PRAISE-HK

BROCHURE

NOVEMBER 2021

WHAT IS PRAISE-HK

A game-changer in air pollution exposure management

Air pollution is a major environmental concern in Hong Kong. Yet many of us accept it as part of city living and believe that there is not much we, as members of the general public, can do about it.

PRAISE-HK is about to change this mindset.

A mobile app that places real-time air quality information in the palm of your hand
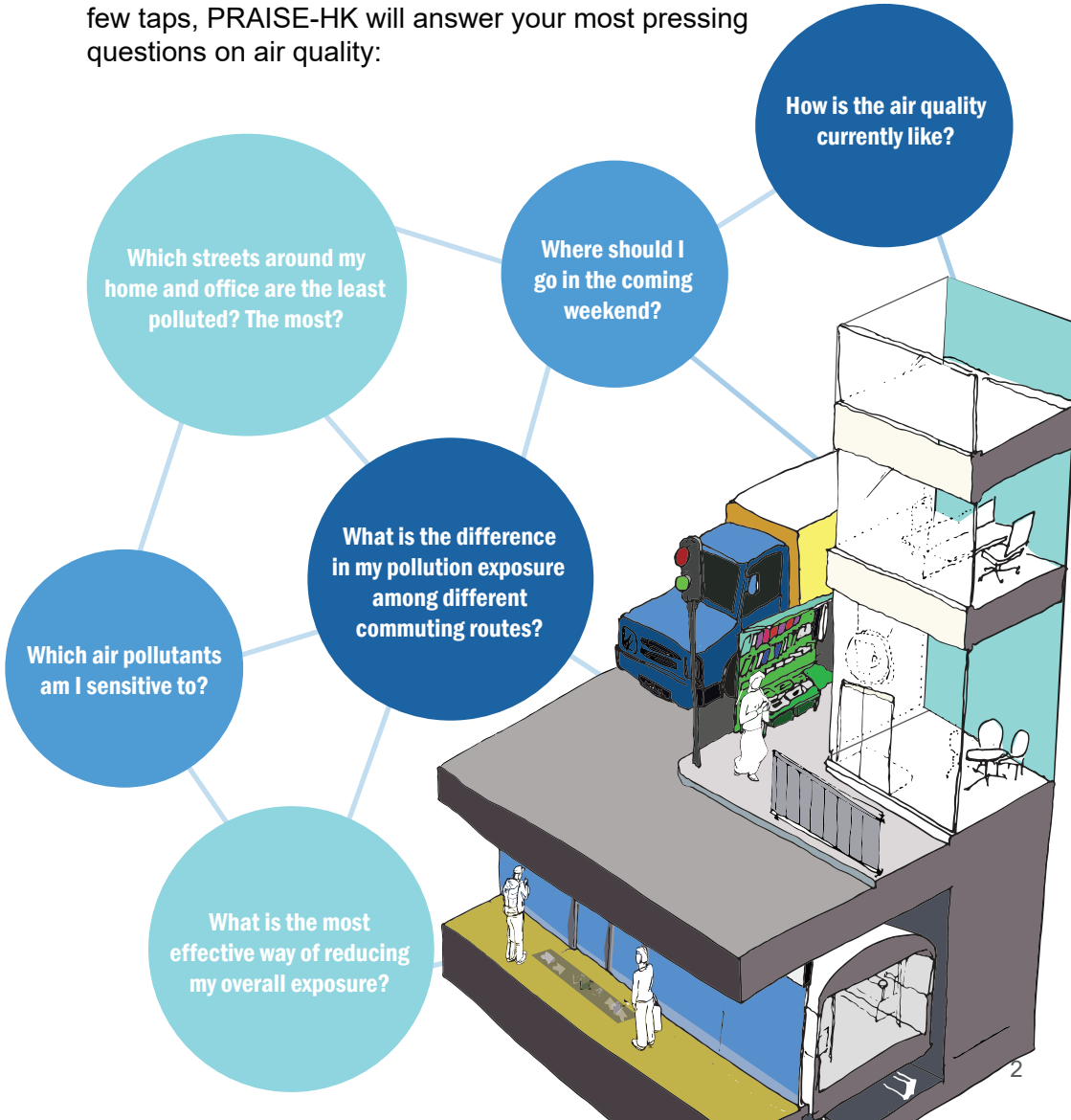
Personalised Real-Time Air Quality Informatics System for Exposure – Hong Kong (PRAISE-HK) is a project with an ambitious goal: empower people to manage and reduce their exposure to air pollutants.

As a smart city project, PRAISE-HK has been developing a mobile app that allows you to access real-time, geo-localised air quality information anytime, anywhere. Not to mention that in the later app versions, it will evaluate your

air pollution exposure and provide personalised health advices, helping you make informed health decision in your daily lives.

Questions-and-answers in a tap-and-go

Powered by the state-of-the-art technologies, PRAISE-HK provides real-time air quality forecast and corresponding health risk information down to street level. Within a few taps, PRAISE-HK will answer your most pressing questions on air quality:
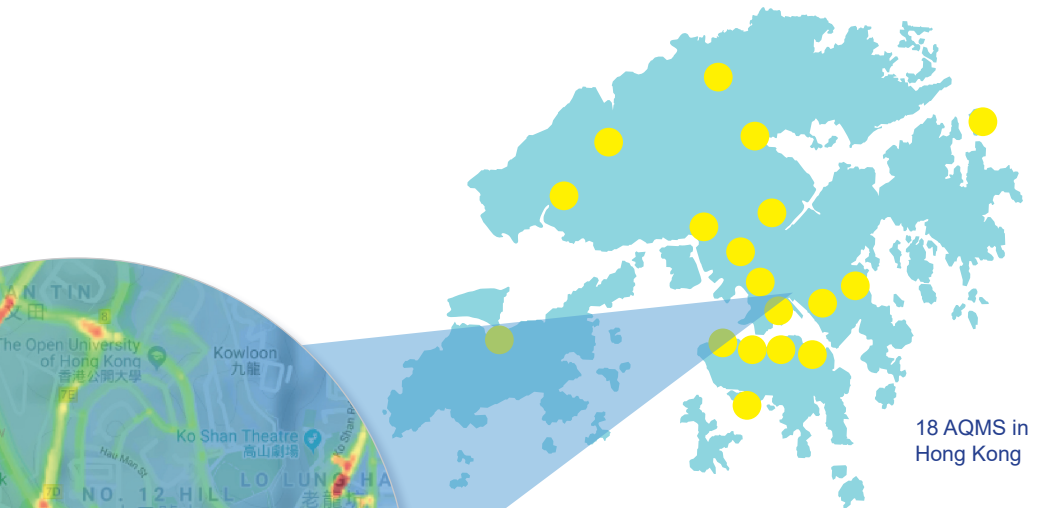
How is the air quality currently like?

Which streets around my home and office are the least polluted? The most?

Where should I go in the coming weekend?

What is the difference in my pollution exposure among different commuting routes?

Which air pollutants am I sensitive to?

What is the most effective way of reducing my overall exposure?

WHY

PRAISE-HK

How we have been informed air quality information

Hong Kong's official air quality monitoring network - comprising of 13 general and 3 roadside air quality monitoring stations (AQMS) - is designed to depict the average air quality over various areas in Hong Kong.

While this is helpful to broadly inform the community on air quality, more detailed information is needed for us to make healthier and more informed choices in our daily routines.

18 AQMS in Hong Kong

Street-level details in PRAISE-HK

Air quality varies between streets

Air quality can vary significantly from one street to another in dense cities like Hong Kong due to different factors including traffic, urban dispersion and ventilation.

PRAISE-HK mobile app takes this into account. It brings users current and forecasted air quality as well as associated health risks on a street-by-street level, assisting you to plan your activities and to reduce air pollution exposure.

Launched in
June 2019

PRAISE-HK
MILESTONES

PHASE 1
Street-level air quality spatial map

Zoom in on a map to check current and forecasted outdoor air quality and associated health risks down to street level. Use this guide to plan your activities wisely reducing your exposure to air pollution.

iOS   Android

FEATURES	PHASE 1	PHASE 2	PHASE 3
Current & forecast air qualiy	⭐	⭐	⭐
Street-level air quality map	⭐	⭐	⭐
Outdoor air quality	⭐	⭐	⭐
Location air quality notification	⭐	⭐	⭐
Indoor air quality (from outdoor environment)		⭐	⭐
Personal symptoms report		⭐	⭐
Cleaner air route suggestion		⭐	⭐
Daily pollution exposure review		⭐	⭐
Personalised health alerts & advice			⭐

PHASE 2
Pollution exposure health-risk review

This upgrade will be able to evaluate your total air pollution exposure from your travel history. It will also determine which routes are cleanest, helping users make healthier and more informed choices in their everyday lives.

GET IT NOW!
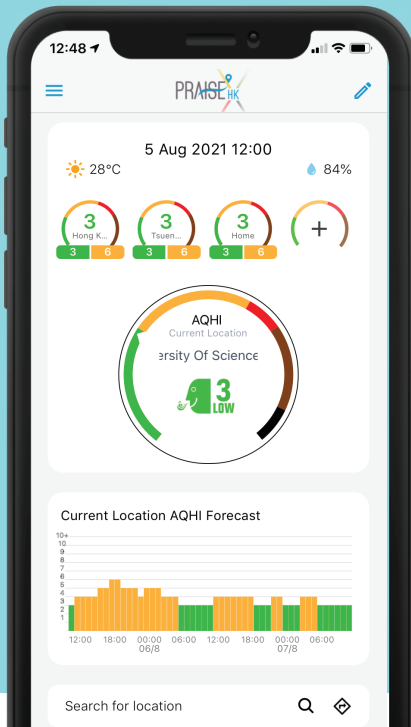
iOS   Android

PHASE 3
Personal air quality and health alert

This upgrade will include alerts and recommendations tailored to individual health conditions and daily habits.
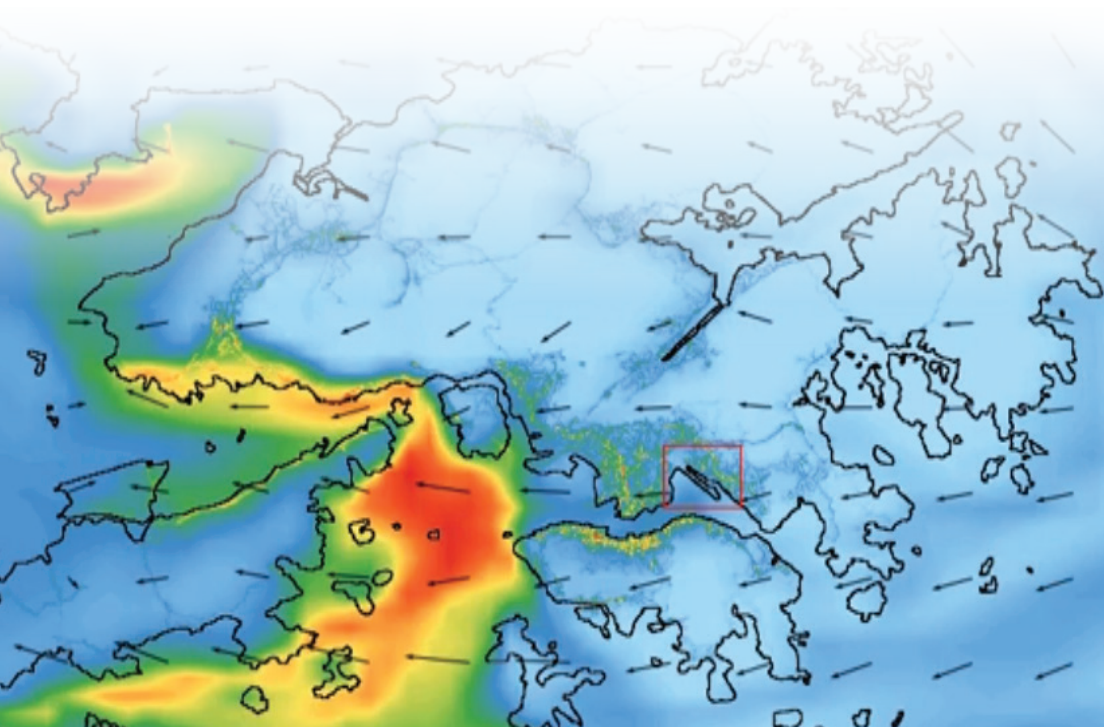

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PRAISE HK

5 Aug 2021 12:00

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AQHI
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Current Location AQHI Forecast

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12:00 18:00 00:00 06:00 12:00 18:00 00:00 06:00
              06/8   07/8

Search for location   🔍 ◈

KEY FEATURES

1 Hong Kong Street-Level Air Pollution Map

2 Current and 48-hours Forecast

3 Customised Bookmark at a Glance

4 Personal Air Pollution Exposure Summary

5 Suggestions for Cleaner Routes

COMPONENTS OF PRAISE-HK

With layers of data and state-of-the-art technologies such as artificial intelligence (AI), sensor technologies, air quality modelling systems and exposure sciences, PRAISE-HK system visualises the spatial distribution of air pollutants and provides reliable real-time and up-to-48-hour forecast of air quality to you.

ALGORITHM

Understand how PRAISE-HK's sophisticated algorithm brings the high-resolution air quality map to us.

4 Real-time Variation

Driven by AI and big data

3 Local Urban Morphology & Traffic Statistic

Powered by ADMS-Urban modelling system and MATsim (traffic) model
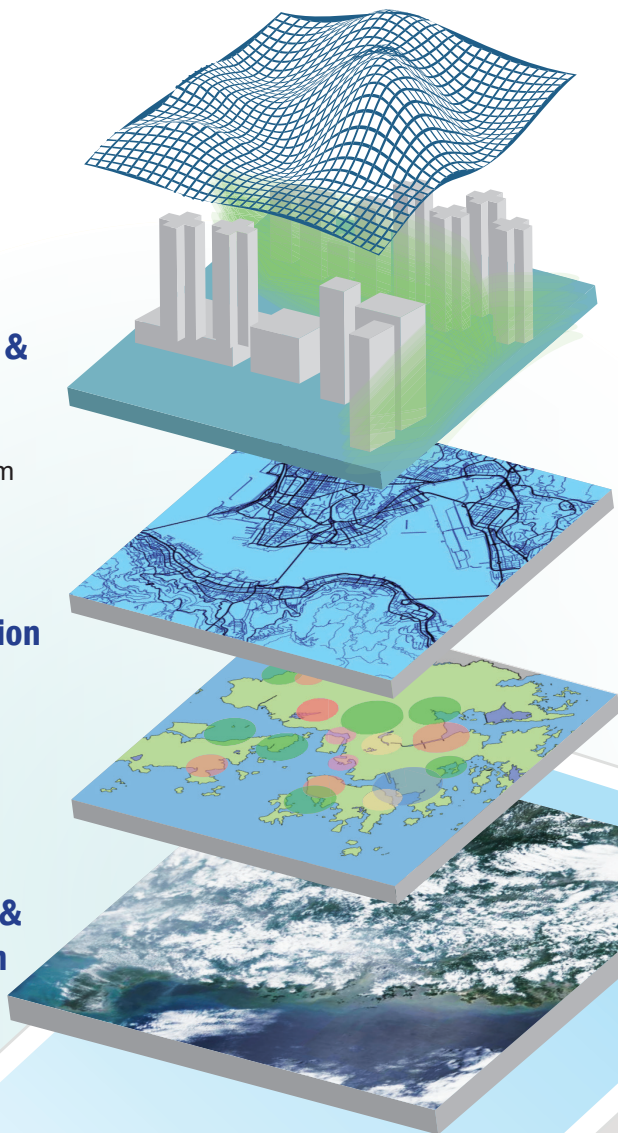
2 Local Emission Information

E.g. Ship emissions, traffic emissions and power plant emissions

1 Regional Emission Data & Meterological Projection

Powered by the coupled WRF-CMAQ photo-chemical model

GET INVOLVED

PRAISE-HK project is led by the Hong Kong University of Science and Technology (HKUST) Institute for the Environment.

PRAISE-HK is funded by HSBC 150th Anniversary Programme, and is supported by the government, medical professionals and environmental NGOs:

Government bodies:
- Environment Bureau, HKSAR Government
- Energizing Kowloon East Office

Social Service Sector:
- Hong Kong Red Cross

Medical professionals:
- Hong Kong Institute of Allergy
- The Hong Kong Asthma Society
- Hong Kong Allergy Association

Think-tank, association, NGOs:
- Business Environment Council
- Clean Air Network
- Civic Exchange
- Friends of the Earth
- The Conservancy Association

JOIN US

Your engagement will benefit our work and make a difference in Hong Kong.

- Subscribe to the PRAISE-HK Newsletter
- Participate in the user UI/UX workshops
- Share your app user experience with us
- Participate in our school activities
- Co-host environmental education events
- Co-host business briefings

Contact us: praise@ust.hk

TOGETHER,
WE SHAPE A SMARTER
AND HEALTHIER CITY

PRAISE HK

Empower the Public
with Personalised
Air Quality Information

Institute for the Environment
**The Hong Kong Unvieristy of
Science and Technology**

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