Analysis
4. Persona Empathy Map
5. Ideation
6. The Five Helox Model
7. Idea Canvas

Lalitpur on its way to becoming cycle-friendly city but Kathmandu lags behind

A 22 km-long cycleway is being built in Lalitpur in the second phase but Kathmandu so far failed to carry out its plan to build cycle lanes.

Nivesh here

Only cycle lanes are not enough, stakeholders say

They want Department of Roads to make the Valley's roads more cycle-friendly but it is reluctant to do so.

"The city made the cycle lane but nobody uses it. There is no culture of following the lane discipline."

Statement from the Department of Roads

DAY 1, 15th of Nov 2021

In the Design Thinking process, we divide between the problem and solution thinking. Problem thinking means truly understanding the context, people and interrelations behind your challenge. Today you will start by alligning as a team and understanding and observing your challenge. If ideas should come up, park them for tomorrow's solution thinking!

1 Start by understanding your challenge as a team. Underline one word after the other and share what you understand and associate behind each word of your challenge. Focus on understanding the problem field behind your challenge (not the solutions). Try to collect your thoughts on post-its!

"Mobility Cluster" in the area "Green Urban Development"

"Implementation of Cycle Lanes in Lalitpur (Nepal)"

Lalitpur (Nepal) is situated in the Kathmandu valley. The valley includes 2 more cities – Kathmandu (the capital city), and Bhaktapur, and has total population of 2.5 million. This represents 9.32% of entire population of country.

Road transport dominates transport infrastructure in Nepal accounting for over 90% of the movement of passengers and goods (ADB, 2013). Buses are one of the main modes of public transportation in the valley, followed by micro-bus, vans and 3-wheelers (tempos).

Air pollution is the leading cause of death in the Kathmandu valley, including pollution due to fossil-fuel run transport. To improve the air quality, the Nepal government plans to cut down the fossil fuel use by the country's transport sector by 50 percent by 2050

In an attempt to make itself an eco-friendly city, the Lalitpur Metropolitan City, the first City to have initiated cycle lanes, inaugurated in 2019, the construction of a 4.7km cycle lane from Kupondole to Mangal bazar. The city of Lalitpur wants to transform its ancient and historic centre for pedestrians as part of the municipality's transport master plan. The project envisions connecting Lalitpur's open spaces, river corridors, ancient heritage sites and forgotten trails on the southern rim of Kathmandu Valley with each other.

The Lalitpur Mayor, Chiribabu Maharjan, stated that they need to implement the inverted pyramid mobility principle, which first prioritises pedestrians and bicycles followed by public and cargo transport and then the private vehicles.

Even though the cycle lanes and cycle-friendly laws had received positive coverage, the implementation of the project faces challenges. Bikers have observed specific problems such as:

- only marking cycle lanes in the inner roads where even two vehicles can't pass properly and therefore the road section can't accommodate cyclists and motorists at the same time.
- cars and buses regularly trample on the area prioritised for bicycles
- cyclists' safety

Lack of good practices

Paradigm shift

Population growth

1.Challenge on planning and make transport infrastructure to people oriented rather than car oriented
2. traffic regulation and enforcement

Challenge to change the dominant paradigm in politics: cars and fossil based approach

Politics

Challenge to improve good public transport and alternatives of mobility (e.g. cycling)

Challenge to change mindsets from private car use to cycling opportunities

People

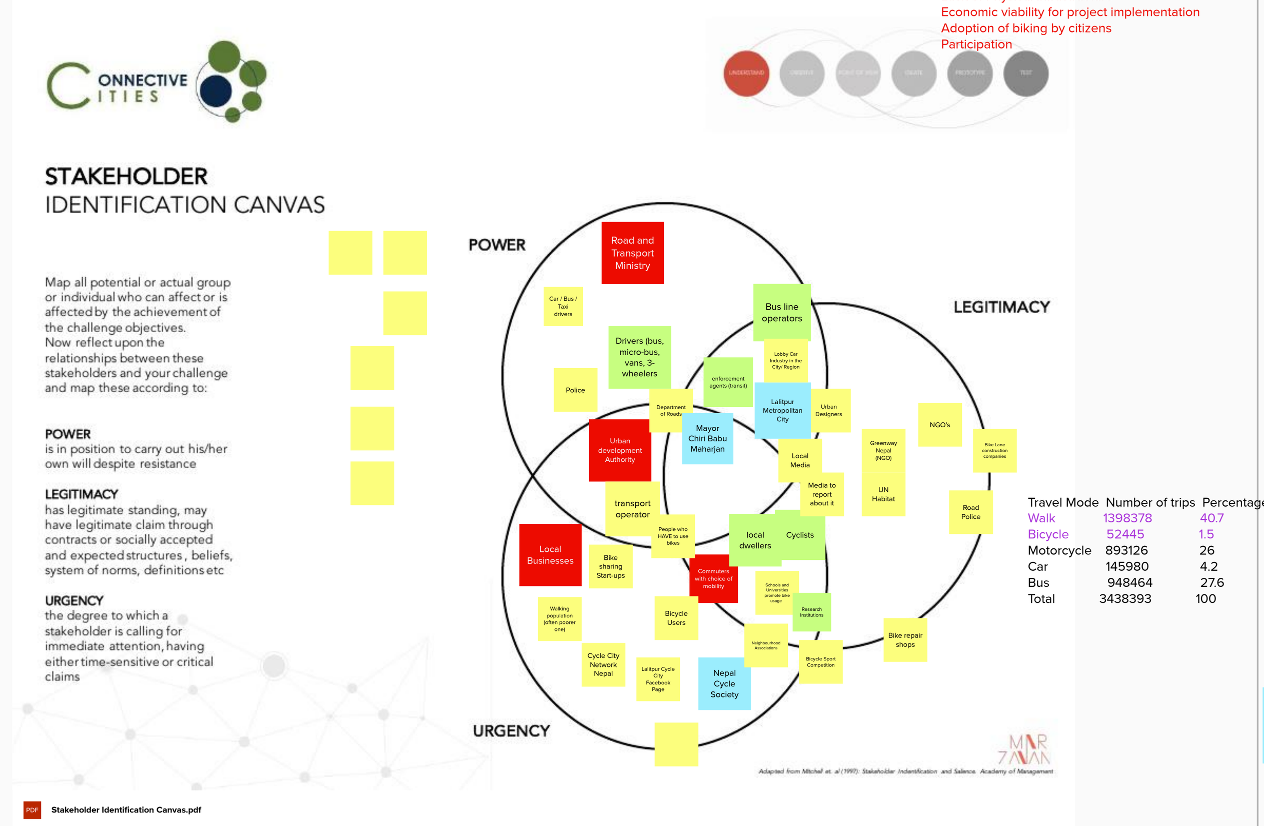
Once you have cycle lanes, how to respect them and to assure security in an environment that is still driven by the car paradigm

One thing is too have the project but how does it really get respected and also increased?

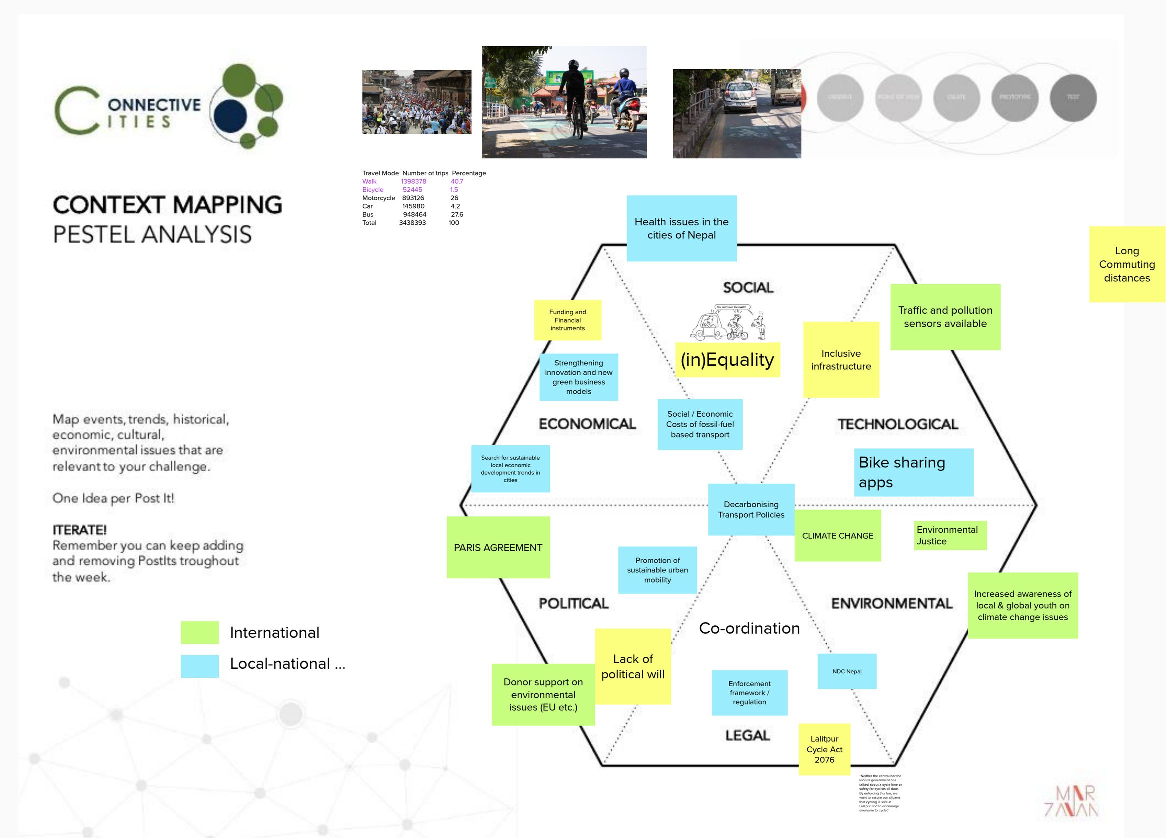
It's necessary to adapt Concepts (bike lanes) to local mobility dynamics

2 Identify the people affected by your challenge. Focus on understanding their needs, wishes and pain points first. As a second step display their interrelations.

Shifting focus from Private to shared mobility
Carbon neutral Urban transformations
Lack of Physical infrastructure
Economic viability for project implementation
Adoption of biking by citizens
Participation



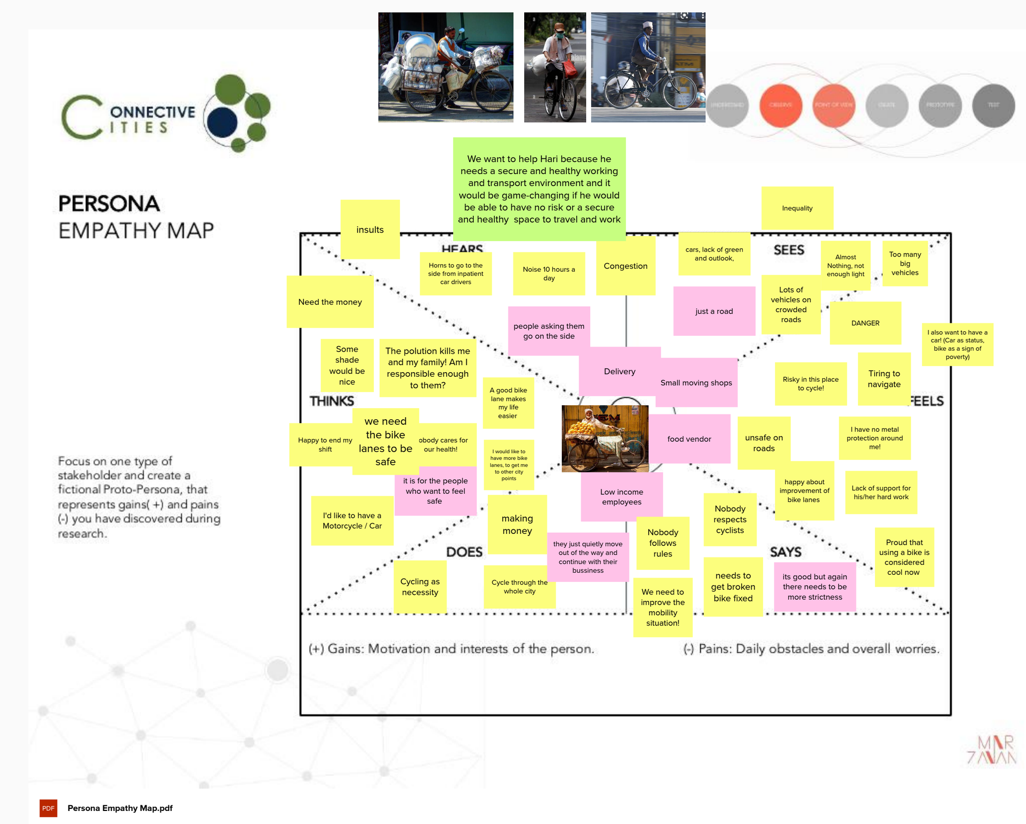
3 Context mapping allows you to understand the wider context of your challenge by looking at it through a political, economical, social, technological, environmental and legal angles. Try to collect as many ideas here as possible.



DAY 2, 16th of Nov 2021

Today's focus will be about the solution thinking. Ideation and prototyping solution ideas will only focus on your user's perspective, the so-called point of view (POV). Be conscious about creating a creative and solution-driven mind-set within the team and learn to switch perspectives.

4 Try to walk in your user's shoes! Create empathy for your users by chosing one particular point of view on your challenge. The goal here is to gain empathy and formulate a point of view: "We want to help (Persona) because he/ she needs (need/wish/pain point) and it would be game-changing if (pain relief)."



5 Defer judgement and encourage wild ideas in the team now. As a first step, formulate how-might-we-questions that are focussing on smaller bits of your user's challenge. Start with a silent brainstorm to get all existing ideas out of your system. Continue with a role brainstorm (e.g. choose your super hero as creative role) to brainstorm wild ideas. Go for quantity first and evaluate the quality at the end of ideation. Have fun!

State-ment

We want to help Hari because he needs a secure and healthy working and transport environment and it would be game-changing if he would be able to have no risk or a secure and healthy space to travel and work

Desireble

Feasable

Route planning trainings

Get powerful stakeholders attention

incentived for cycle riders for keeping the environment clean and friendly

Courses for Professional bikers / riders

Communication

Communication Campaigns

Including information of network that supports cyclers

Bike Repair - Services provided by State

Create a community of cycling dwellers to reflect jointly of what could be done (incl. wilde ideas)

Give visibility to Hari's situation, he is not alone

Document the insults and risk situations Hari has to through every day and write an article about it

Starting initiative of cars outside the city and selling centre

safety helmets

insurance for the cycle riders

Media-Visibility

Create Haris daily cycling as a model for sustainability

CARGO bike sharing

Priority to cycles and pedestrians

Separate Blcycle lanes

Penalty approach: Police introduces high penalties for cars

Safety Insurance

Create a speed limit zone where the transport and work area close to traffic is promoted

encouragement for other kinds of cycle infrastructure. i.e. cycle stands

cycle maintainenance workshop

Identification of private business models for infrastructure & equipment

Electric bikes for high terrain zones

reflective jackets

No vehicles zone

REGULATIONS

traffic Police on horses :-)

Cheap Bike Sharing service - End to end

Secure bike corridors

Shower spaces for bikers

Parking

Promoting business model case around cycling

SERVICES?

Bike Rental as a Service - Long and Short term Example: Netherlands

Cheaper Bicycles of high quality

Equipment

Storage spaces on bikes

Give incentives to bikers

taxes for (big) cars

Hubs - Places to rest Bathroom

BUILT INFRASTRUCTURE

Integration with public transport

Cycling Infrastructre Ecosystem with Space usage for other businesses + Advertising

Road security training

Safety elements provided by State (Lights . Helmets)

Free bikes for all citisens

prevent second line parking

restrictions to vehicles

public funded delivery/cargo bikes

Interchange hubs

cycle sharing for general public

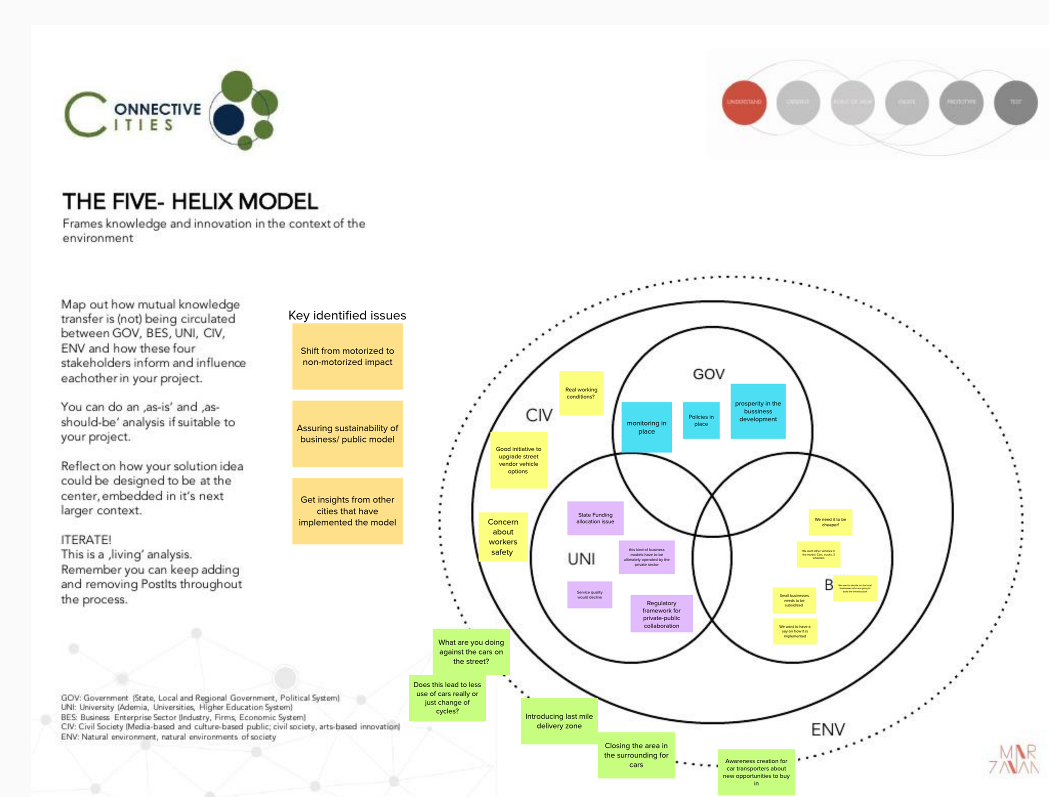
Good quality roads

Shaded corridors

roofs over bike lanes as heat /rain protection

Seperate bike lane from street with a wall

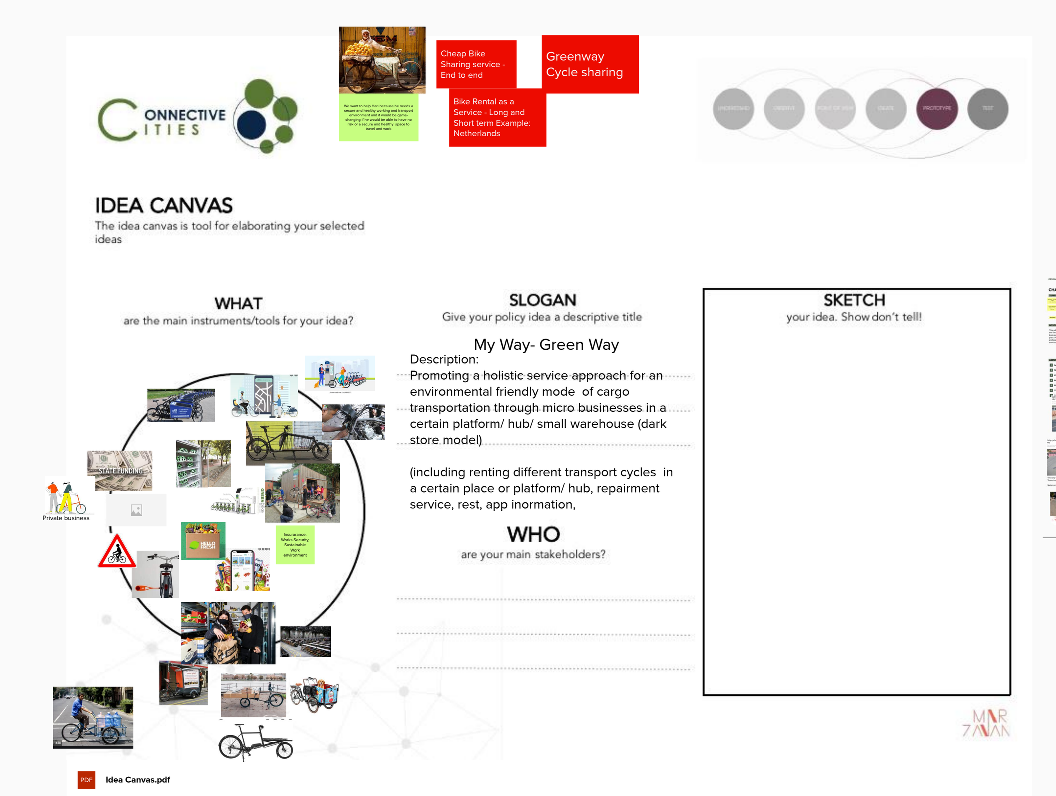
6 Discuss your favorite idea(s) along the stakeholders from the Five-Helix-Model. It can be helpful to make a short role play here, where each team member takes over one perspective to challenge your solution. Iterate your idea and take notes!

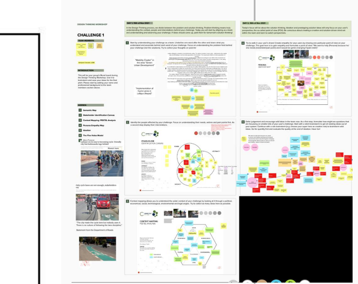


DAY 3, 17th of Nov 2021

Prepare the final pitch of your group's idea and divide roles for presentations. Make your idea and the relevance of your challenge as tangible as possible! Use this board to underline your presentation visually.

7 Use the Idea Canvas to present your final idea. You can use the space under the canvas to prepare other relevant information to visualize your pitch!





PITCH EXAMPLE:

GREENWAY SERVICES

TITLE

Who are you helping?

What is their problem?

How it is addressed currently?

How you will address it more holistica

How much does it cost?

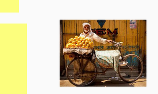
Why you/ your team?

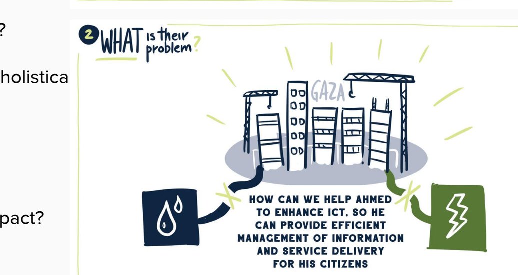
How to assure sustainable impact?

Street vendors

Bike riders

Small businesses



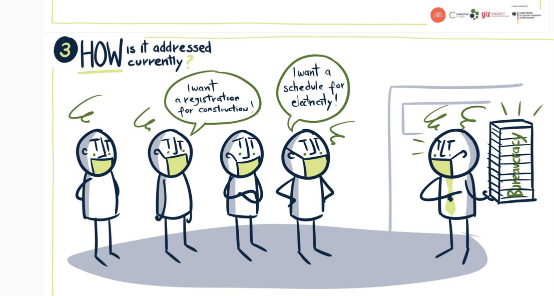


Air Pollution

Dangerous Roads

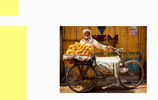
Road Safety (cyclists)

Inadequate infrastructure and Services for Cyclists



non-integrated approach

focusing on motorized-transport (fossil-fuel)



Participation and comprehensive approach

Multi-stakeholder involvement

Private-Public partnership

250.000 - 300.000 euros initial investment

50.000 - 100.000 euros yearly operation costs

Different backgrounds

Get insights from other cities that have implemented the model

Monitoring by University accompanying research

fostering a Shift from motorized to non-motorized transport