

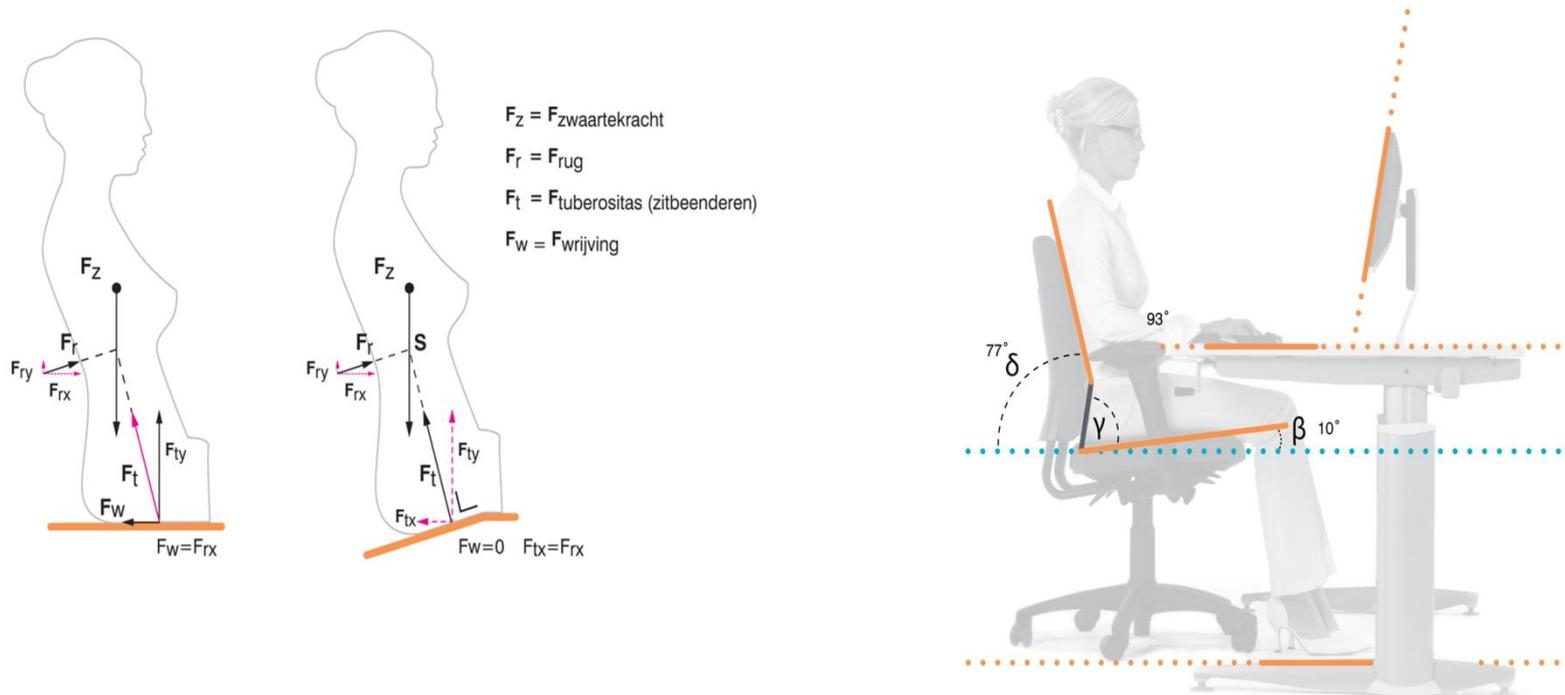


Better sitting – supporting breaks: Axia Smart Chair & Smart Active

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Biomechanics



Goossens RHM, Snijders CJ. Design criteria for the reduction of shear forces in beds and seats.
Journal of Biomechanics, 28, 225-230, 1995

Snijders CJ ea. 2004 : Clinical Biomechanics 19, p323-329

Dynamic sitting



- Low muscle tension
- No shear on seat
- Postural change
- Facilitating postures in different tasks

More dynamics in chairs?

Ergonomic study of specific dynamic office chairs

BGIA – Report 5/2008: Ellegast et al 2008,



- No differences in muscle activity within tasks
- No differences in (general) postures
- Only changing tasks is influencing muscle activity and posture significantly
- Acceptance by user differs (comfort, biomechanic support, design)

Not too long



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I need a
break !

Actual Use ?

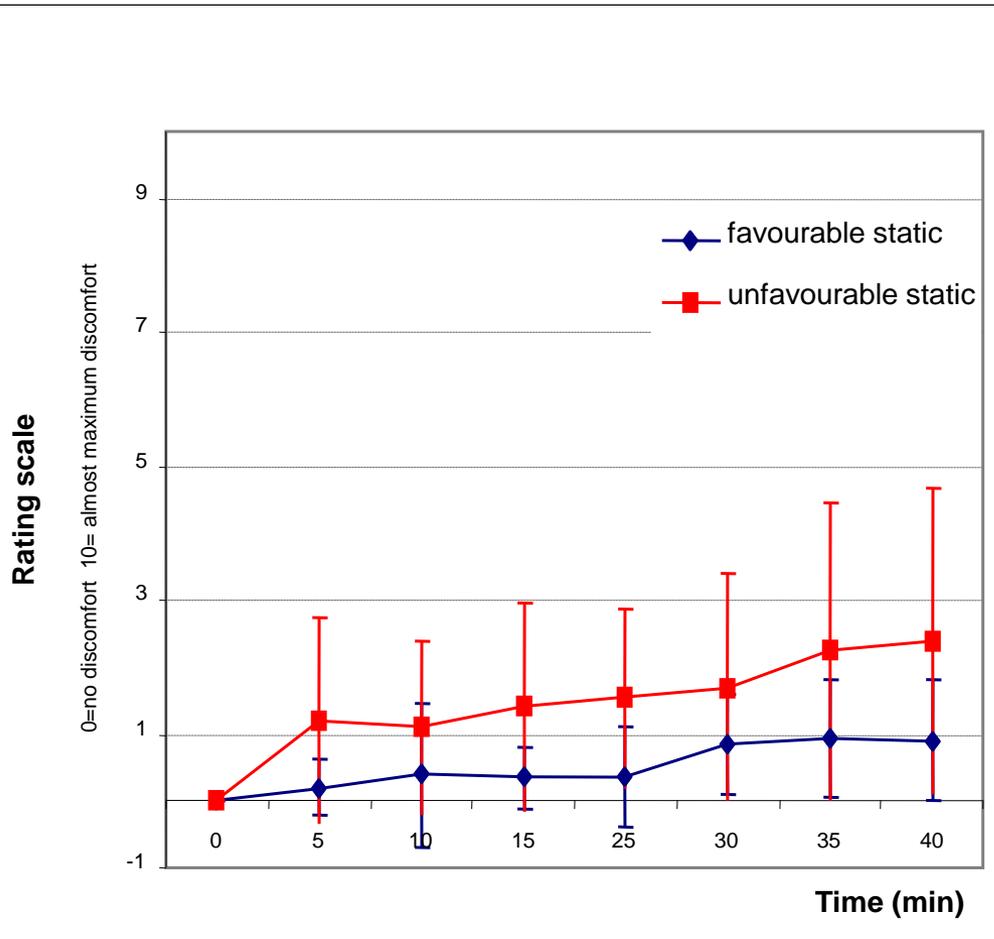


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Perception of Sitting postures



Discomfort and postures



TNO (2007, November). Key factors in the development of an E-Seat: Field studies at Essent and Achmea into the effects of posture on performance and physical discomfort (TNO report: R071076/031-11304). Hoofddorp: Bronkhorst, R.E., et al.

Low interest product



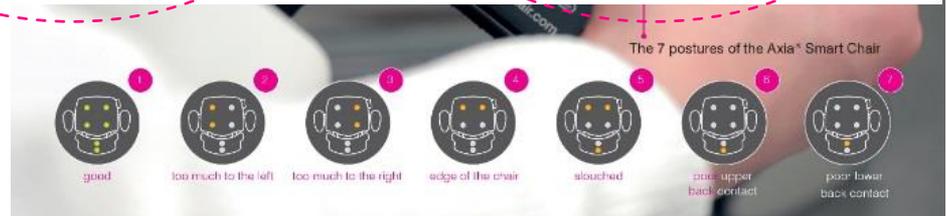
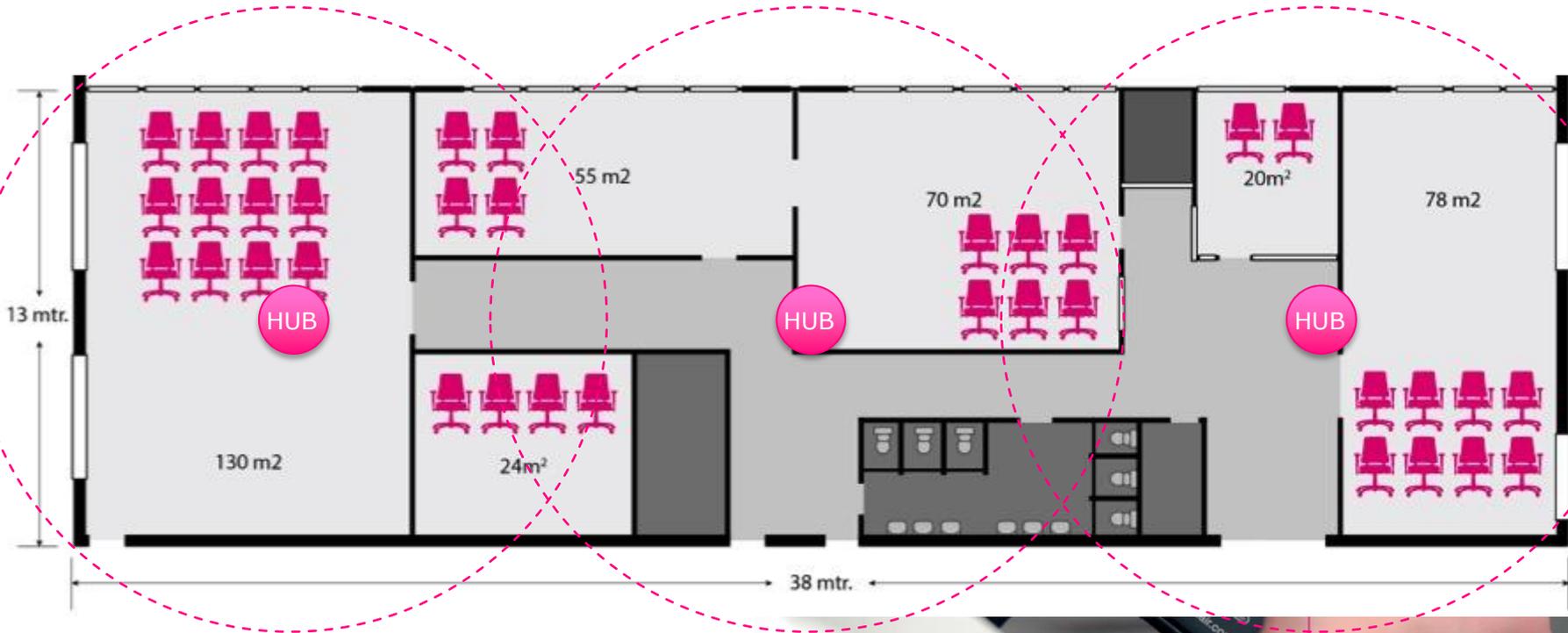
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- ›Office chair is Low Interest Product
- ›Wrong use of chair
- ›Help adjusting
- ›Awareness of sitting posture
- ›Better sitting

Axia Smart Chair concept



Axia[®] Smart Chair



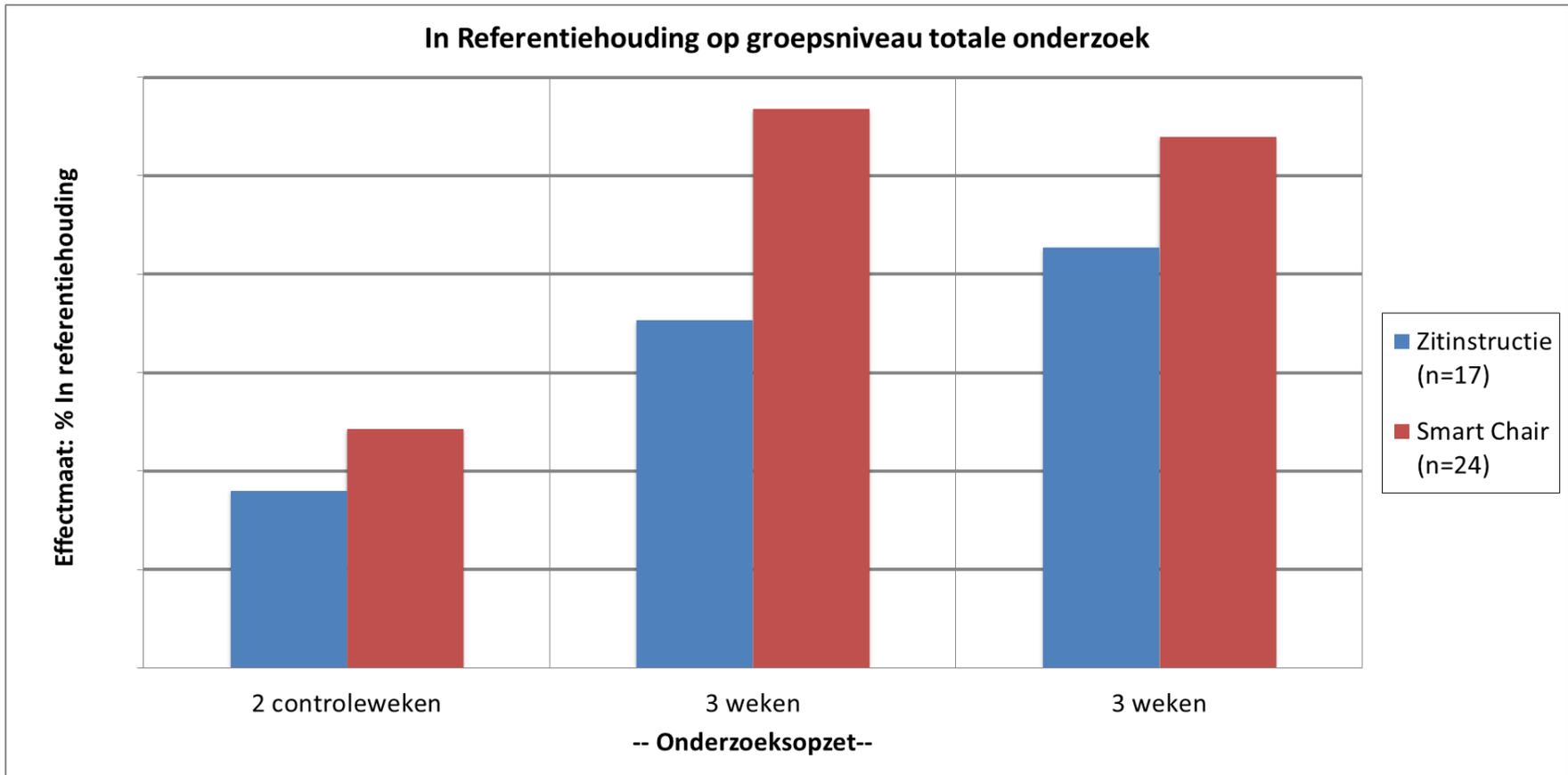
Axia[®] Smart Chair



The personal posture coach!

- Provides **direct feedback** on sitting behaviour and posture
- Raises user's **awareness** towards their seated posture
- Results in improved over all posture and **healthier** style of working

Axia Smart Chair - effects

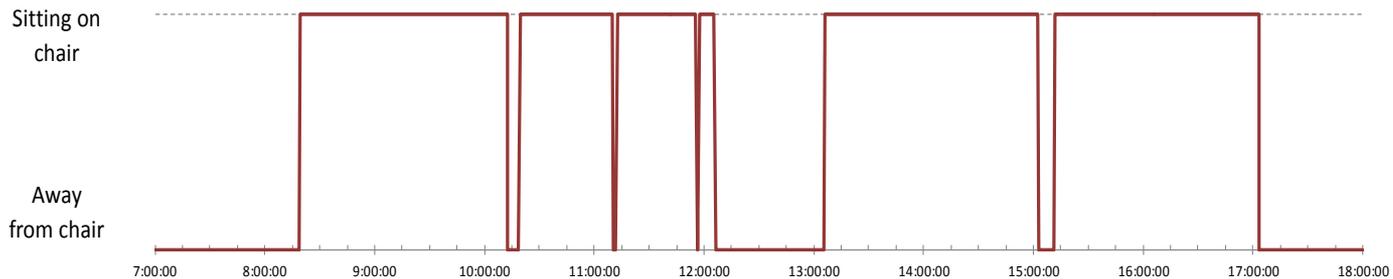


Goossens, R. H. M., Netten, M. P., & van der Doelen, L. H. M. (2012).
An office chair to influence the sitting behavior of office workers. *Work: 41*(Supplement 1/2012), 2086-2088.

Axia Smart Chair – measuring sitting time

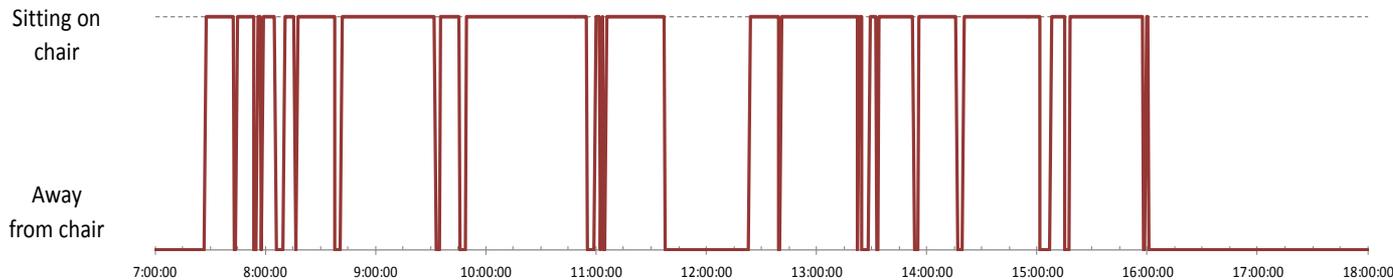


Participant 2 - Sitting pattern (full work day)



8.7 hrs
84,8%
6 events
74 min avg

Participant 3 - Sitting pattern (full work day)



8,6 hrs
80,5%
22 events
19 min avg

Netten, 2013,
Tijdschrift voor Ergonomie: Zitten wat weet je stoel daar nu van ?

Healthy working behaviour

Two great rules:

- ✓ While seated, sit well supported!
- ✓ Ideally stand up every 30 minutes for 2 minutes or longer.



Five aspects of Healthy Working



- ✓ Good ergonomic chair
- ✓ Chair set up & user instructions
- ✓ ‘Coach’ for greater posture awareness
- ✓ Well set up workstation
- ✓ Sit when you must – move when you can!

Axia[®] Smart Active

In progress - expected Introduction end 2015

bma

Sit smart — work sharp.

- axia[®] ergonomics
- + smart technology
- + well set up workstation
- + **movement**

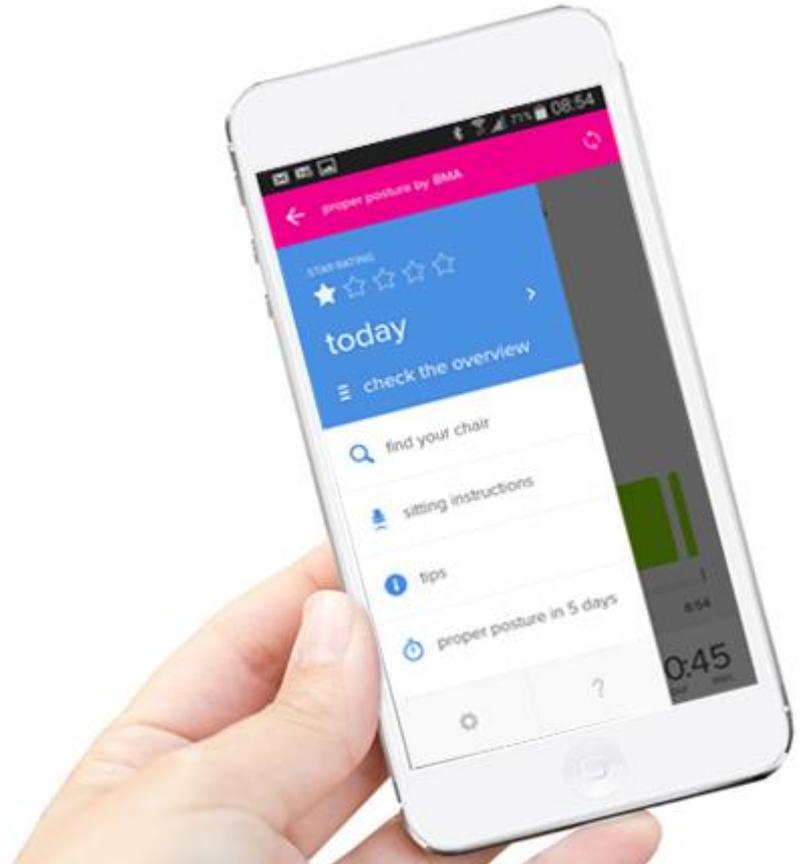
healthy working



Axia[®] Smart Active

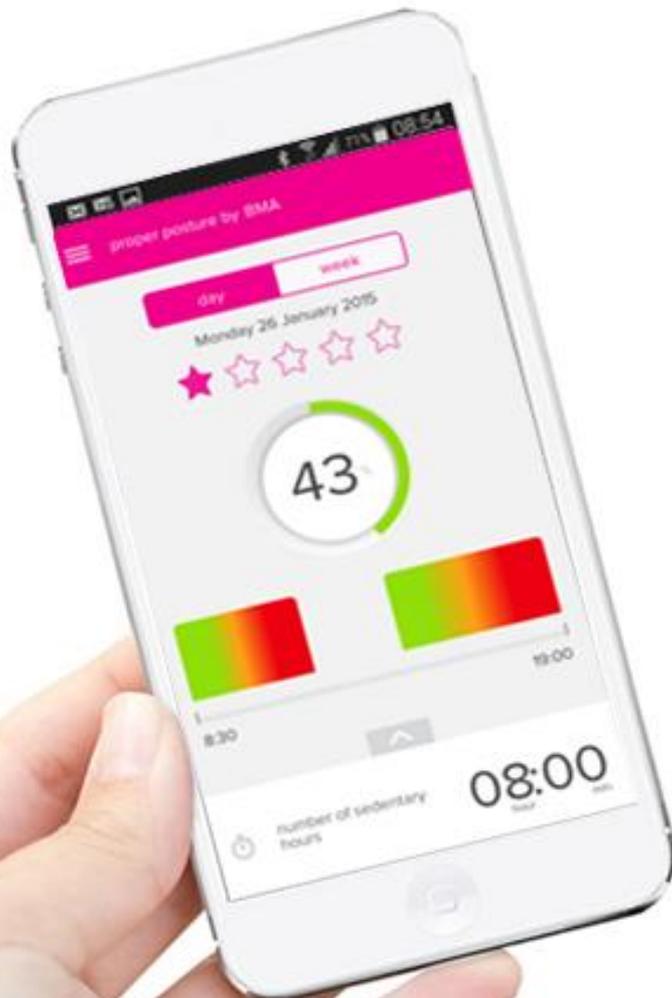


Chair & App as **personal** coach towards a healthy working pattern



In progress - expected Introduction end 2015

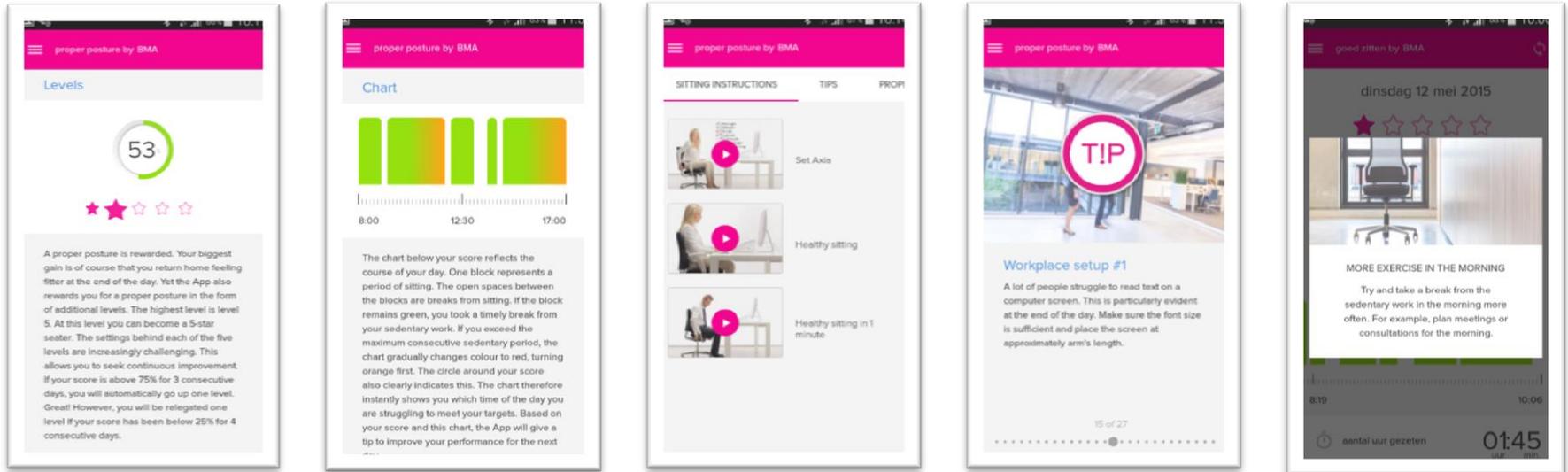
Axia[®] Smart Active App



- App = Personal coach to help against sedentary behaviour.
- Insight information in your **personal** sitting pattern.
- Tutorial, tips to help you improve your working health and become a 5 star seater!
- Seat vibration acts as trigger to get you out off the chair.

In progress - expected Introduction end 2015

Axia[®] Smart Active App



“Proper Posture” by BMA includes:

- personalised sitting/posture scores and charts
- sitting instructions
- a “proper posture in 5 days” tutorial
- a tactile reminder
- tips and tricks for healthier working

In progress - expected Introduction end 2015

Where is my chair?

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It's my life !

Stand or Sit or Move while working ?

What activities today ?

Where is my personal coach – smart phone ?