According to a 2013 publication from the US Bureau of Labor Statistics, “Musculoskeletal disorders, (MSDs), commonly known as ergonomic injuries, accounted for 34 percent of all workspace injuries”. Back and neck pain and problems are the most common consequences of bad sitting posture at work and account for a high portion of health costs.

With connected chairs, IOT makes it possible to drastically reduce MSDs by optimizing ergonomics at work with clear benefits: improved long term health for the worker, and higher cost savings for both the employer and the government.

Additionally, an IOT solution would also provide valuable insights to the employer and employee in terms of workspace management, such as where to find an available spot in a large open space? Or which rooms are almost never used and represent a shortfall which could potentially be monetized in other ways?
Persona Template – filled out

Patrick Dough  
The IT Analyst

“I am very thorough in my own work and like to go to the bottom of things, even if it requires staying late at work. I am a workaholic”

About

• 42 years old, married with a ravishing wife and 2 lovely children
• Strong work ethics and believe that each person can make a difference
• I enjoy going on vacations with my little family
• Also do sports every week-end

Responsibilities

• I am responsible for collecting and analyzing sensitive data in order to make projections
• I am responsible for a side project to give better insight to the collected data

Main Goals

• Work more efficiently with my team for my side project. The office is big, it is sometimes difficult to find space, close to my team members.
• Be able to keep up with my growing children, and continuing to do outdoor activities as I grow older

Needs

• I need to be able to find a proper working desk in the open space where my team is
• I need to be instructed on how to avoid my back and neck pain at the end of the day
• I need to be reminded when I slip away from best sitting position and when to stand up because I tend to forget

Pain Points

• Especially when I have to work together with my team, it is sometimes difficult to align when, where to meet
• I sometimes feel back and neck pain, I think that this is due to the posture that I have on my chair. I know that I have to sit better, but I usually forget and then find myself laying backwards. Plus, I don’t know what’s the ideal position
Persona Template – filled out

Joseph Wright
The co-founder

“I want to give to my employees the best working environment, where they can fulfill their passion and at the same time work in the best interest of the company”

About
• 54 years old, co-owner and founder of SmartG consulting
• Looking to double the business in the next 5 years
• Want to provide my employees with the best working environment, at lowest costs

Responsibilities
• Executive role at SmartG
• Setting strategic direction of the company
• Deciding which projects we are investing in the coming years

Main Goals
• Double our business in the next 5 years
• Having an efficient workspace
• Having satisfied and cheerful employees

Needs
• I need people to work on client concerns
• Working at SmartG is time consuming. I need people to be happy at work, and enjoy what they do
• Some office rooms are not much used. In the coming 5 years, the business should double, but in the meantime I need a better utilization of these rooms

Pain Points
• Some employee are complaining of back and neck pain problems. I have already organized an ergonomics at work training but that is not sufficient.
• Half of our offices and seat are empty on Friday’s and Wednesday afternoon. How can we better manage these “assets”?
Point of View

As a **full-time working employee** I need a way to (1) quickly know where are the available seats and office rooms in the open space and (2) have a better posture on my seat, **so that** (a) I can immediately find the best spot close to my team and (b) avoid future back and neck problems arising from bad posture or long seating.

As an **employer** I need a way to receive insightful information on the use of my workplace (seats, desks, meeting rooms) **so that** I can increase the utilization of these available assets e.g. by sharing them with other entities when required.
### User Experience Journey Template – filled for the full-time employee

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>ACTIONS</th>
<th>ACTIONS</th>
<th>ACTIONS</th>
<th>ACTIONS</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter the office</td>
<td>Say hello</td>
<td>Look for available spots in the open space, close enough to my team</td>
<td>Find an available spot</td>
<td>Unpack</td>
<td>Start working</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MINDSET</th>
<th>MINDSET</th>
<th>MINDSET</th>
<th>MINDSET</th>
<th>MINDSET</th>
<th>MINDSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I have so many things to finish today, I'll be efficient and start with XYZ”</td>
<td>“I should not spend too much time talking”</td>
<td>“Almost all seats are taken today, I should have come earlier”</td>
<td>“Ah, finally… Unfortunately, I am not close enough to John”. I should have booked a meeting room</td>
<td>“Let’s get started”</td>
<td>“Finally, first things first”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEELING</th>
<th>FEELING</th>
<th>FEELING</th>
<th>FEELING</th>
<th>FEELING</th>
<th>FEELING</th>
</tr>
</thead>
<tbody>
<tr>
<td>😊</td>
<td>😊</td>
<td>😊</td>
<td>😊</td>
<td>😊</td>
<td>😊</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOUCH POINTS</th>
<th>TOUCH POINTS</th>
<th>TOUCH POINTS</th>
<th>TOUCH POINTS</th>
<th>TOUCH POINTS</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badge</td>
<td>People</td>
<td>Doors</td>
<td>Chair</td>
<td>Chair</td>
<td>PC</td>
</tr>
<tr>
<td>Elevator</td>
<td>Colleagues</td>
<td>Handles</td>
<td>Desk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doors</td>
<td></td>
<td></td>
<td></td>
<td>PC</td>
<td></td>
</tr>
</tbody>
</table>

© SAP SE or an SAP affiliate company. All rights reserved.
OFF-CH-BLACK
C NTD-CH-48CH

Active Connected

Hours sat
4.5 hours
Jul 17, 2017

Notifications (2)
- You have sat for more than 3 hours in a row
- Your posture adherence percentage is low

Actions (3)
- Stand up immediately, for at least 15 minutes
- Lower your seat 3 cm
- Move it forward by 15 degrees

Time sat vs standing time

Percentage adherence to the correct position

Office 360 management tool
3rd Floor, Building 8A
Parliament street, Brussels

Office manager: Ralph Johnson

Meeting room Brussels has a low utilization rate
In May, meeting room utilization has dropped
On Friday's, chairs have a low utilization rate
3 offices rooms are heavily used

Average use of meeting rooms

Meeting room utilization

Average duration of chair utilization