![IcARUS logo - INNOVATIVE APPROACHES TO URBAN SECURITY]

Riga Tool – Proposed design concept

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02 August 2023

Background

Safe Public Spaces

Riga police officials suggest that the official statistics often do not reflect the actual security situation experienced by citizens. They believe that there exists a gap between actual and perceived crime and that their existing mechanisms to decide on police tactics solely based on official statistics do not take into account citizens' priorities and experiences. The citizens use the Riga police smartphone application and the social media handles to complain about practical issues rather than to express feelings of [in]security. While a citizen survey administered once every two years by the city exists, the police cannot make ad-hoc decisions and make responsive changes to their tactics to tackle problems sooner. Moreover, the long interval between surveys does not allow residents to express their reactions sooner, and the results are biassed toward recent events rather than regular/recurring ones.

Based on quantitative data on the reported incidents and qualitative data from the citizens, the Riga police want to change the reaction priority on certain types of incidents and make *changes in the schedule of officers and technical resources used.*

Problem statement

In what ways might we understand and gather data to assess citizens' perceptions of security risks in the districts of Riga to improve efficiency in the deployment of police services?

Proposed design concept

Concept Name

Par drošu Rīgu! (For a safe Riga).

Concept Logo

Par drošu
Rīgu

Overview

Par drošu Rīgu! provides an evidence-based approach to modifying and adapting district/neighbourhood policing tactics by analysing the police records and sentiments of the citizens together. The tool involves multiple stakeholders — municipal police, district population services of the municipality and NGOs — who drive it forward at their level. Together with all the stakeholders, the tool delivery in a neighbourhood will cover a period of four weeks each time, comprising the following key activities:

- Analyse the incident records from the police records to understand the trends of incidents and the response of the police.

- Collect citizens' feedback on feelings of insecurity, fear of harm, trust in police and disorder among the residents.

- Analyse the citizens' feedback to understand their insecurities, fears and confidence in police and neighbours.

- Compare the analysis of the incidents records with the citizen's feedback to update the policing tactics.

The main constituent of the tool is a web application which will be used by the Chiefs of the Departments. The web application will contain information about the tool, its implementation, manuals to use the tool, an interface to analyse incident data, citizen feedback, and retrieve the previous analysis reports. The only external constituent of the tool will be Microsoft Forms which will be used to collect responses for citizen feedback.

Components

Par drošu Rīgu! comprises the following components:

- Three survey questionnaire templates for the citizen survey and one to collect feedback on the surveying experience.

- Incidents data from police records and survey responses data

- Guidelines to CoDs selecting surveyors/organisations to be part of the survey

- Guidelines for interpreting the results and understanding the limitations of the analysis

- General and specific surveying protocols for each of the Patrol Officers, Local Coordinators and NGO Volunteers on surveying locations, surveying times and selecting respondents

- Training manuals to train the surveyors on approaching participants, interviewing and collecting responses

- Technical manual to install the web application for the IT team

- User manuals to use web applications and surveying software

- The web application with the following sub-components:

  - Description of the tool, the web application and its features

  - Manuals and guides to various elements of the tool

  - Interface to analyse incidents records, survey responses and surveyors' feedback

  - Accessing previous analysis reports

How it Works

Riga has 56 neighbourhoods with distinct identities and specifics. These neighbourhoods form six districts, and six police stations in each of those districts are responsible for public order. The Chief of the Department (CoD), who heads the police of a district, decides to use the tool to update the police tactics in a neighbourhood or the district, usually twice a year in April/May and in September/October. Each time the tool runs for four weeks and brings together a range of actors, the municipal police, district municipal centres and NGOs. Par drošu Rīgu! is composed of the following activities:
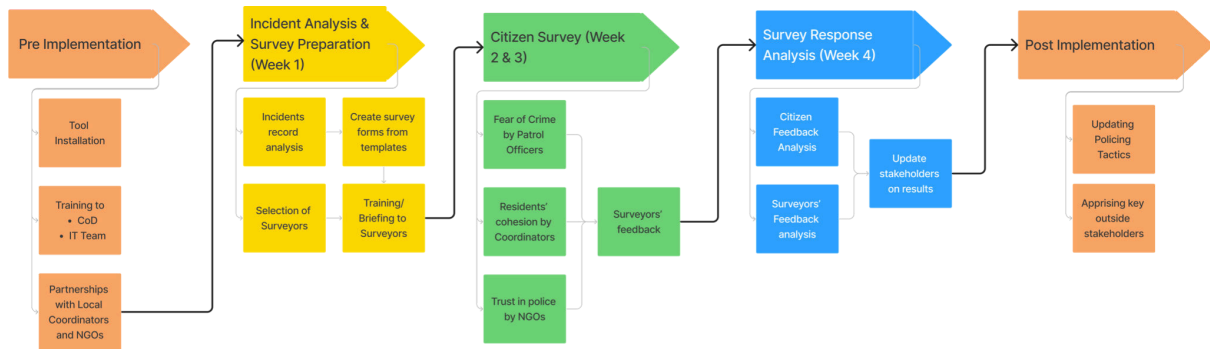
Figure 1: Process Map for Par drošu Rīgu! with Timeline

Incident Records Analysis

The municipal police have data records of incidents reported in the city during the year. The data is either recorded automatically if the reports are received through the RMP mobile application or manually by the head of the shift for the reports through phone calls or by the patrol officers registered through their tablets in patrol cars.

The incidents data contains the following information about the incident: date, time, location, description, and category (hooligan acts, residents complaints, family conflicts, under the influence of alcohol), compiling authority, source, resolved by telephone (or not), the action was taken (or not), handling police unit and few other details. The CoD exports the data in a machine-readable Excel file from their system after:

1. Removing personal information such as name and contact details of the people involved in the incident and information on age, and gender that can reveal the identity when used together with other data.

2. Removing personal information of the officers associated with each event.

CoD uploads the previous year's incidents records into a web application (developed as part of the IcARUS project) to produce a neighbourhood-level analysis (through graphs and plots) of the records on a webpage. The analysis will exclude the records that were resolved by phone or where the complaint was cancelled and the webpage will contain the following visualisations of the data for the chosen neighbourhood during the selected time period (usually April to September and October to March):

1. A column graph visualising the count of incidents in each neighbourhood of the district containing the chosen neighbourhood.

2. A row plot visualising the proportion of incidents compiled by various authorities.

3. A two dimensional (2D) plot visualising the frequency of incidents at each hour for each day and every month.

4. A bar plot visualising the ratio of incidents on each weekday for every month.

5. A ranked row chart listing the top 10 most most frequent addresses of incidents.

6. A choropleth map (geo-localised map) of the frequency of incidents at all recorded addresses.

7. A ranked bar chart visualising the proportion of each incident for every month.

8. A two dimensional (2D) plot visualising the number incidents reported by each information source on each incident category for every month.

9. A heatmap visualising the average arrival time (time elapsed between the time of departure and time of arrival) for incidents reported by each information source on each incident category for every month.

10. A heatmap visualising the average completion time (time elapsed between the time of arrival and time of completion) for incidents reported by each information source on each incident category for every month.

Citizen Survey

The second step comprises a survey of the citizens of the city. Three groups of surveyors will interview the pedestrians and the residents in each neighbourhood separately on aspects of feelings of insecurity, risk of personal harm, trust in police and cohesion among residents. The survey questions adapted from the literature and updated after prototyping with the users are available in the *Citizen Survey* section and the guidelines for the surveyors in the *Guidelines for collecting survey responses* section. The citizens who answer the survey will receive reflective badge/lapel pins with the logo of the tool on it.

1. CoD will oversee the survey which will last for two weeks.

2. CoD will request the Riga municipal police social media team to announce on their social media accounts that the patrol officers, municipal coordinators and the NGO volunteers will conduct a survey in a certain neighbourhood and request the citizens to cooperate.

Social Media Post

Hello **[Name of the Neighbourhood]** Residents!

This week we are kicking off the Par drošu Rīgu survey. Our dedicated patrol officers, local coordinators and dedicated NGO volunteers, will be popping by.

Your voice matters! This survey aims to enhance community safety and make our neighbourhood even better. We kindly request your cooperation when our surveyors approach you.

Let's work together for a safer, stronger community! #CommunityFirst #YourVoiceMatters

3. The surveyors are the patrol officers working in the neighbourhoods, local coordinators at the district municipal centre and volunteers from the NGOs.

   a. The reasons for the choice of surveyors and the division of the questions between them are twofold. First, it is the competent understanding of the surveyors about their vicinities - the patrol officers on the streets, NGOs about their communities and the coordinators about their district, and the second is a bid to avoid asking questions about their self-work.

4. Before the start of the survey the CoD will

   a. Select 10 patrol officers with a balance of male and female officers who:

      ● Have good communication skills

      ● Are knowledgeable about the district and neighbourhood

      ● Are approachable

      ● Are interested in community policing and CPTED

      ● (Preferably) have previous experience in exchange trips with other EU police.

   b. Request the district municipal centres to delegate the local coordinator to conduct the survey.

      ● Each district municipal office will assign a coordinator who is knowledgeable about the neighbourhood and cooperates with the neighbourhood associations and they will seek responses from the citizens.

   c. Select the NGOs working for the development of the neighbourhood and request them to delegate volunteers

      ● Have good communication skills

      ● Who are familiar with the neighbourhood

      ● Have desire to develop the neighbourhood

      ● And at least few of them are residents from the neighbourhood

   d. The CoD will ask the IT teams to create the copies of three questionnaires and the surveyors' feedback form from the templates for the current time period and neighbourhood using Microsoft forms and provide access to the respective surveyors to fill them. Guidelines for creating survey questionnaires section the guidelines for creating and providing access to the questionnaires.

5. The three surveyor groups will be:

a. Patrol officers at the neighbourhood level

- will collect responses from the people passing through the neighbourhood streets about their fears of [in]security.

- [Questionnaire](#)

- The questionnaire contains questions on whether the respondent was worried about four types of crimes in the past six months. The CoD decides on the four crime types guided by the [incident records analysis](#).

b. Local coordinators of the district municipal centres

- will collect responses from the citizens (belonging to the surveying neighbourhood) visiting the district municipal centre about the cohesion among the residents and the disorder in the neighbourhood.

- [Questionnaire](#)

c. Volunteers from the NGOs

- will collect the responses from the citizens (belonging to the surveying neighbourhood) participating in the NGO activities and public events for the third part of the survey on the anxiety of crime, trust in police and perceived risk of harm.

- [Questionnaire](#)

6. The survey will be conducted through an online tool using a mobile/tablet device and responses will be stored on cloud storage.

a. The CoD will request the Riga Municipal Police HeadQuarters (HQ) IT teams to grant restricted access to the survey questionnaire to the selected surveyors.

b. The patrol officers will use the tablets provided to them in patrol vehicles and the local coordinators and the NGO volunteers will use their personal devices to collect the responses.

c. Each group of surveyors will gather at least 100 responses per 1000 residents.

d. The survey responses will be stored on cloud storage and only the CoD can access them.

7. After the completion of the two-week survey, the CoD will

a. Request the HQ IT team to stop accepting the answers on the online forms and revoke access to the survey questionnaire for the surveyors.

b. Collect feedback from the surveyors about the interviewing experience, suggestions and comments to improve the survey and surveying experience.

- The feedback forms will be exclusively shared with the surveyors.

Surveyor	Surveying citizens of neighbourhood	Topic
Patrol Officers	Passing through the streets	Feelings of insecurity
Local Coordinators	Visiting the district municipal centre	Cohesion among the residents and the disorder in the neighbourhood
NGO volunteers	Participating in the NGO activities and public events	Anxiety of crime, trust in police and perceived risk of harm

Citizen Survey Analysis

After the completion of the two-week survey, the CoD executes a predefined program (available on the web application developed as part of the IcARUS project) by providing the survey responses as input, and it will produce a neighbourhood-level analysis of the survey responses on a webpage. The program will summarise and aggregate the responses at the neighbourhood level, and with an age/gender split for each plot the webpage will contain:

1. Summary count the respondents for each type of the survey.

2. Scatter plot showing the frequency and a histogram showing the rate of fear of theft, intoxicated people, hooliganism and people lying/sleeping on the street over the last six months.

3. Bar plot visualising the fear of using public transport

4. Two word clouds showing the streets avoided by respondents due to fear of crime during the day and night.

5. Histogram visualising the preferred patrol locations by the respondents.

6. Bar chart showing the fear of safety among the respondents due to abandoned buildings, littering/garbage in streets, people drinking or drunk in the street, abandoned vehicles, and Vandalism in the last six months.

7. Histogram visualising the cohesion among residents in terms of willingness to help, reliability and trust.

8. Histogram visualising the actions residents are willing to take on the suspicion of a burglary.

9. Bar plots on the perception of police in terms of prompt reaction, effectiveness, fair treatment and satisfactory work.

10. Frequency plots visualising the fear of burglary, theft, robbery and assault in the past six months and the coming year among the residents.

Updating Policing Tactics

In the last step, CoD will study the survey results together with incidents records analysis and other relevant information to plan for changes in policing tactics. The tactics will primarily include scheduling of officers, technical resources used, and reaction priority on certain types of incidents.

1. The comparison at least includes

   a. Contrasting the trends in incidence occurrence with the citizens' fear of different crimes to reschedule patrols.

   b. Prioritising the reaction to incidents based on the differentials in incidence numbers compared to the previous half of the year.

   c. Scheduling meetings with the neighbourhood residents' communities based on the feedback on cohesion among residents.

Apprising the Stakeholders

The CoD shall update the strategic planning office of the municipal police HQ about such feedback that is outside their purview.

1. The strategic planning office will further share the feedback with the relevant departments of the municipality if it is outside their purview as well.

Additionally, the CoD will share the relevant parts of the analysis, their commentary on the results and the planned next steps with the NGOs and the municipal centres in a meeting with them. In addition to sharing the results, the CoD will share the feedback received from the surveyors and any planned changes.

Meeting Invitation

Dear partners,

I hope this message finds you well. I greatly appreciate your active participation in the recent Par drošu Rīgu! Survey in [**Name of the Neighbourhood**] during [**Time of the Survey**], where your invaluable contributions have provided us with essential insights into our community's needs and concerns.

I cordially invite you to an interactive survey results analysis and feedback session, where we will present the key findings, trends, and potential areas of focus. This session will also

serve as an open platform for you to provide your feedback on the analysis, ensuring that your perspectives are fully integrated into our future initiatives.

Date: [**Date of the Session**]

Time: [**Start Time**] - [**End Time**]

Location: [**Venue or Virtual Meeting Link**]

Agenda:

1. Welcome and Introduction

2. Presentation of Survey Results Analysis

3. Insights and Trends Discussion

4. Open Floor for Feedback and Suggestions

5. Next Steps and Collaborative Planning

Thank you once again for your dedication and commitment to our community's well-being. We look forward to your presence at this enlightening session. Together, we can work towards a safer, more vibrant, and harmonious environment for everyone in Riga.

Warm regards,

[**Name of CoD**],

Chief of the Department - [**Name of the Department**]

Tool Delivery Programme

The following activities will occur before introducing the tool and during the four weeks of the tool execution.

Week 0

Before implementing and using the tool, the strategic planning office will meet with the HQ IT team and the CoDs.

Installation

The strategic planning office will organise a workshop with members of the Riga Municipal police's IT department to summarise the tool and provide them with the necessary training to aid the chiefs and other stakeholders in the tool usage and implementation.

Briefing meeting – for the CoDs delivering the survey

The strategic planning office will organise a briefing meeting with the CoDs from all districts of Riga city to explain the tool, provide them with the necessary training to use the web application, and elaborate on the actions at each stage of the tool usage and limitations in the interpretation of the results. The IT department will also be present during the training.

Week 1

The activities of week 1 will happen before running the survey every time, i.e., twice a year.

Performing incidents records analysis

The CoD will export the incidents data from their system as an excel and executes a predefined program (available on the web application developed as part of the IcARUS project) by providing the exported data as input which produces the incident analysis report on a webpage.

Selection of the surveyors

The CoD will select the patrol officers, and request the district municipal centre for the support of the local coordinator and NGOs to delegate volunteers to be the surveyors.

Briefing and training meeting – for those delivering the survey

After selecting the surveyors, the CoD will conduct a training and briefing meeting to explain the purpose and each individual's role in implementing the tool. The training includes explaining the surveying etiquette, ground rules on the selection of respondents and surveying and how to fill out the online survey form. The patrol officers, the local coordinator and NGO volunteers will be part of the briefing meeting and only first timers will attend the training.

Weeks 2 & 3

Citizen survey is conducted

The citizens' survey is conducted through weeks 2 and 3. A minimum of 100 responses per 10,000 residents for each part of the survey will be collected making sure that the respondents do not answer the same group of questions more than once.

Week 4

After the completion of the two-week survey, the CoD in each district stops accepting the answers on the online forms. The surveyors will be requested to fill a feedback form.

Citizen survey analysis

The CoD will analyse survey responses and produce a report.

Surveyors feedback analysis

The CoD will also analyse the feedback of the surveyors.

Updating policing tactics

After the analysis of the survey responses, the CoD in each district will study the results of the survey and the analysis of incidents records to plan for changes in policing tactics.

Apprising the stakeholders

The district chiefs will present the results to the NGOs and district municipal centres that were part of the survey.

Guidelines for creating and sharing citizen survey questionnaires

The citizen survey will take place through Microsoft Forms. The CoDs and the IT teams will have access to the template survey forms for each part of the three-part survey and will ask the IT teams to create copies of those forms for each run of the tool. The names of the template survey forms by the patrol officers, local coordinators and NGO volunteers are

- fear-of-crime_PO_<Neighbourhood-name>_<Month>_<Year>,

- resident-cohesion_LC_<Neighbourhood-name>_<Month>_<Year> and

- harm-police-trust_NGO_<Neighbourhood-name>_<Month>_<Year>, respectively.

The name of the fourth form to collect the surveyors' feedback is surveyor-feedback_<Neighbourhood-name>_<Month>_<Year>.

1. The IT team will create copies of the template survey form already available to them and fill in the appropriate neighbourhood name, month and year of the survey in the name of the form.

2. COD will collect the email addresses of the selected surveyors and will ask the IT teams to share each part of the survey with the respective surveyors and the feedback questionnaire with everyone.

   - The surveyors will receive an automatic email with a link to access the survey.

3. Each surveyor can access their survey by logging through their email and filling in the responses each time they interview a respondent.

Citizen survey questionnaire

The survey by the patrol officers will be based on Gray et al "Feelings and Functions in the Fear of Crime"[1] and does not contain any questions about the police or the residents. The survey by the local coordinators and the NGOs will be based on Reid et al "Developing a model of perceptions of security and insecurity in the context of crime"[2].

Part 1 - Feelings of insecurity

Surveyors: Patrolling Officers

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[1] Emily Gray, Jonathan Jackson, Stephen Farrall, Feelings and Functions in the Fear of Crime: Applying a New Approach to Victimisation Insecurity, The British Journal of Criminology, Volume 51, Issue 1, January 2011, Pages 75–94, https://doi.org/10.1093/bjc/azq066

[2] Iain Douglas Reid, Sandra Appleby-Arnold, Noellie Brockdorff, Ivana Jakovljev & Sunčica Zdravković (2020) Developing a model of perceptions of security and insecurity in the context of crime, Psychiatry, Psychology and Law, 27:4, 620-636, DOI: 10.1080/13218719.2020.1742235

Respondents: Pedestrians in the officers patrolling jurisdiction

Introduction - Instructions to the Surveyor

"*Greetings. We are patrol officers making a short survey about the <<Name of the neighbourhood>> neighbourhood. Have you been approached by the other officers about such a survey?*"

If Yes, say "*Thank you for your time*" and move on to another person.

If No, continue with "*Can you answer a few questions about the neighbourhood? It will take a couple of minutes.*"

If the respondent disagrees, say "*Thank you for your time*" and move on to another person.

If the respondent agrees, then continue asking them the questions and recording their responses.

Questionnaire

To be filled by Surveyor

1. Survey District
2. Survey Neighbourhood

For the Respondents

Demographic Information

1. Age Group: *(18-29, 30-41, 42-53, 54-65, 66 and above)*
2. Gender: *(Woman, Man, Others, Prefer not to say)*
3. Profession: *(Student, Salaried worker, Seeking opportunities or Self Employed, Others)*
4. Resident in the surveying neighbourhood: *(Yes/No)*
   - If not, the residence neighbourhood:
   - How frequently do you visit this neighbourhood *(every day, once a week, once a month, two-three times a month, twice a year, once a year, prefer not to say)*

Feelings of insecurity

1. In the past six months, how frequently have you worried about the theft on the street? *(n times)*
   - If at least once, On a scale of 1-5, how fearful did you feel on the last occasion? (*1 = not at all fearful and 5 = extremely fearful*)

2. In the past six months, how frequently have you worried about intoxicated people on the street? *(n times)*

   - If at least once, on a scale of 1-5, how fearful did you feel on the last occasion? (*1 = not at all fearful and 5 = extremely fearful*)

3. In the past six months, how frequently have you worried about hooliganism, including petty on the street? *(n times)*

   - If at least once, on a scale of 1-5, how fearful did you feel on the last occasion? (*1 = not at all fearful and 5 = extremely fearful*)

4. In the past six months, how frequently have you worried about the people lying/sleeping on the street? *(n times)*

   - If at least once, on a scale of 1-5, how fearful did you feel on the last occasion? (*1 = not at all fearful and 5 = extremely fearful*)

5. On a scale of 1 to 5, how safe and secure do you feel in public transport after dark? *(1 = not at all safe and 5 = completely safe; I never travel by public transport)*

6. In the past six months, have you avoided certain streets or areas during the day, because of fear of crime?

   - If YES, provide the name of the most frequently avoided street in the day:

7. In the past six months, have you avoided certain streets or areas during the night, because of fear of crime?

   - If YES, provide the name of the most frequently avoided street in the night:

8. Please tick up to three locations that would benefit from police patrols. *(in your residential area; at your public transport stop; in the neighbourhood centre; at the shopping centre; other (Please specify))*

Conclusion - Instructions to the Surveyor

"Thank you for your patience and answering the survey. As a token of appreciation, we would like to give you a reflector badge."

Hand over a badge to the respondent.

Part 2 - Residents' Cohesion and Disorder in the Neighbourhood

Surveyors: Local coordinators from the district municipal centres

Respondents: Residents in the municipal district's neighbourhood

Introduction - Instructions to the Surveyor

"*Greetings. We are making a short survey about the <<Name of the neighbourhood>> neighbourhood. Are you a resident of this neighbourhood?*"

If No, say "*Thank you for your time*" and move on to another person.

If Yes, continue with "*Can you answer a few questions about the neighbourhood? It will take a couple of minutes.*"

If the respondent disagrees, then say "*Thank you for your time*" and move on to another person.

If the respondent agrees, then continue asking them the questions and recording their responses.

Questionnaire

To be filled by Surveyor

1. Survey District

2. Survey Neighbourhood

For the Respondents

Demographic Information

1. Age Group: *(18-29, 30-41, 42-53, 54-65, 66 and above)*

2. Gender: *(Woman, Man, Others, Prefer not to say)*

3. Profession: *(Student, Salaried worker, Seeking opportunities or Self Employed, Others)*

Cohesion and Social Order

1. In the past six months, on a scale of 1-5, do you feel fearful about the following problems in the area where you live: *(1 = not at all fearful and 5 = extremely fearful)*

   - Abandoned buildings

   - Littering/garbage in streets

   - People drinking or drunk in the street

   - Abandoned vehicles

   - Traffic congestion

   - Vandalism

2. On a scale of 1-5, Please state to which extent you agree or disagree with the following statements: (*1 = strongly disagree and 5 = strongly agree*)

- People in the area where I live are willing to help their neighbours

- People in the area where I live know each other well

- If I sensed trouble in the area where I live, I could rely on the people who live there for help

- People in the area where I live can be relied upon to call the police if they see something suspicious

- People in this neighbourhood can be trusted

3. If you suspect a burglary in your street, how would you respond? *(call the police on 110; call the police on 1188; investigate the situation yourself; contact a neighbour; take no action; other (Please specify))*

Conclusion - Instructions to the Surveyor

"Thank you for your patience and answering the survey. As a token of appreciation, we would like to give you a reflector badge."

Hand over a badge to the respondent.

Part 3 - Perceived Risk of Harm and Trust in police

Surveyors: Volunteers from the NGOs

Respondents: Residents in the municipal district's neighbourhood

Introduction - Instructions to the Surveyor

"Greetings. We are volunteers from the <<Name of the NGO>> making a short survey about the <<Name of the neighbourhood>> neighbourhood. Have you been approached by the other volunteers?"

If Yes, say *"Thank you for your time"* and move on to another person.

If No, continue with *"Are you a resident of this neighbourhood?"*

If No, say *"Thank you for your time"* and move on to another person.

If Yes, continue with *"Can you answer a few questions about the neighbourhood? It will take a couple of minutes."*

If the respondent disagrees, then say *"Thank you for your time"* and move on to another person.

If the respondent agrees, then continue asking them the questions and recording their responses.

Questionnaire

To be filled by Surveyor

1. Survey District
2. Survey Neighbourhood

For the Respondents

Demographic Information

1. Age Group: *(18-29, 30-41, 42-53, 54-65, 66 and above)*
2. Gender: *(Woman, Man, Others, Prefer not to say)*
3. Profession: *(Student, Salaried, Seeking opportunities or Self Employed, Others)*

Perceived risk of harm and Trust in police

1. On a scale of 1-5, please state to which extent you agree or disagree with the following statements: (*1 = strongly disagree and 5 = strongly agree*)

    - Our local police react promptly if called in an emergency
    - Our local police deal effectively with crime issues in the area where I live

- Our local police treat everyone fairly

- Our local police listen to people's concerns

- Our local police are dealing with the things that matter in the area where I live

- Our local police do a good job in the area where I live

2. On a scale of 1-5, how likely do you think each of the following crimes to happen during the next six months: (*1 = not at all likely and 5 = extremely likely)*

- Someone breaking into your home

- Someone stealing items that belong to you without using force

- Someone taking something from you by force or threat of force

- Someone harassing, threatening, or verbally abusing you

- Someone beating or attacking you

3. In the past 3 months, how often were you worried about: *(n times)*

- Someone breaking into your home

- Someone stealing items that belong to you without using force

- Someone taking something from you by force or threat of force

- Someone harassing, threatening or verbally abusing you

- Someone beating or attacking you

- Someone threatening or attacking family members

- Someone threatening or attacking your friends

Conclusion - Instructions to the Surveyor

"Thank you for your patience and answering the survey. As a token of appreciation, we would like to give you a reflector badge."

Hand over a badge to the respondent.

Guidelines for collecting survey responses

This section provides general and specific guidelines for the surveyors to aid them in selecting, approaching and interviewing the respondents.

1. The surveyors should aim for a diverse set of respondents whose age and gender distribution should reflect the age and gender distribution of the neighbourhood population, subject to the availability of the data.

2. The surveyors should explain the aims and objectives of the survey.

3. Only the surveyors should fill out the online survey forms and they should not spread the surveys on public communication channels.

4. The survey respondents should be above the age of 18.

5. The respondent is willing to be part of the survey and gives consent to collect the data.

6. The respondent is a resident of the city of Riga.

7. The respondent has not answered the same part of the survey during the current survey period.

8. In case of doubt, the surveyors will contact the CoD by Email.

Guidelines to the Patrol Officers

1. Patrol officers should interview people passing through the neighbourhood.

2. Patrol officers can record the responses of citizens who frequent but do not reside in the neighbourhood.

    a. A citizen visiting a neighbourhood regularly for work, education, or more than 3 times a week can be considered a frequent visitor.

3. Patrol officers should avoid approaching citizens hurrying through the streets.

4. Patrol officers should collect responses evenly at all parts of the day (morning, afternoons, evenings and nights).

5. Patrol officers should collect responses evenly at important parts of the district (Parks, sports centres, cultural and entertainment facilities, school zones, public gatherings, administrative and sleeping areas etc.).

6. Patrol officers should collect responses evenly from different types of respondents (Young adults, working citizens, parents with children, citizens walking pets etc).

Guidelines to the Local Coordinators

> 1. Local coordinators should interview people visiting the district municipal centres.
>
> 2. Local coordinators should record the responses of citizens who reside in the surveying neighbourhood.

Guidelines to the Volunteers

> 1. Volunteers should record the responses of citizens who reside in the surveying neighbourhood.
>
> 2. Volunteers can collect responses from the members of their community that fulfil the other criteria and at important parts of the district (Parks, sports centres, cultural and entertainment facilities, school zones, public gatherings, administrative and sleeping areas etc.).

Surveyors' feedback

To improve the survey and the surveying experience of the Par drošu Rīgu!, CoDs will collect feedback from the patrol officers, local coordinators and volunteers.

Questionnaire

> 1. Surveyed District
>
> 2. Surveyed Neighbourhood
>
> 3. Survey Period
>
> Demographic Information
>
> 1. Age Group: *(18-29, 30-41, 42-53, 54-65, 66 and above)*
>
> 2. Gender: *(Woman, Man, Others, Prefer not to say)*
>
> 3. Category: *(Patrol officer, Local coordinator, NGO volunteer)*
>
> Surveying
>
> 1. On a scale of 1–5, how would you rate your overall experience of the survey? *(1 = Terrible, 2 = Poor, 3 = Neutral, 4 = Good, and 5 = Excellent)*
>
> 2. On a scale of 1–5, how enthusiastic/willing were the respondents about the survey: *(1 = not at all enthusiastic/willing and 5 = extremely enthusiastic/willing)*
>
> 3. On a scale of 1–5, how difficult did you feel about the following items: *(1 = not at all difficult and 5 = extremely difficult)*

        a. Explaining the survey to the respondents

        b. Identifying the respondents

        c. Identifying the respondents with age diversity

        d. Identifying the respondents with gender diversity

        e. Identifying the respondents who are residents of the same neighbourhood

4. Will you be interested to continue as the surveyor for the next edition in this neighbourhood?: *(Yes, No, Maybe)*

5. Were there any questions that the citizens did not prefer to answer?

6. What was your favourite part of the surveying?

7. Could you tell us about your least favourite part of the surveying?

8. Do you have any suggestions for the next edition of the survey?

9. Do you have any suggestions/comments you received from the citizens during the survey to share with us?

Web application

The web application element of Par drošu Rīgu! will aid the CoDs in using the tool. The application will have four components:

1. The first component will describe Par drošu Rīgu!, the web application and its features.

2. The second component will provide manuals and guides to various elements of Par drošu Rīgu!.

3. The third component will provide an interface to analyse incidents records, survey responses and surveyors' feedback.

4. The last component will aid to access the previous analysis reports.

About

The about page will serve as the entry point to the CoDs using the web application. It will contain a detailed description of Par drošu Rīgu! and descriptions of the features of the web application, namely, the applications to analyse incidents records, survey responses and surveyors' feedback.

Manuals and Guides

This page will provide access to step-by-step guides on how to use the analysis apps on the web application. Additionally, it will include

1. the guidelines to the CoDs to recruit the surveyors, oversee the citizen survey and analyse the results,

2. the guidelines for the surveyors for interviewing the respondents

3. The training material for the IT teams, CoDs and the surveyors

Analysis applications

Application for Incidents Records Analysis

This application page accepts the incidents records file, district and neighbourhood details and start and end dates as input for the analysis and displays the plots and graphs generated by analysing the responses on a new webpage and a text box to add comments by the CoD. Along with saving the results to retrieve in future, it will also have the option to export them to a PDF file.

Application for Citizen Survey Analysis

This application page accepts three survey response files (for each surveyor type), the district and neighbourhood details as input for the analysis and displays the plots and graphs

generated by analysing the responses on a new webpage and a text box to add comments by the CoD. Along with saving the results to retrieve in future, it will also have the option to export them to a PDF file.

Application for Surveyor's Feedback Analysis

This application page accepts the responses of the surveyors on the feedback questionnaire and district and neighbourhood details as input for the analysis and displays the plots and graphs generated by analysing the responses on a new webpage and a text box to add comments by the CoD. Along with saving the results to retrieve in future, it will also have the option to export them to a PDF file.

Previous Reports

This page will provide CoDs access to the previous analysis reports of their district and neighbourhood. CoDs can filter based on the type of report (incidents record analysis, survey responses or surveyor's feedback), the date of the previous report, the district and the neighbourhood. Additionally, the CoDs will be able to compare any of the analyses with up to three same types of previous analyses by showing the plots and graphs side-by-side.

Guidelines for interpreting the analysis

This section provides a set of general and specific guidelines for interpreting the results of the analysis for the CoDs.

General Limitations and Guidelines

Correlation vs. Causation

- Limitation: Correlations between variables do not necessarily imply causation. Just because two variables are associated doesn't mean one causes the other.
- Guideline: Avoid making causal claims based solely on correlations. Clearly state when a relationship is observed but refrain from drawing definitive causal conclusions without additional evidence.

Selection Bias in Visualization

- Limitation: The choice of visualisation type can influence how data is perceived. The use of chart types might unintentionally emphasise certain aspects while downplaying others.
- Guideline: It will be important to corroborate the conclusions with additional data and ground reality to obtain a more comprehensive picture.

Context and Interpretation

- Limitation: Visualisations can simplify complex data, potentially oversimplifying nuances and context.
- Guideline: Provide clear explanations of the visualisations, including the context in which they should be interpreted while sharing the results with others. Consider providing supplementary information for deeper understanding wherever necessary.

External Factors and Confounding Variables

- Limitation: External factors such as media coverage, economic conditions, or cultural events might influence incident reporting, survey responses and trends.
- Guideline: Acknowledge the presence of potential confounding variables and external influences while interpreting the visualisations.

Incidents Records

The analysis of the incident data and subsequent visualisations are based on the data included in the export created by CoD and reflect the reports received during the selected period. In addition, the incidents resolved through telephone and a recall received are excluded from the analysis. The visualisations only reflect the situation during the selected period and in that particular neighbourhood but not of the whole city. Below are some limitations to keep in mind while interpreting the analysis.

Data Quality and Completeness

- Limitation: The analysis is only as good as the data it's based on. Incomplete, inaccurate, or outdated data can lead to skewed results and incorrect conclusions.
- Guideline: Before starting the analysis, the CODs can make a pre-check to validate the data by trying to address missing values, duplicates, and outliers. It will be helpful to document and report any data quality issues and their potential impact on the analysis while sharing the results with others.

Bias and Representation

- Limitation: The data might be biassed based on factors such as reporting practices, socioeconomic demographics, and policing strategies. Underrepresented or marginalised groups might be disproportionately affected.
- Guideline: Be transparent about the potential biases in the data. When presenting results, consider providing context about the demographic composition of incidents to avoid misinterpretation.

Temporal and Spatial Factors

- Limitation: The period and geographical scope of the incident data influence the patterns observed. Trends might be influenced by seasonal variations or changes in law enforcement practices.
- Guideline: Clearly define and report the time frame and geographical boundaries of the analysis. The temporal and spatial context in visualisations should be used to help viewers understand the limitations of the data's scope.

Changing Policies and Practices

- Limitation: Changes in law enforcement policies, reporting protocols, or data collection methods can impact the analysis results over time.
- Guideline: It is recommended to keep track of such changes and consider their potential effects.

User Expertise

- Limitation: Different users of the analysis and visualisations might have varying levels of expertise in data interpretation.
- Guideline: Guide both non-police users and other analysts to ensure an appropriate and accurate understanding of the results.

Incident Neighbourhood Information

- Limitation: All incidents do not have the neighbourhood associated with them as the address column in the incidents data is not standardised and not all addresses (Street name and number) are present in the city's address directory.
- Guideline: Always use the updated address directory of the city and guide the users and other analysts to look at the incidents with no neighbourhood information. At the same time, encourage the compiling authorities to enter the data in a standardised way.

Incident District Information

- Limitation: Similar to the neighbourhood problem, all incidents do not have a district associated with them. Thus, the incident compiling authority column is used to extract the events of a district. Hence, some incidents in a different district might appear in the plots.
- Guideline: It is recommended to always use the analysis and plots/charts as indicative but not complete. An additional cleaning step can be added to ensure the address information is correct in the incident data and updated in the city's address directory.

Citizens' Survey

Social Desirability Bias

- Limitation: Respondents might provide socially desirable answers rather than their true feelings, affecting the accuracy of the results.
- Guideline: Account for the possibility of biassed responses and interpret the findings while considering the potential for respondents to understate or overstate their feelings.

Subjective Nature

- Limitation: The survey heavily relies on subjective perceptions of fear and insecurity, influenced by personal experiences and cultural factors.

- Guideline: Interpret the results with an understanding of the subjective nature of the data, considering that individual experiences and interpretations can vary.

Limited Context

- Limitation: The survey does not collect broader contextual information about respondents' experiences and their exposure to crime, potentially leading to a one-sided understanding.
- Guideline: Interpret the results while acknowledging the survey's limitations in capturing the entirety of respondents' experiences and perceptions of security.

Scale Interpretation

- Limitation: The 1-5 scale responses have different meanings for different types of questions and may vary in interpretation, leading to potential confusion about the magnitude of the answer.
- Guideline: Ensure a clear understanding of the scale's meaning and consider presenting results with the details of the scale wherever possible.

Longitudinal Analysis

- Limitation: The survey provides a snapshot and doesn't track changes over time by itself.
- Guideline: Conducting future surveys at regular intervals might help to monitor trends and assess the impact of any interventions made based on the current survey.

Sampling and Interaction Bias

- Limitation: The survey might be skewed due to its administration by police patrol officers/Local Coordinators/NGO Volunteers, potentially leading to biassed responses from individuals who have had interactions with these members in the past.
- Guideline: Recognize the potential bias and when interpreting results, analyse the demographic composition of respondents to understand potential biases and variations in responses across different groups.

Addressing Avoidance

- Limitation: The streets respondents mention as frequently avoided might be influenced by subjective perceptions and not necessarily indicative of actual crime rates.

- Guideline: Pay attention to avoidance patterns for potential insights into perceived high-risk areas, but consider combining this with objective crime data for a more complete picture.

Beneficial Patrol Locations

- Limitation: Respondents' suggestions for increased police patrols might reflect perceived risks rather than actual crime hotspots.
- Guideline: Use the patrol location suggestions as a starting point for resource allocation decisions.

Respondents

- Limitation: The respondents to the second part of the survey are those visiting the district municipal centres and there is a possibility of a certain category of people visiting the centres during certain periods of time based on seasonal and local factors.
- Guideline: Provide training to the Local coordinators who will conduct the survey to intentionally approach a diverse set of respondents and interpret the results together with available demographic information.

Disorder Problems

- Limitation: Not all problems mentioned in question are relevant for every neighbourhood and respondents fear such non-relevant problems could arise from perception rather than actual feelings.
- Guideline: Interpret the results with an understanding of the subjective nature of the problems in the neighbourhood of consideration.

Risk of Harm and Residents' Cohesion

- Limitation: The opinions on neighbours or recall of incidents are sometimes dependent on recent incidents and respondents cannot provide detailed context due to the nature of the Survey.
- Guideline: Account for the possibility of recent influences in responses by paying attention to sudden spikes or extreme opinions.

Meeting the stated design requirements

Core Functionality

1. The Riga tool will involve the citizens' perspectives on the provision of policing services in Riga by collecting their views through a three-layered survey.

   a. The Riga tool will aid in ad-hoc decision-making by running twice a year (for four weeks each time) to capture potential seasonal and other social changes.

   b. Out of the four weeks, the feedback from citizens is collected for 2 weeks and each interview administered by one surveyor will not last longer than 10 minutes.

2. The data analysis and visualisation (graphs and charts) summarising the recently logged crime records and aggregating citizens' feedback on their perception of harm, trust in police and feelings of insecurity of the Riga Tool will assist the Chief of the Department of the district and the Strategic Planning Specialist at the Municipal Police headquarters in enabling a new process for the 'Safety assessment' of districts.

3. Through the biannual incidents records analysis and feedback from residents of each district, the Riga tool will support decision-making by the Strategic Planning Office and Territorial Police Department (at the district level) of the Municipal Police, regarding

   a. Planning and updating policing tactics at the district-level

   b. Planning, updating and improving policing activities in districts, such as

      i. Community policing meetings with citizens

      ii. Educational events for children and adults

      iii. Different types of patrolling (i.e. on foot; two to four-wheelers; and drones)

4. The Riga tool defined the protocol and guidelines for the process of data collection; data analysis; results reporting and communication; and the update/revision of the data collection instrument.

5. The Riga tool draws on a validated model of citizens' feelings of insecurity based on Gray et al. 2011 and Reid et al. 2020.

Data Collection and Management

6. The Riga tool supports the planning of policing strategies through the incorporation and comparison of the:

   a. Police Incident Records: Crime incident numbers, Type of crime incidents, Time and location of the incident, the response time of the police, escalation/resolution by the patrol officers.

b. Citizens' feedback: The three-part survey about perception of harm, trust in police and feelings of insecurity.

7. The Riga tool will enable the understanding of:

   a. Trends and tendencies in different incident types through the analysis of police incidents records

   b. Citizens' priorities with regard to security and policing through the citizen survey.

   c. Police performance about reported incidents/problems using the reaction time and incident resolution rate obtained by analysing the police incidents records.

   d. The impact of police action on incidents/problems through the differentials in the incidents records of the previous year.

8. The Riga tool enables an improved understanding of:

   a. feelings of insecurity among the citizens through the survey by the patrolling officers.

   b. Perceived risk of victimisation, personal harm and trust in police among the district residents through the survey by the NGO volunteers.

   c. Social and physical disorder and cohesion among the residents through the survey by the coordinators of district municipal centres.

Experience Inherent in Solution

9. The surveying by the patrolling officers along with the coordinators and the volunteers keeps the police in the touch with the citizens through both direct and indirect communication

10. The varied experiences of the citizens are gathered by administering the surveys separately for each district and collecting the responses at different parts of the day.

11. The online forms to collect the survey responses and the pre-designed program to process them at a single click provide a hassle-free experience in processing and summarising information provided by citizens.

Support for Collaboration

12. The support and cooperation between the local police, social / community services, NGOs and citizens will be enabled through the execution of the three-part citizen survey.

13. The three-part citizen survey of the Riga tool involves the local police, community services and NGOs in the activity of collecting different components of citizens' feedback.

14. Regular updates to policing tactics (patrolling times and locations) will help in improving the relations and trust between citizens and police.

15. The mechanism to share the results from the chief of the department(s) to the strategic planning specialist at HQ will help in sharing the feedback outside the domain of the municipal police with other partners of the city council.

Impact of Solution

16. The standard format of incidents records, the online survey mechanism that collects the responses into another standard Excel format, the predefined program to process these data without human intervention and the process manuals providing guidelines for each stage of the tool make it sustainable for the long term.

17. The aim is that the analysis and comparison of incident records and the citizens' perspectives contribute to evidence-based policy changes in policing tactics.

USAL's understanding of the Riga Tool

IDIAP is creating a web application (dashboard?) for Riga, which will be used by six or seven Chiefs of the Department (CoDs).

The Riga Tool will provide the CoD with three types of information:

- Pre-cleaned incident data collected from multiple sources (including citizen reporting, the app, police officer reports)
- Citizens' feelings of insecurity from the new survey
- Citizens' experience of harm and disorder — also from the new survey

The Chief of Departments to access information from their computers when updating police patrolling strategy; and when meeting NGOs. In addition, CoDs will be able to create reports (PDF) to share results with key stakeholders and the media.

Data on incidents is already collected and analysed. The data on citizens' feelings and experiences is being collected from a new survey developed specifically for Riga. The process of collecting and analysing citizen data involves three steps:

1. Identify volunteers and patrol officers to conduct survey
2. Training for those conducting the survey
3. Conducting the survey (using tablet devices)
4. Share results with CODs / other stakeholders

It is anticipated that this process will take four weeks, and will run from…[Timeline]

See Process maps produced by IDIAP

Further information relevant to the Design Specification has been provided by IDIAP. USAL would like to confirm that this more detailed information is based on having developed a mock up, prototyping and speaking with end-users.

The Community of Interest is being held on…

The following prototyping activities are planned: a) IDIAP will share the citizen survey questions with NGOs.