



**Our Digital
Future—**

c'est ICI INCLUSION
COLLABORATION
INSPIRATION

**Youth Recommendations for an Inclusive Digital Future:
Data Sharing and (SSI)Self Sovereign Identity**

| Key challenges

Upcoming technologies enable society to use big amounts of data to create a new safe inclusive future, however, the framework still needs to be developed to ensure sharing data in a privacy preserving way.

Our recommendation is focused on sharing data and improving public services in the EU.

Challenges:

DATA SHARING AND PRIVACY

- Data security should be provided
- Engaging stakeholders to share their data
- Ensure data ownership

FRAMEWORK

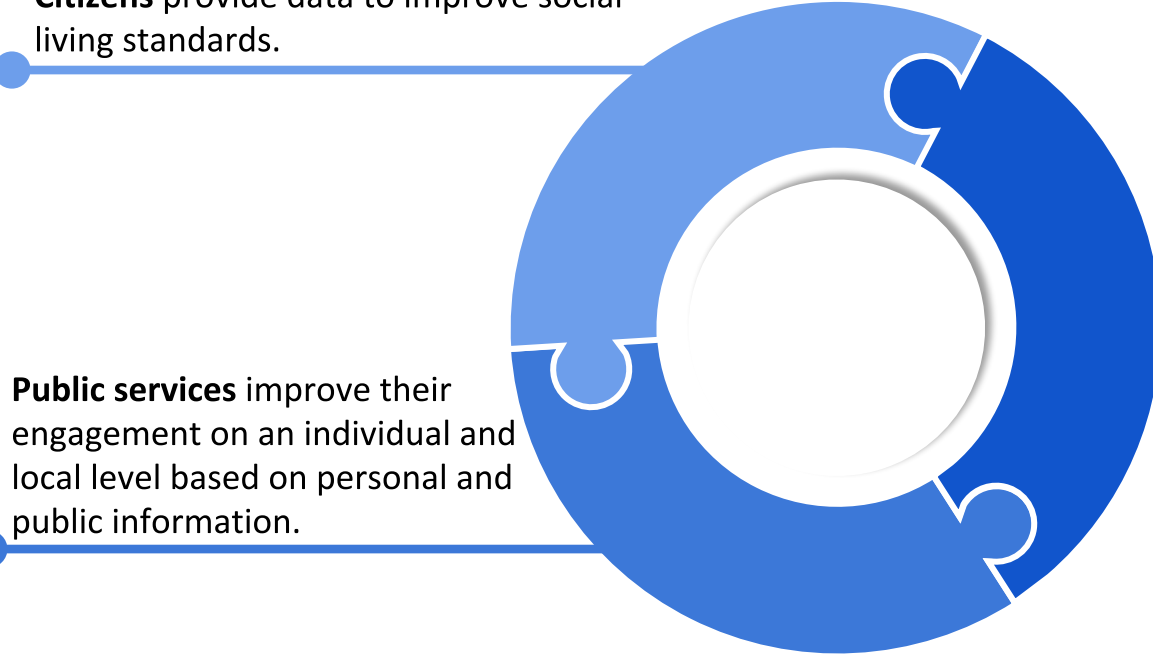
- No stable framework is developed yet.

Why to share data?

Data sharing allows any entity engage data in different data-sharing arrangements with each other. This way, the value resulting from the data can be exploited to the maximum.

Ecosystem of Stakeholders and Beneficiaries

Citizens provide data to improve social living standards.



The government motivates the public in contributing to the inclusive digital future.

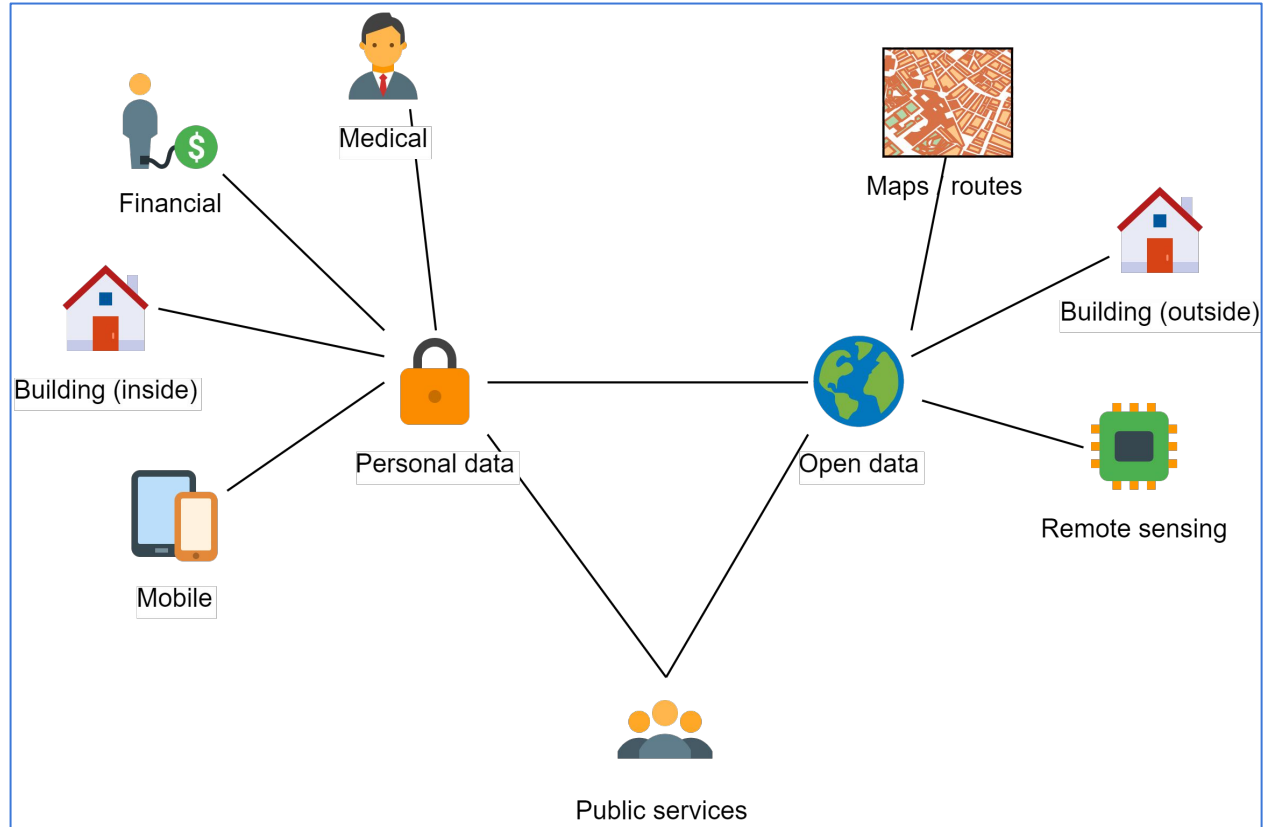
Public services improve their engagement on an individual and local level based on personal and public information.

Data landscape overview

Personal data is related to privacy. Through, digital identity is able to prove that person is the owner of the personal data.

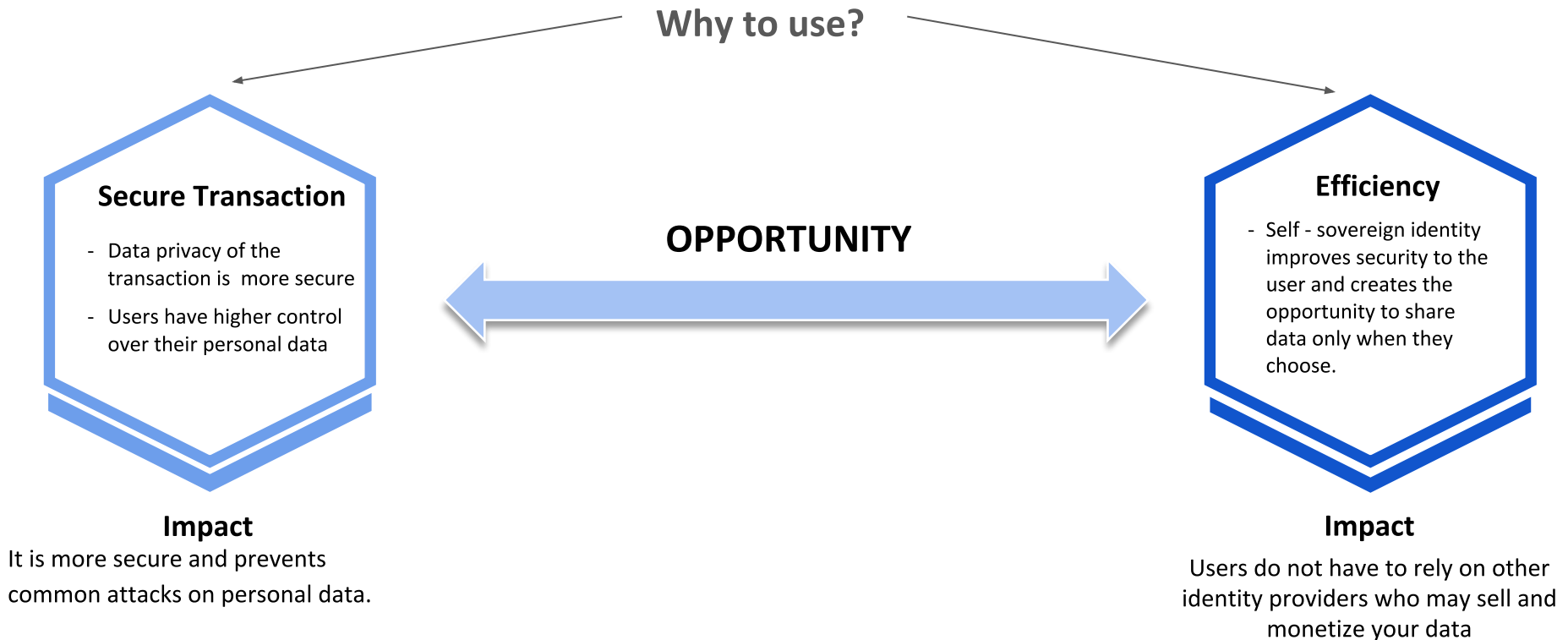
Open data is data publicly accessible to anyone. It usually refers to public infrastructure.

Public services use personal data in combination with open data to personalize and improve their services.



| What is SSI (Self Sovereign Identity) ?

Self-sovereign identity (SSI) is a model for **managing digital identities** in which an **individual** or **business** has sole **ownership** over the ability to control their accounts and personal data.



Requirements for a solution

Transparency

It should be easy to use and understandable for all citizens to ensure digital inclusion.

Identity

Digital identity would be a cornerstone in making sure data is shared with the approval of the owner.



Privacy

The privacy should be preserved to protect citizens and comply to GDPR.

Ownership

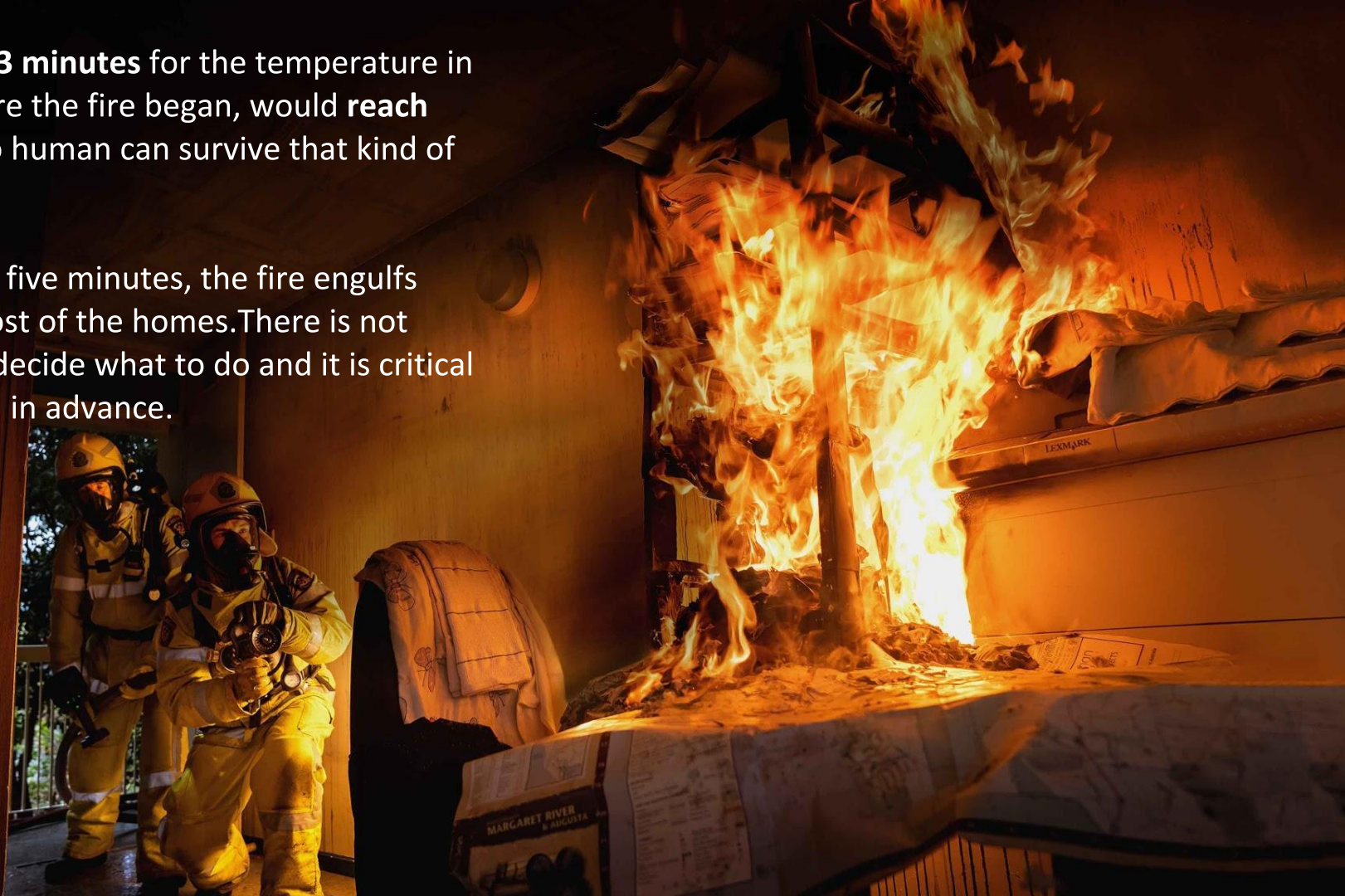
If data is related to a citizen it is personal data. The data should be controlled and owned by that citizen.

Solution requirements

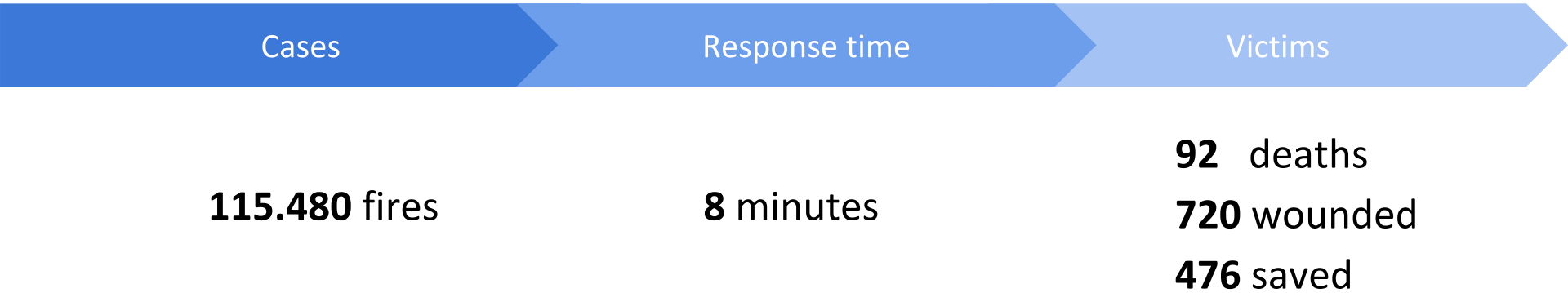
The recommendation should include these requirements and ensure that the data of citizens is protected. To encourage data sharing between citizens and public services.

It takes about **3 minutes** for the temperature in the room where the fire began, would **reach over 260°C**, no human can survive that kind of heat.

After less than five minutes, the fire engulfs completely most of the homes. There is not much time to decide what to do and it is critical to make a plan in advance.



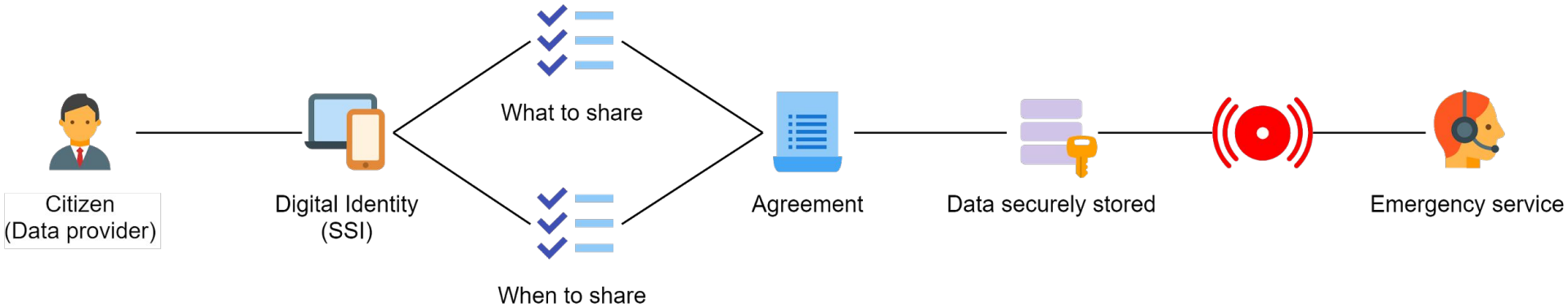
Fire statistics in the Netherlands



Some lives could have been saved if the right information was in place at the right time.

*Numbers are based on Dutch statistics of 2013 and 2019. Provided by the CBS.

Solution flow



1. Citizens are **Data Providers** and they share their data to public services using Digital ID
2. Parties agree on **what data should be shared and when**
3. Citizens' **data are securely stored**
4. Once an emergency occurred, the **Dispatch Centre** would trigger the data
5. **Fire Brigade** gets more insights about potential victims and **mitigates** the case **more efficient, with fewer damages to property and health**

The key framework about solution is that:

Relevant data would be shared to relevant stakeholders at the right time

Data Sharing and SSI on emergency situations

Our goal is to enable each citizen of the EU to respond to emergency situations faster without risk to community safety.

Challenge

- Lack of relevant information e.g **specific needs and available expertise during** emergency situations
- Lack **data of potential victims** and volunteers (stakeholders)
- Lack of **skills and expertise** to relevant emergency situations

Solution

- Create a **privacy by design data sharing framework** enabling anyone and anything to share relevant (personal) data

Impact

- Use valuable civilian contributions to **extend emergency services capacities** and redefine civilian collaboration.

Storyboard on fire mitigation & SSI + Centralized Data Storage

Bio



Daniel De Jong
Age: 28
Marital status: Married
Kids: 1 boy (8 months)
Occupation: Sales Manager
Location: Amsterdam
Description:

Daniel lives in Amsterdam with his wife, newborn baby and his mother Marie. Marie is 70 years old and she has to use an oxygen bottle to breathe due to health issues. The family has two dogs.

Recently a new application "SafetyCitizen" was released by National Police Department. The main goal of the app is to mitigate fire cases faster and more efficiently by using SSI and Central Data Storage. As Daniel wants that his family has more protection in case of fire, he decided to register on the platform.

Stage: Data Sharing & Storage



Daniel registered in the system and provided relevant data such as:

1. Information about places in the house, where hazardous and flammable materials are stored
2. Information about the pets in the house
3. The power supply plan of the house
4. Information about other family members with disabilities and medical prescriptions.

This data is linked to his Home Address and will be used by firefighters in case of fire.



All provided data is stored on the server and would be provided only to the relevant entities (Dispatch Centre and Fire Brigade) in the relevant time (Fire case)

Stage: Fire Case

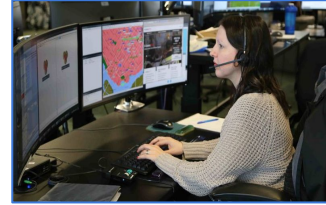
Once upon a time, Daniel's mother forgot the pan on the stove and a fire occurred.



Daniel called to 112 to get a fire brigade to his house.



Stage: Dispatch Centre



By Daniel's address 112's Dispatch Centre Agent received additional info about his profile (e.g. Oxygen bottle, power supply location, pets, and information about family members illness). All relevant data were transferred to Fire Brigade.



Fire Brigade received all relevant data and already on the way to the emergency location

Stage: Mitigate the case





Fire Brigade Leader informed his team about details of the case and emergency team ready to fight the fire!







The emergency case is successfully handled, without victims and less damage to Daniel's property.



UX persona and user stories: Citizen & Government authorities

 Community (Citizen)
 Have full support based on data sharing during emergency cases
 Self - Sovereign Identity Data sharing and securing Engaging UX/UI design
 Engage with community and public services Easy to use service that provides high standards of security

 Government authorities
 Create a new emergency service that fulfils needs of citizens and public services
 Data policy Engaging UX/UI design Unique features
 Ability to add features as requested A service hub that provides connection with government services alongside



Goal







Challenges







Opportunities

- As a Citizen I want to share relevant data to public services so that helps to protect my life and property in case of fire
 - As a Citizen I need to be sure that my data is highly secured so it cannot be stolen
 - As a Citizen I want to contribute to my community so that will increase safety level
 - As a Citizen I want to share my data via fast and user - friendly app, so that saves my time
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- As a Government Authority I want to increase the level of safety in my community, so that improves living conditions of citizens
 - As a Government Authority I want to receive relevant data about citizens in secure and efficient way so that does not violate data regulations
 - As a Government Authority I want to be sure that the public emergency services have all relevant data so that helps to perform their work on a high level

UX persona and user stories: Fire Fighter & Dispatch Centre

 Fire Fighter
 Get all relevant data in order to mitigate fire cases more efficient and bring safety to a new level
 Fast Data Transaction Get updated data
 Skills matching based on received data

 Dispatch Centre Agent
 Deliver all relevant data to fire brigade based on citizens updates
 Fast Data Transaction Get updated data
 Ability to get the latest data updates Engage with fire brigade and citizens in a new way by technology



Goal



Challenges



Opportunities

- As a FireFighter I want to mitigate fire cases faster and efficient so that improves quality of public services
 - As a FireFighter I need to get relevant data at relevant time to save people life and property
 - As a FireFighter I need to get the latest updated data so that will not create problems during the work
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- As a Dispatch Centre Agent I want to receive relevant data at relevant time that helps fire brigade mitigate fire faster
 - As a Dispatch Centre Agent I need to know that data was updated
 - As a Dispatch Centre Agent I want to be sure that I can get access to the relevant data of the victim

Result recommendation

Based on previous use cases we wanted to show why data-sharing policies are vital in order to improve communication between citizens and public services during emergency situations.

Our recommendation is based on the usage of **Digital identity** and **Data Sharing** which enables citizens to have full **ownership** over the usage of personal data to ensure **privacy**.

By authorizing on (pre-)set rules to share information **efficiently** with governmental organizations. Through these authorizations, data sharing becomes more **transparent** and beneficial for citizens, the government, and public services.

Our recommendation would impact:



Citizens

- Contribute to the safe inclusive community



Government

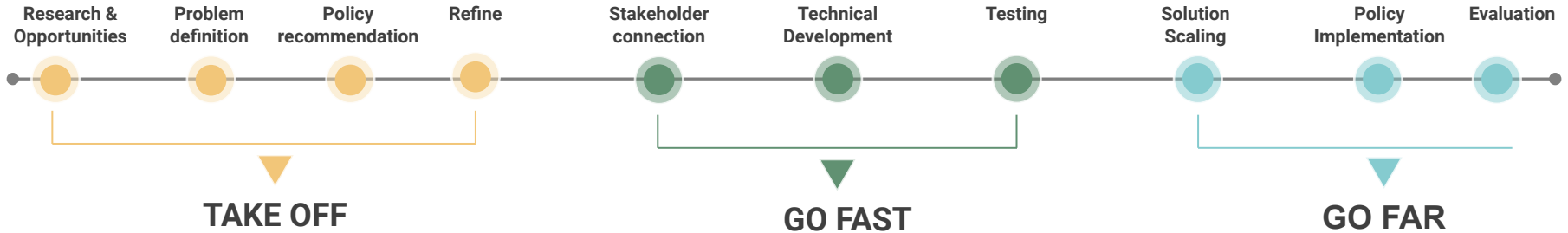
- Improve trust in the face of their citizens



Public Services

- Personalize and extend emergency services capacities

Project roadmap



Define the need, key problem and prepare the policy recommendation

- We did research on Data Sharing, SSI and Emergency Situations
- We have conducted User Research and created UX Personas, User Stories, Wireframes, Storyboard
- We have prepared a recommendation on Data Sharing Policy with focus on emergency situations context
- We refine the recommendation and problem based on the provided feedback

The project will be developed and tested in the Netherlands with support of Dutch police

- We connect with all relevant stakeholders on fire topic which includes (Dutch Police, Dispatch Centre, and Fire Departments, SSI and Real companies)
- We develop a PoC of the solution including all data sharing policy specifications and technical features
- We test solution within 112 community in the real emergency situations

The policy on Data Sharing will be implemented on the EU level and project is scaled to other regions

- We scale our solution on EU level and connect with all relevant stakeholders
- We seek on financial support within the EU granting system
- We implement our solution on the EU level

Our vision

Create a society where we are all safety contributors, not only safety consumers

Contact us



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eXity focuses on Data Visualization, UX design, Machine Learning, and IoT fields. Our purpose is to create a society where all people are change-makers. We empower people to excel through technology.