# Make Me A 'Morning Person':

# Wake-up Challenge Results

November 2011





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#### Foreword

"Last year we put Philips Wake-up Light to the test in the darkest Arctic town of Longyearbyen, Norway, where residents experience 24 hour darkness during winter months. In a remarkable experiment, Philips proved that the Wake-up Light could help residents to feel more refreshed and alert each morning, even in these harsh conditions. This year's Wake-up Challenge takes us to a new extreme: to deliver better mornings to some of the world's worst 'morning people', and to prove that Philips Wake-up Light really can make you a morning person."

From my scientific perspective, a true 'morning person' is someone for whom morning is their best time of day. 'Morning people' wake up fairly easily, have more energy in the mornings and are more alert. Typically they have more energy and alertness in the morning than they do in the afternoon or evening. 'Non-morning people', on the other hand, are much more common than 'morning people'. They struggle to wake up in the morning and need an alarm clock to tell them when to get up.

This challenge was particularly interesting because it was the first time that we used a consumer-facing application based on the validated tests we normally run in a laboratory. The tests used were created to show how participants feel when using Philips Wake-up Light vs. their alarm clock; how easy they found it to get out of bed, how their mood improved and how alert they were over the course of the Challenge. From the results gathered, what we've learned is

that Philips Wake-up Light has been found to improve the wake-up experience, even for those who struggle most in the mornings and that **91%** agree that they have become more of a 'morning person'.

Our experience shows that the Philips Wake-up Light can minimize seasonal effects and keep people feeling balanced, so it was interesting to see how well, if at all, it would work against some of the toughest 'non-morning people', even during the darker winter months presented by Daylight Saving Time. This goes to show how important a natural wake-up cycle is, and how important it is for the body to get a natural sunrise signal.

This report will introduce you to the Challenge participants, in particular some of the most extreme cases of 'non-morning' people involved. It will also present data collected throughout the Challenge alongside comments from participants. I'm sure many of you are now wondering: can Philips Wake-up Light 'make me a morning person'? Well, if it can take on the world's biggest skeptics – 'non morning people' themselves - and change their lives for the better, then really the answer has to be - Yes.''

Daniel Adams, light therapy expert and consultant to Philips



## Challenge objectives

## The toughest ever Wake-up Challenge

Last year, in the Arctic town of Longyearbyen, Philips Wake-up Light was put to the test with 186 volunteers to validate a theory that scientists have held for decades: people need natural light signals to function properly. Philips Wake-up Light has been clinically proven by a number of independent clinical studies. Furthermore, two studies published in the summer of 2010 revealed that waking up with gradually increasing light prior to the alarm time is, overall, a better quality of waking up than without light.\* This Challenge went one step further...

By embracing the well-known stigmas attached to 'non morning people' – people we're calling 'grumps', 'corpses' and 'zombies' - Philips challenged Wake-up Light's harshest critics in its toughest ever Challenge: to show that the Philips Wake-up Light would be able to take on the world's worst morning people and convert them to 'morning people' in just 21 days.

Philips designed a special 'Wake-App' for iPhone to record how participants felt upon waking each day. Progress could be tracked and followed via the Philips Facebook Healthy Living page, giving insight into the lives of the participants. The Wake-App was also made available to the public, with over 1,600 additional people responding to the app. Tests were put in place to determine whether participants would feel more alert and find it easier to get out of bed in the morning using their Philips Wake-up Light instead of their usual alarm clock. Did they experience improved mood, and did they continue to use their Philips Wake-up Light after the Challenge? Only time would tell... 21 days to be exact.

#### (Footnote)

\*Study 1: Gimenéz MC, Hessels M, van de Werken M, De Vries B, Beersma DGM, Gordijn MC. Effects of artificial dawn on subjective ratings of sleep inertia and dim light melatonin onset. Chronobiol. Int. 2010;27:1219.

Study 2: Werken MV, Gimenez MC, De Vries B, Beersma DG, Van Someren EJ, Gordijn MC. Effects of artificial dawn on sleep inertia, skin temperature, and the awakening cortisol response. J Sleep Res 2010;19:425.



## **Challenging the skeptics**

'Non morning-people' are universally recognized; new research carried out in July 2011 by Philips revealed that for Europeans, waking up feeling tired, grumpy and sluggish has indeed become the norm. The survey - conducted in 11 countries across Europe - indicates that even for the half (55%) of all Europeans who describe themselves as 'morning people,' their general morning behavior strongly suggests the opposite. The survey also supported the many different kinds of 'morning' or 'non-morning persons' we have learnt to identify in our friends, families and colleagues. We've developed some familiar terminology for the archetypes they represent: the 'early bird' or 'chirpy morning person'; the 'grunter', the 'zombie', the 'corpse', the 'snoozer', and 'the grump'.

For some of these extreme cases, struggling with getting out of bed in the morning had become so deeply ingrained that the possibility of change had never been considered. Indeed in some cases we saw, it had become so serious that moodiness, forgetfulness and grumpy morning behavior had started to impact on relationships and people's ability to carry out even simple tasks such as getting dressed for school or preparing for the day at work. But, despite

the stereotype, this is not an issue to be attributed just to teenagers – fully grown adults were also amongst the worst affected, often struggling to engage with partners, family or fellow colleagues in the mornings.

To best demonstrate the effect of the Wake-up Light, Philips recruited those they deemed would be their toughest skeptics ever: the most extreme 'nonmorning people'. From over 2,400 applications, a shortlist of over 199 people received Philips Wake-up Lights.



## Wernke Hillsland, 13, student, Netherlands

"I hate mornings, I just want to stay in bed forever!" <u>http://www.youtube.com/w</u> <u>atch?v=pyNxDsSkXaA</u>



## Iris Küthe, 42, zookeeper, Netherlands

"I'm interested to try the Philips Wake-up Light, but I'm so bad with mornings I'm worried I can't be changed."

http://www.youtube.com/ watch?v=3nU1PUdvZ4s

## Methodology

Hopeful participants visited the Wake-up Light Facebook community <u>www.facebook.com/Philipshealthyliving</u> to either nominate themselves or a friend to take part in the Challenge during September 2011. Selected against a range of criteria to identify the worst 'morning people', successful participants received a Philips Wake-up Light to complete their 21 day Challenge.



To find out if the participants would benefit from a new way of waking up during

our Challenge, Philips sought to gather quantitative and qualitative data as transparently as possible and in a diary format. Using their iPhone Wake-App, participants logged their experiences each day, answering questions and responding to challenges which measured alertness, mood and ease of getting out of bed. Comparing results from using just an alarm clock during week one vs. their Philips Wake-up Light during weeks two and three, participants reported their experiences and shared stories on Facebook, allowing the public to follow the Challenge and Philips to observe honest feedback on their progress.

#### Wake-App\*

The tests used, measuring awareness, reasoning and memory, coupled with direct questions relating to how participants were feeling, how easy they found it to get out of bed and how alert they were, were designed to give a strong and scientifically sound set of results:

- An awareness test which operates on the principal that when the brain is awake, it's easier to solve problems. Participants completed a stacking and arranging puzzle to evaluate the brain's planning ability.
- A reasoning test which calls different parts of the brain into action, testing if the brain is awake enough to react correctly. Participants were asked to state the color that different words were written in. This is also known as a Stroop test, widely used in psychological tests, and operates on the principal that when the word Red is written in blue ink (rather than red ink), naming the color of the word takes longer.
- A memory test a recall test, scientifically proven to determine levels of alertness. Participants were asked to remember a sequence and repeat it.

#### Questionnaire

On completion of the challenge, participants were issued a short questionnaire to further establish whether they felt more like a 'morning person', whether they would continue to use the Philips Wake-up Light and whether they would recommend it to a friend.

Participants were also asked to rate their agreement with the following three statements:

- "Wake-up Light has had a positive impact on my mood in the mornings"
- "Wake-up Light makes it easier to me to get out of bed"
- "Wake-up Light makes it possible for me to awake alert and ready for the day"

The questionnaire generated further quantitative data, used to create statistics that were provided further evidence of Philips Wake-up Light's success.

\*199 participants completed the post-challenge questionnaire and 134 participants used the Wake-App daily for 3 weeks

Dan Adams explains how Philips' Wake-up Challenge translated scientific matters for consumers

#### **Terminology:**

For results of a social study to valid, they cannot be attributed to some other effect (i.e. a faulty test).

#### How is this achieved?

To yield a relevant study for scientists as well as consumers, the study needs to be long enough to make sure that participants are actually responding to the product. Clinical studies show that three weeks (21 days) yields good statistical experience because it is sufficient time to displace any potential placebo effects. Participants forget they are doing something different and are susceptible to real experiences.

The tests used in the Wake-up Challenge have been validated scientifically. These tests are randomly generated so that the participants won't have a 'learned' or 'practice' effect

Using an assortment of different tests that correspond to different cognitive functions in the brain gives a more accurate indication of how the participant is doing

## Results

After using the Philips Wake-up Light during the 21 day Challenge, **76**% of participants agreed that the Wake-up Light helped them to feel 'OK' or even 'great' when they woke up, and according to a post-challenge survey completed by almost 200 people who received Philips' Wake-up Lights, **91**% said Wake-up Light helped them to wake up feeling like more of a 'morning person'.

## Ease of getting out of bed

- After one week, on average **67**% participants were finding it easy to get out of bed (ranging 'OK' to 'Great') using their Wake-up Light compared to just **22**% from their alarm clock

- By the third week of the Challenge, the 'Corpses' had noticed a **59**% improvement when comparing Wake-up Light (**56**%) to an alarm clock (**35**%)

- Those over the age of 25 years reported on average a **35**% improvement on getting out of bed in the morning using Philips Wake-up Light (**61**%), compared to the alarm clock (**45**%)

- According to a post-challenge survey **94%** agreed that Wake-up Light makes it easier to get out of bed in the morning

## **Participant comments**

"I am an utterly hopeless morning person, however, the introduction of the Philips Wake-up Light into my life has definitely made my mornings a whole lot easier" – Jessica Cook, age 24, UK

#### Alertness

- By the end of the Challenge, Wake-app results showed that an average of **90%** felt alert (ranging from 'OK' to 'fully awake') in the morning thanks to their Wake-up Light. This was reinforced by the post-challenge survey in which **95%** agreed that the Philips Wake-up Light makes it possible to wake alert and ready for the day
- Men noticed a **10**% increase in alertness when comparing Wake-up Light to their alarm clock during the final week of the Challenge
  - Those over the age of 25 reported to feel on average **77%** alert in the morning using their Wake-up Light; an **8%** improvement on the alarm clock

- After a week of using their Wake-up Light, on average the 'Grunters' felt fully (100%) alert, but when using their alarm clock this was just 67%

## **Participant comments**

"I have never used a WUL before and I had a great experience...I will continue to use this daily as it's put a real spring in my step!" – Victoria Smith, age 30 "I can now honestly say it's simply a genius invention. My alertness and ability to get up have definitely improved!" - Jim Wright, age 32, UK

#### **Mood improvement**

- After one week, on average **67**% participants were feeling in a good mood (ranging 'OK' to 'great') from their Wake-up Light compared to just **26**% from their alarm clock
- Over 21 days, Wake-app results show that the mood of the female participants was **37**% better when using Philips Wake-up Light vs. their alarm clock
- Participants over the age of 25 years saw a **34**% increase in mood in the morning when comparing their Wake-up Light to their alarm clock
- The post-challenge survey found that **95%** noticed a change in their mood thanks to an improved wake-up experience

## **Participant comments**

"Who needs sunshine when you have this product...a perfect way to help you wake up with a smile on your face. Every morning is a pleasure!" – Helen-Marie O'Sullivan, age 31, UK

#### Conclusion

All the results highlight the success of the Challenge, demonstrating the positive impact of the Philips Wake-up Light on participants' mood, ease of getting out of bed and alertness in the morning. **91%** agree that they have become more of a 'morning person' since using the Philips Wake-up Light and almost everyone (**95%**) noticed the positive impact on their mood in the mornings. **9 out of 10** also agreed that the Philips Wake-up Light makes it easier to get out of bed (**94%**) and makes it possible to awake alert and ready for the day (**95%**). Consequently, **98%** say they will continue to use Philips Wake-up Light after the Challenge, rejecting previous forms of waking up, and **89%** have already recommended this product to their friends and family.

"This year's Wake-up Challenge yet again reinforces what we know about light: that it has an activating effect on our bodies, and our body's ability to wake up in the mornings. Why would we shock our bodies into waking up with the flip of a light switch or a jarring alarm? Having taken on the world's worst morning people and following much research and clinical testing, it's clear that mimicking a natural sunrise and a gentler transition time is best. The Philips Wake-up Light has proven that this sunrise simulation, at a time set to your schedule, can wake you up feeling more alert, more positive and better able to get out of bed in the morning." **Daniel Adams, light therapy expert and consultant to Philips** 

Product

The volunteers in the *Make Me a Morning Person* project used the Philips Wake-up Light model HF3470. Advanced 'sun rising simulation' technology gradually increases the light intensity, gently preparing your body to wake up. To make the wake-up experience even more pleasant the model also includes two natural wake-up sounds – either morning birds or a gentle beeping – and a digital FM radio. The model is part of a wider range of Wake-up Lights from Philips as well as other products within the Philips light therapy portfolio.

## Range

## Philips Wake-up Light HF3485

Combines advanced 'sun rising simulation' light technology with new, personalized sound options. The light comes with four preloaded sounds; morning birds in the forest, cows from the Alps, a cuckoo sound and relaxing music. Furthermore, you can also easily play your own MP3s through the USB port, allowing you to wake up to a morning ritual that's yours alone. Waking up has never been so easy.

#### Philips Wake-up Light HF3471

Advanced 'sun rising simulation' wakes you up naturally for a pleasant start to the day. And not only wake up, but also fall asleep naturally with dimming light and a choice of three relaxing sounds; morning birds, gentle beeping and wind chimes.

## Philips Wake-up Light HF3470

Wake up to a choice of 2 refreshing sound options or the radio, and the gradual release of light, simulating a natural sunrise.

## Philips goLITE BLU energy light

Philips energy light products help restore and boost energy to overcome winter blues and jetlag. Philips goLite Blu is a compact light device that provides the right level of blue light to help regulate the body clock and improve mood and energy levels. Because it produces more concentrated light, it is more efficient than the traditional white light boxes and considerably smaller. With its compact design and rechargeable battery the goLite Blu can be used at home and in the office, or even for travel across time zones.



#### Useful links and further information

#### About Make Me A 'Morning Person' project:

Philips Healthy Living Facebook page - www.facebook.com/philipshealthyliving

## Philips Wake-up Light:

For more information on Philips Wake-up Light, please visit http://www.philips.com/wakeuplight

#### **Philips Wake-App:**

Philips Wake-App for iPhone is available for download via the Apple store. To make yourself a morning person, try the Philips Wake-up Light and Wake-App to see whether you can improve your wake-up experience.

#### **About Royal Philips Electronics**

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is a diversified health and well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity." Headquartered in the Netherlands, Philips employs over 120,000 employees with sales and services in more than 100 countries worldwide. With sales of EUR 22.3 billion in 2010, the company is a market leader in cardiac care, acute care and home healthcare, energy efficient lighting solutions and new lighting applications, as well as lifestyle products for personal well-being and pleasure with strong leadership positions in male shaving and grooming, portable entertainment and oral healthcare. News from Philips is located at <u>www.philips.com/newscenter</u>.

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