No.1 Mobile Operator
South Korea's leading mobile operator with more than 26 million subscribers

First Mover in ICT Ecosystem
5G Network
A.I.
Block Chain
Big Data
Social Value Innovation

**Background**

1. Why social value?

**SV Cases**

2. T-Map X NUGU
3. Cookstoves for Myanmar’s citizens

**Collaboration**

4. Blood Management Problems in Korea
5. Accessing and solving problems
6. Proposal of Blood Donor Service Using ICT Technology
Changes in the Role of Corporations

Eternal existence and development

New blue ocean discovery

We are a leading Korean company that leads the Social Value.
Social Value Innovation

1. Why social value?

2. T-Map X NUGU

3. Cookstoves for Myanmar’s citizens

4. Blood Management Problems in Korea

5. Accessing and solving problems

6. Proposal of Blood Donor Service Using ICT Technology
Reduce fuel consumption and Green house gas emissions by navigating the optimum routes

Lead people to have safety driving habits by providing discount on car insurance fee based on driving score

Reduce the traffic accident rate by providing voice UI of NUGU service
Improve thermal efficiency of local residents and save health costs by shortening working hours.

Reduce carbon emissions by 1.60 million tons per year.

Carbon reduction based on CDM model can make additional emission rights.

- Cookstove is an effective tool for reducing carbon emissions, wood firewood, and cooking time by increasing thermal efficiency through a stove made of cement.
Social Value Innovation

1. Why social value?
2. T-Map X NUGU
3. Cookstoves for Myanmar's citizens
4. Blood Management Problems in Korea
5. Accessing and solving problems
6. Proposal of Blood Donor Service Using ICT Technology
Collaboration case of SK Telecom and Korean Red Cross
Blood Donor Platform For Next Generation

- Social Innovation through open collaboration

Proposal case: KRC x SKT

My Healthcare

✅ GOOD  🚸 WARNING  🚸 BAD

Cholesterol  Blood pressure  BMI
Total protein  BUN  ALT  AST
Albumin  Glucose

Precautions

Cholesterol

150mg/dL  250mg/dL

⚠️ You need to manage your cholesterol level.
Have you ever
Donated your **Blood**
My team has experienced blood transfusion
People who exchange their blood annually

3.28 Million

Annual Blood Donor
2,866,330

Annual Blood Donee
409,534

Source: Korea Red Cross Supply and Demand Management Team / Health Insurance Review & Assessment Service Forecast
South Korea is suffering from serious blood shortage

Annual Blood Shortage Amount

12,000 Patients

Minimum Annual Social Loss

$ 46 Million

Source: Korea Red Cross Supply and Demand Management Team / Health Insurance Review & Assessment Service Forecast
And this problem will get worse
(In 2025)

Annual Blood Shortage Amount

60,000 Patients

Minimum Annual Social Loss

$230 Million

Source: Korea Red Cross Supply and Demand Management Team / Health Insurance Review & Assessment Service Forecast
Empty Blood Donation Center..
Blood Donation Disconnection Ratio

89.4%

People who stop to donate their blood after first donation
Q. Why did you stop donating blood?

- 42% Become ill after blood donation
- Others-I I
- Others-III Be disqualified
- Un-satisfaction with reward

How does blood donation help me?
Where did my blood go?
Solution

Platform which brings an actual benefit to blood donors
Blood Donor

How does blood donation help me?

We examine your infections
Blood Donor

How does blood donation help me?

We examine your infections

Mainly focused on blood donees, Not for blood donors
From now on, blood donors

Various information about my health (Cholesterol, ALT, AST, Glucose, etc.)
Receive the comprehensive health information

Various information about my health (Cholesterol, ALT, AST, Glucose, etc.)
Accumulated with each blood donation
Manage changes in health record

Accumulated with each blood donation
To-Be

Disease management, prevention, prognosis control
Compare to statistical health record based on public health data

Disease management, prevention, prognosis control
Use the public health data in the right place

[Donor's Blood Info]
Korea Red Cross

-BIMS Data
(Blood information management system)

-BISS Data
(Blood information sharing system)

Insurance Charging Statistics
Health Insurance & Assessment Service

-Disease Statistics
-Disease Category (3 Level)
-Disease Category (4 Level)

Other Statistics
(Patients, Economic data etc)

[Donor's Health Info]
Health Insurance & Assessment Service

-BUR Service Data
(Drug Utilization Review)

[Blood Donor]
Healthcare Data

-Disease Prediction
-Clinic Data
-KOR BMI Standards
-KOR Glucose Standards
Service Prototype Test

62 Prototype service participants who have stopped to donate their blood
| Period | May 11, 2018 ~ May 29, 2018 |

| Purpose |
Service feedback from the participants who have stopped to donate their blood

| Method |
Data supply & collaboration survey

| Subjects |
Adult who has stopped to donate their blood more than 1 year

2,400 Normal blood donors
| Period | June 29, 2018 ~ July 3, 2018 |

| Purpose |
Service feedback from one time, and multi-time donors

| Method |
Data supply & collaboration survey

| Subjects |
One time and multi-time donor

Proprietary and Confidential Red Connect
User score was high in health care service
(Prototype service participants who have stopped to donate their blood N=62)

When provided healthcare services,
I’m going to use the application.

When provided healthcare services,
I’m going to donate blood more frequently
BLOOD DONOR HEALTH CARE

My Healthcare

- **GOOD**
- **WARNING**
- **BAD**

- Cholesterol
- Blood pressure
- BMI
- Total protein
- BUN
- ALT
- AST
- Albumin
- Glucose

Precautions

Cholesterol

<table>
<thead>
<tr>
<th>150mg/dL</th>
<th>250mg/dL</th>
</tr>
</thead>
</table>

⚠️ You need to manage your cholesterol level.
Platform which brings an actual benefit to blood donors.
To make all blood donors use the platform, APP should satisfy their other needs.
APP Usage Point

Blood Donor

Where do you use my blood?

[Web발신]
김광섭님 4번째 헌혈에 참여해 주셔서 감사드립니다.
헌혈관련증상의 예방을 위해 헌혈 후 유의사항을 꼭 지켜주세요!

1. 권장 사항
① 수분 섭취
② 화물·여객운전자, 다이버, 높은 곳에서 작업하는 경우 등은 헌혈 후 12시간 (항공기조종사는 24시간) 후 업무 복귀

Exit

Lack of trust in blood supply system
Now the blood donors can track where their blood go

Stage 5 - Completion
Blood journey near complete.

Location: Seoul Hospital
Data: 2018-09-01
Platform Goal

3 million blood donor's

Start with the platform which can overcome the blood shortage
Platform Goal

3 million blood donor's

Build the best healthcare platform originating from good deeds
Other Healthcare App

Number of Steps & Calorie Intake

New Smart Blood Donor App

Comprehensive info about my blood
Which one is more valuable service?

Number of Steps & Calorie Intake

Comprehensive Info about my blood

Blood Journey

Storage Status
Collaboration Model

**[Red Cross potential benefit]**
1. Blood donor app renewal
2. Add positive UX contents in the blood donor center
3. Improve the donor retention rate by healthcare service

**[Health Connect potential benefit]**
1. Application active user group
   - 300,000~500,000 regular donor
2. Obtain the health related index
3. Contribute to social value creation

**[SV Innovation Center potential benefit]**
1. Create value by solving social problem
2. Set an example of achieving double bottom line (economic + social)
3. Build sustainable cooperate relations

**[Public institution potential benefit]**
1. Get a public data usage reference
2. Contribute to social value creation

**[Healthcare company potential benefit]**
1. Collect 1.6 million donor’s data
2. Contribute to social value creation
3. Make sales performance & reference
## Service development plan

<table>
<thead>
<tr>
<th>Milestone output</th>
<th>1M</th>
<th>2M</th>
<th>3M</th>
<th>4M</th>
<th>5M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
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<tr>
<td>Design</td>
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<td>Iteration II</td>
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<td>QA</td>
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</tr>
</tbody>
</table>

- **1M**: Requirement specification document
- **2M**: Design document
- **3M**: Environment setup & interface setting
- **4M**: Donation reservation, healthcare service
- **5M**: Blood donation community service

---

5 months, 19 man power estimated for software development
Expected performance

Social value creation for next 3 years

$282.6 million + \alpha

In case the project can increase 10% of repetitive donors

1. Blood supply stabilization
   - Blood price
   - Transfusion delay cost
   = $282.6 million

2. Preventive medical test
   1. Cover the blind spot in healthcare such as 10-30 generation
   2. Shortening the health check cycle

Calculate the social value of our service with Health Insurance Review & Assessment Service
Health & medical field jobs makes up 6.8% of the total jobs

Health & Medical job ratio 6.8%  
OECD Average 10.1%  

OECD Avg. 10.1%  
Korea 6.8%  

Create high quality jobs in health and medical field  

Job creation effect  

Direct creation 759  
In-direct creation α  
Drug company  
Blood mgt  
Public job  
Health care industry  

Ministry of Health & Welfare : 2018 Employment Effectiveness Index
Healthcare Platform Roadmap

Red Connect

Build personal health platform based on blood donation information

Proprietary and Confidential Red Connect
External Comm. & Global Business Expansion

SV Creation Research Project with HIRA

- Calculate the Social Values created by blood donor healthcare service and blood location service
- Compose the expert group consist of big data analyst and social value measurement experts of SK

Global Red Cross Comm.

- American Red Cross, Swedish Red Cross and Japanese Red Cross send positive feedback about our service
- Collaboration, benchmark and service sales in the future

MWC 2019 Attend

- 25-28 Feb 2019, Barcelona, Spain
- The largest mobile event in the world, bringing the latest innovations and technologies from more than 2400 leading companies.
- Service sales, business networking, new business opportunity
Awards

Healthcare Big Data Contest 1st Prize

Public Data Contest 3rd Prize (Prime Minister Prize)

2018 Healthcare Big Data Contest Health Insurance & Assessment Service

2018 6th Government Public Data Start-up Contest
Thank you
Appendix

Red Connect Project Profile

Red Connect is a SV collaboration project of SKT SV Innovation Center

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Seoul National University Business School
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Appendix

Blood Donor Platform Prototype URL

https://goo.gl/Daume7

Enter the QR code or URL and experience the new blood donor service.

https://ovenapp.io/view/KmGTbcfxzJSlOzUmwTJpqPJ1IkDik5xw/UIZBv

번 URL: https://ovenapp.io/view/yAEf5vm4IKmrceUQXMTnNwBX26ZARIi43/UIZBv