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Extreme-scale Urban Mobility  
Data Analytics as a Service

# Smart City Ethics

An ethical case study of Scheveningen The Hague

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- » **Case Introduction**
- » **Crowd Safety Manager**
- » **Structured Ethical Process (“Ethical Table”)**
- » **Result & lessons learned**

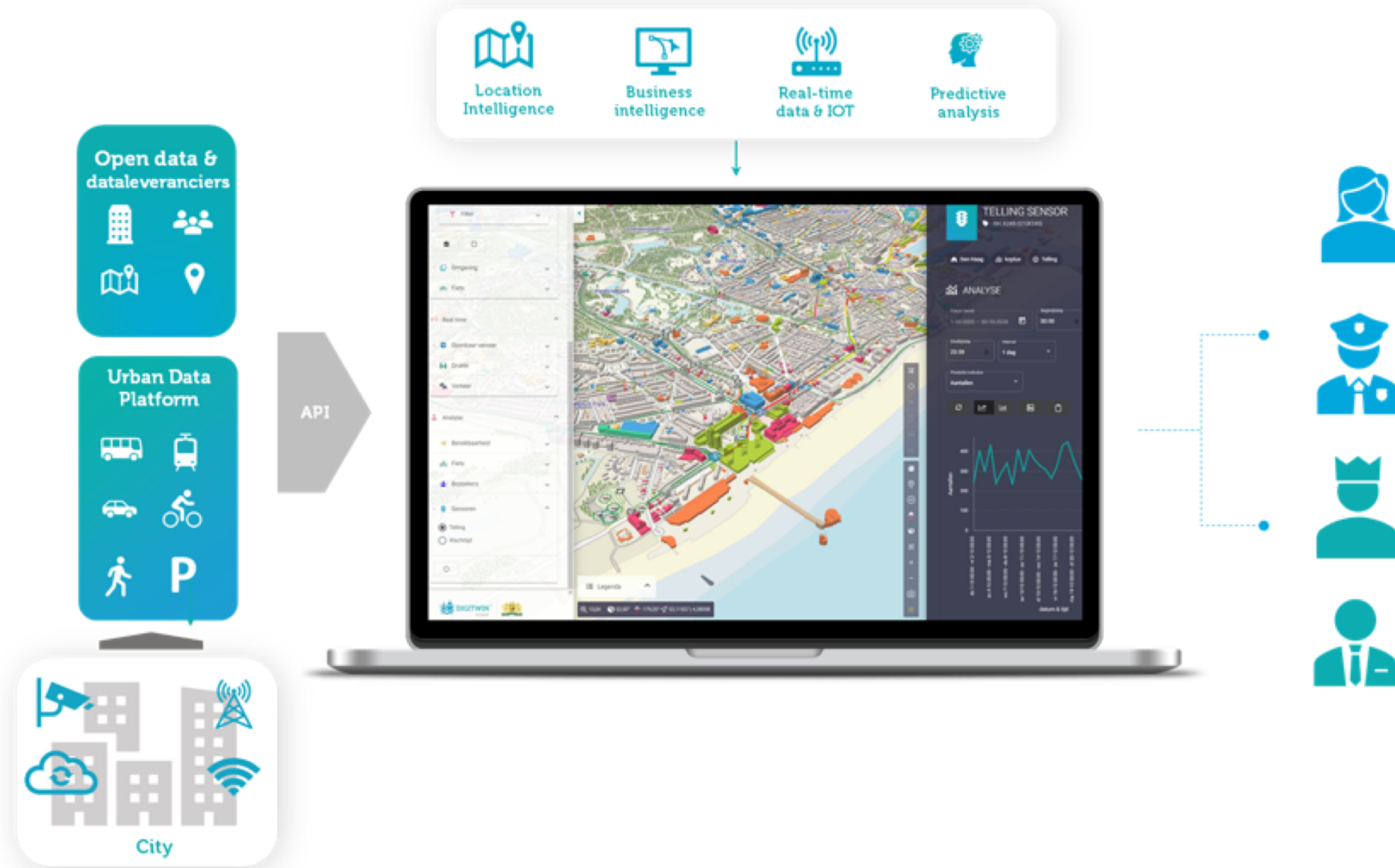




## Scheveningen Beach Area

- 10 million visitors per year
- Daily visitors, (foreign tourists) inhabitants & locals
- Events, shopping, relaxed, sports
- Risk of overcrowding and traffic jams
- More and more incident reports

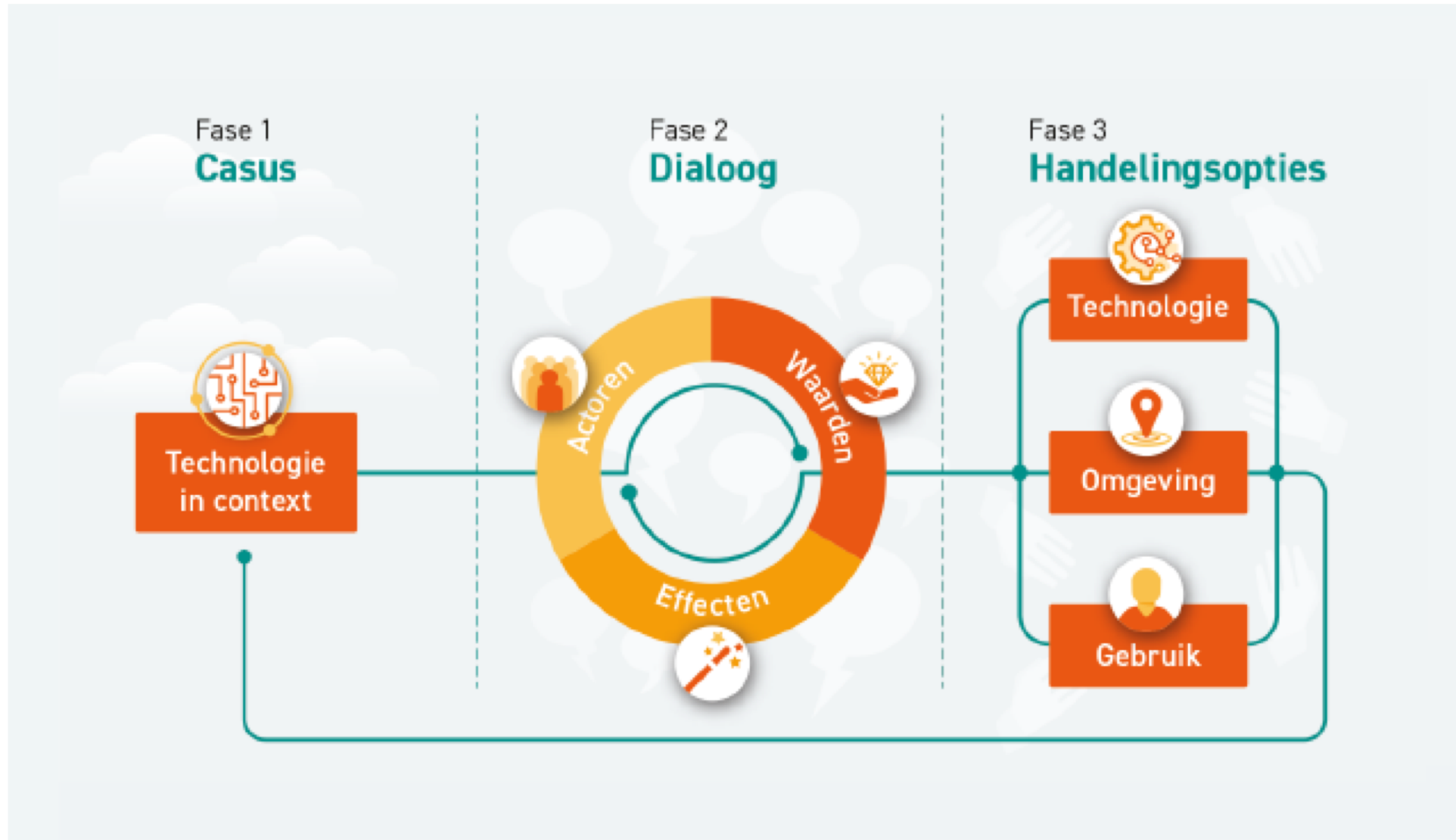








# Organization of Ethical Table based on “guidance ethics”



- Municipality
- Police
- APCOA/car parks
- Sports clubs
- Traffic controllers
- Private data owners
- Beach stadium
- Environmental Clubs
- Event organizers
- Visitors
- Property Owners
- Hotels
- Residents
- Youth workers
- Safety region (e.g. rescue brigade)
- Public transport services
- Environmental service
- Neighbourhood intervention teams
- Hospitality Hosts
- Theatres
- Specific visitor target groups (windsurfers, families, rappers, etc.)

## Positive effects

- 🌀 Datadriven decision making
- 🌀 Early insight into possible public order problems
- 🌀 have all the information at a glance (COP)
- 🌀 Controlling mobility
- 🌀 Being able to respond appropriately
- 🌀 The controllers are also connected immediately
- 🌀 Direct-acting
- 🌀 Being able to scale up public transport
- 🌀 Better communication to the public
- 🌀 Preventing repression
- 🌀 More efficient collaboration
- 🌀 More intervention opportunities

## Negative effects

- 🌀 Customer-unfriendly
- 🌀 Missing the risk (inappropriate interventions)
- 🌀 Technology becomes more decision-maker instead of people
- 🌀 Poor image of Scheveningen
- 🌀 Big brother effect
- 🌀 Pressure to intervene
- 🌀 Pointing fingers at each other with responsibilities
- 🌀 Having to justify more
- 🌀 Freedom of visitors must be restricted
- 🌀 Clashing interests (entrepreneurs-residents-visitors)
- 🌀 • Withdrawal of digital partners



Knowledge -- **Safety** -- Cooperation Viability --  
**Hospitality** -- Customer service -- **Livability** --  
Proportionality -- Mobility Ease of use --- Care --  
Accessibility Autonomy -- Freedom of decision/choice --  
**Effectiveness** -- Privacy Effectiveness -- Transparency --  
Independence System -- Security -- Recreation

## Technology

- ☞ Making data anonymous
- ☞ To make data workable, data must be recent (real time)
- ☞ Responsive technology: being able to react quickly
- ☞ Possibility of use on smartphone (app)
- ☞ Transparent (no black box) - > give users and citizens an account so they can look at the data afterwards
- ☞ Separating dates and norms (what is too busy?)
- ☞ Historical data -> privacy (setting limits on how long data is stored)
- ☞ Interaction between standards and actual data/action (real time)
- ☞ Safe emergency routes
- ☞ Labeling of the data and subsequent actions
- ☞ Prioritizing the possible options in the tool > managing them
- ☞ Include the chosen values (safety, quality of life and hospitality) in the system and also link them to interventions
- ☞ Giving more parties (entrepreneurs) access to the system so that they can also communicate and the spread is promoted
- ☞ Allowing entrepreneurs to use data to respond to diversification, e.g. through pricing
- ☞ "Italian job" -> the system to deploy traffic measures by linking them to traffic lights and matrix signs.
- ☞ Link interventions to this, such as free public transport
- ☞ Cybersecurity (non-hackable and non-traceable)
- ☞ Reliable meta (AI)
- ☞ Evaluate functionality, effects, etc.

## Environment

- ☞ Park & Beach packages
- ☞ Expand
- ☞ Traffic management
- ☞ Promote/facilitate shared mobility
- ☞ Customer journey
- ☞ Distribution (also on the beach and boulevard)
- ☞ Smart information boards
- ☞ Access pass for residents and certain visitors -> They can enter the area in the usual way, others must come in an alternative way
- ☞ Think of Scheveningen as an event
- ☞ Own channel to communicate
- ☞ Sending push notifications to (potential) visitors
- ☞ Decision structure > Who is in charge?

## People

- ☞ Laws and regulations (such as the APV) to reduce nuisance (nitrous oxide use, street harassment) and link area bans to this
- ☞ Hospitable park & beach reception (balloons for children, etc.)
- ☞ Early targeting of parking alternatives (e.g. when getting into the car)
- ☞ Staggering visits by means of rewards (e.g. "happy hour" for families on a certain part of the day)
- ☞ Transparent communication (distinguishing between one-time and returning visitors)
- ☞ Education/training

- » Structure approach to deal with complex and subjective topic
- » Respect of all participants
- » Report to be shared
- » Practical advice on improvement system





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