



Wisenture THE BEAST

How SAP Leonardo is
empowering animal
wellbeing

accenture technology





BIOLOGICAL INSIGHT



Biological profile with health indicators

BIO METRICS



Bio measurements (bloodpressure/heartrate) & GPS location

CUSTOMER EXPERIENCE



Interpret data, display data, user friendly, interactive

Now

.... 100 years



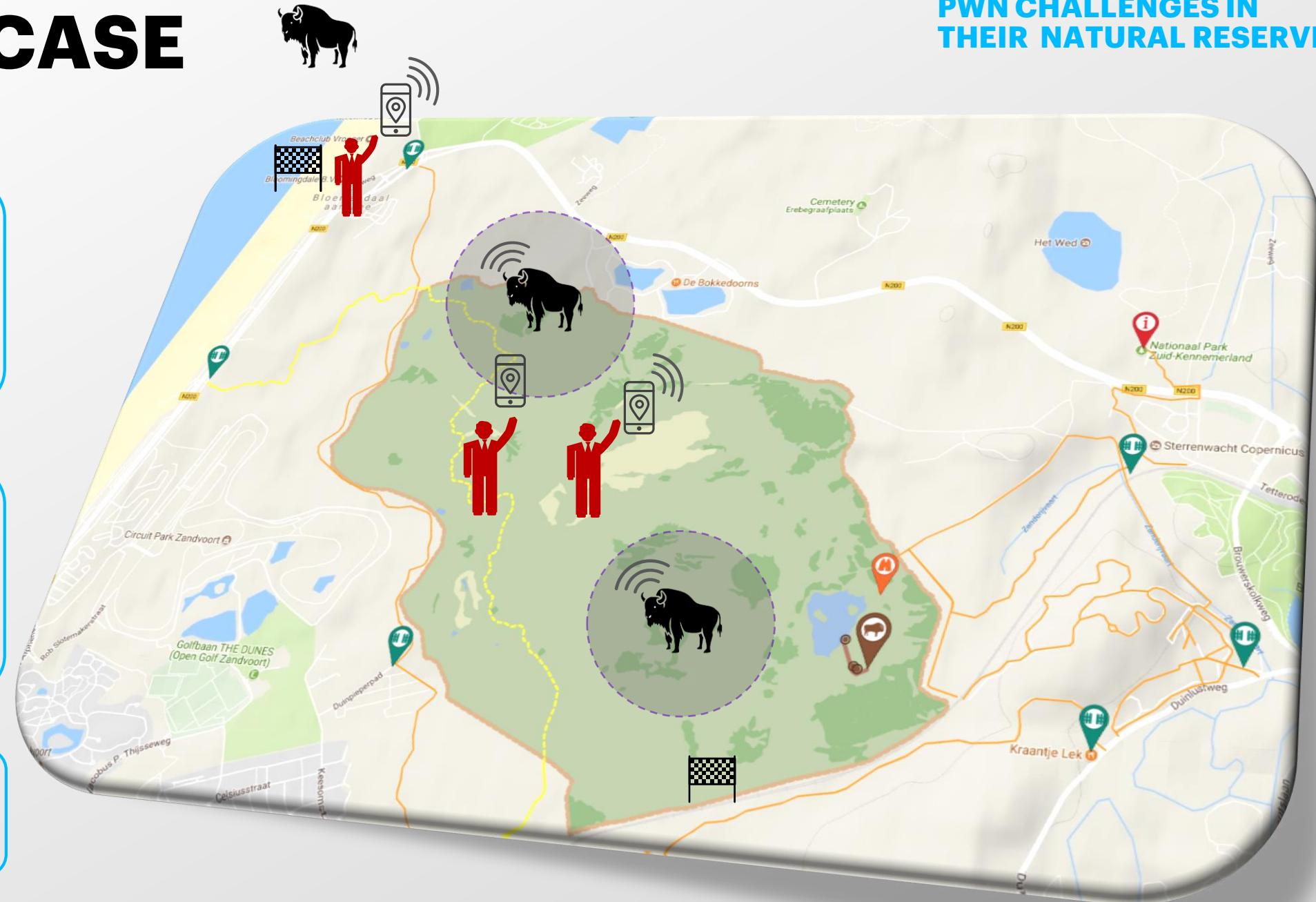
"SUSTAINABLE ENVIRONMENT FOR NOW AND IN THE FUTURE"

NOORDHOLLANDS DUINRESERVAAT (NHD)

NO BISONS

NATIONAAL PARK ZUID KENNEMERLAND (NPZK)

~ 15.000 visitors
per year





DEMO
UI5 APP &
SAP
LEONARDO

[LINK](#)

THE TECHNOLOGY BEHIND IT



IOT Devices



IOT SENSOR

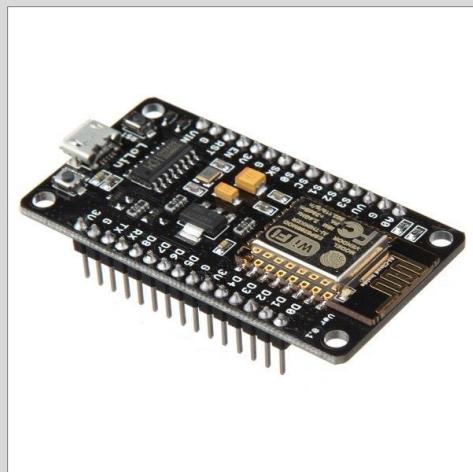
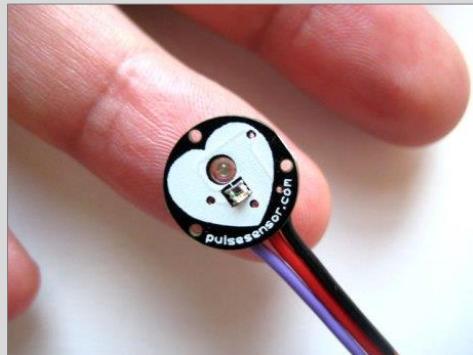
Heartbeat sensor Arduino

IOT MICRO CONTROLLER

Node MCU Lolin

IOT GPS

Android App on mobile



At about the beginning of every heartbeat,
report the heart rate and inter-beat-interval.

```
* /  
if (pulseSensor.sawStartOfBeat()) {  
  
// Set payload with your parameters - you can include more than the 2 s  
String sPayload = "{\"mode\":\"sync\", \"messageType\":\"" + sMessageType  
// Connect to SAP cloud  
if (client.connect(cHost, iHttpsPort)) {  
  
// Using HTTP/1.0 to send information  
Serial.println("Sending request");  
client.print(String("POST ") + sUrl + " HTTP/1.0\r\n" +  
    "Host: " + cHost + "\r\n" +  
    "Content-Type: application/json; charset=utf-8\r\n" +  
    "Authorization: Bearer " + sAuthToken + "\r\n" +  
    "Content-Length: " + sPayload.length() + "\r\n\r\n" +  
    sPayload + "\r\n\r\n");  
  
// Set success message in the serial log  
Serial.println("Message sent");
```

THE TECHNOLOGY BEHIND IT



The SAP Cloud Platform Cockpit interface. On the left sidebar, under 'Services', 'Internet of Things' is selected. The main area shows the 'Internet of Things' service with the status 'Enabled'. Below it, there's a brief description: 'Develop, customize, and operate IoT business applications in the cloud.' At the bottom, there are two smaller sections: 'Device Management' (listing 9 message types, 9 device types, and 10 devices) and 'Message Management' (with buttons for 'Update the Message Management...' and 'Send and view messages, or perform other...').

Back-end
SAP Cloud Platform

IOT MMS
Message Management Service

ODATA SERVICE
Automatic generated by IOT MMS

SAP HANA DATABASE
SAP HANA modeler - Web IDE / SAP HANA studio

A central box labeled 'Back-end' contains the SAP logo and 'SAP Cloud Platform'. Below it, three components are connected by arrows: 'IOT MMS' (Message Management Service), 'ODATA SERVICE' (Automatic generated by IOT MMS), and 'SAP HANA DATABASE' (SAP HANA modeler - Web IDE / SAP HANA studio). A 'Push' arrow points from IOT MMS to ODATA SERVICE, and a 'Pull' arrow points from ODATA SERVICE to SAP HANA DATABASE.

The SAP HANA Web-based Development Workbench Editor. The top navigation bar shows 'Message Management Service Cockpit' and the user 'harmen.werkenberg@accenture.com'. The main area displays the 'Content' tree and the 'service.xsodata' editor. The tree includes nodes like 'acn', 'Netherlands_Utrecht_AccentureTechnologySAP', 'anav', 'beacon', 'dev', 'DVERWEU', 'fiorisissues', 'HANACOE', 'manu', 'overseer', 'security', 'system-local', 'UtilitiesDemo', 'UtrechtAppFactory', 'Wisenture', and 'wissenture'. The 'service.xsodata' editor shows a semantic model with entities like 'Semantics', 'Star Join', 'Projection_1', 'TIME_T', 'TIME_V', and 'EXCURSIE'.

THE TECHNOLOGY BEHIND IT



The screenshot shows the SAP Web IDE interface. On the left, a sidebar lists project files: App.view.xml, Detail.controller.js, Detail.view.xml (selected), FileRemover.fragment.xml, FileUploader.fragment.xml, Master.controller.js, Master.view.xml, NotFound.view.xml, PhotosActionSheet.fragment.xml, .project.json, Component.js, index.html, index.js, logon.js, MyRouter.js, and neo-app.json. The main area displays two code snippets. The top snippet is from a chart definition file (Detail.view.xml) showing XML for a line chart with dimensions and measures. The bottom snippet is from a details page (Detail.view.xml) showing XML for a page, HBox, VBox, and List controls.

```
<IconTabFilter id="iconTabBarFilter2" icon="sap-icon://line-chart" tooltip="Stress" press="onStress">
  <layout:FixFlex id="chartFixFlex2" minFlexSize="500">
    <layout:fixContent>
      <viz:Line id="tempLineChart1" visible="true" width="100%">
        <viz:dataset>
          <viz:data:flattenedDataset data="{StressLevel}">
            <viz:data:dimensions>
              <viz:data:DimensionDefinition name="Date" axis="1" value="{path:'StressLevel>datum', formatter:'DateFormatter.status'}" dataType="date"/>
              <viz:data:DimensionDefinition name="Bezoekers" axis="1" value="{StressLevel>aantal}"/>
            </viz:data:dimensions>
            <viz:data:measures>
              <viz:data:MeasureDefinition name="Stress" value="{StressLevel>stress}"/>
              <viz:data:MeasureDefinition name="Bezoekers" value="{StressLevel>aantal}"/>
            </viz:data:measures>
          </viz:data:flattenedDataset>
        </viz:dataset>
      </viz:Line>
    </layout:fixContent>
  </layout:FixFlex>
</IconTabFilter>

<App.view.xml>
<Detail.controller.js>
<Detail.view.xml selected>
<FileRemover.fragment.xml>
<FileUploader.fragment.xml>
<Master.controller.js>
<Master.view.xml>
<NotFound.view.xml>
<PhotosActionSheet.fragment.xml>
<.project.json>
<Component.js>
<index.html>
<index.js>
<logon.js>
<MyRouter.js>
<neo-app.json>
```

```
<Page id="detailsPage" showHeader="false" class="customBottom sapUiContentPadding" visible="true">
  <HBox width="100%" height="100%">
    <VBox id="detailsDistributor" height="100%" width="40%">
      <Label text="Hartslag Wisent 1"/>
      <List id="idList" items="{heartData}"/>
      <StandardListItem title="{heartData>C_HEARTRATE}" icon="sap-icon://electrocardiogram"/>
    </VBox>
    <Grid id="detailFragment" defaultSpan="I12_M12_S12">
      <ObjectHeader>
        <NavBack text="Terug naar pagina" selectPage="detailsPage" type="Text" />
        <content>
          <ObjectHeader>
            <title>(ClaimedsumAmount)</title>
            <number>{ClaimedsumAmount}</number>
            <numberUnit>{ClaimedsumCurrencyCode}</numberUnit>
            <statuses>
              <ObjectStatus id="oStatusId" state="{ path: 'Status', value: 'OK' }" />
            </statuses>
          </ObjectHeader>
        </content>
      </ObjectHeader>
    </Grid>
  </HBox>
</Page>
```

Front-end



SAP Fiori HTML 5

WEB IDE

Develop SAP Fiori and SAPUI5 apps

NATIVE XS ODATA SERVICE

Native service to read analytic calculation views from the Hana DB.

THE ADDED VALUE FOR PWN



LOCATION = VALUE

Realtime Bio Info



**REALTIME BISON
BIO PROFILE ON
EACH DEVICE FOR
THE FOREST
RANGERS**

- Heartbeat
- Temperature
- Bloodpressure
- Stresslevel
- Medication
- Rumination
- Track health

Customer info



**REALTIME PARK
VISITORS INFO**

- GPS location
- Visitor info
- Data-analytics
- Predictive models

Social / welfare



STEER ON DATA

- Push relevant (close-by)
- Gather recreational needs
- Manage visitors
- PWN image/brand
- High quality park
- Inform ecologists
- Inform / help other Park Operators



THE BEAST SUMMARY

PWN CASE

Biological insight in animal wellbeing
Transform data into actual value
Improve customer experience with NEW Technology

DEMO

Combination of SAP UI5 and ANDROID APPS

THE TECHNOLOGY BEHIND IT

IOT Sensor and Micro controller
SAP Cloud Platform - SAP Leonardo
SAP UI5 and ANDROID

ADDED VALUE FOR PWN

Heartbeat, Stress level, GPS location, Visitor Info
Data-analytics and Steer on Data.

CONTACT INFO

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