

# SPINCONTROL PRESENTATION

# 2022

Clinical Research Organization specialized in the evaluation of the efficacy and the tolerance of any product with cosmetic, aesthetic or well-being claims.

# Behind Eurofins Spincontrol



Global Expertise, Personal Touch



## Global expertise

- **Tailor-made protocols**, from standard to innovative methods
- **In-house image analysis**
- **Emotion test**
- **Quality system based on 2 quality standards:**
  - Compliant with **ISO 9001** standard since 2005
  - Studies conducted in the “*spirit of the GCP*”
- **Marketing & regulatory monitoring**

## Key figures



# Efficacy tests & Techniques



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## Our clinical studies can be performed according to different protocols



### Consumer approach

Targeted consumers will be asked to evaluate the product at home and to fill out a questionnaire at the end of the study.



### Technical approach

This approach is based on the use of instrumentations which allow quantitative and/or illustrative results  
*(3D technologies, AEVA system (Eotech), image analysis, Infra-red camera, Dynaskin and all the other standard techniques (sebumeter, ballistometer, corneometer....)).*



### Clinical approach

*(by dermatologists or ophthalmologists or general practitioners)*  
This approach is performed under the supervision of a specialist who will evaluate the efficacy of the product.



### Sensorial approach

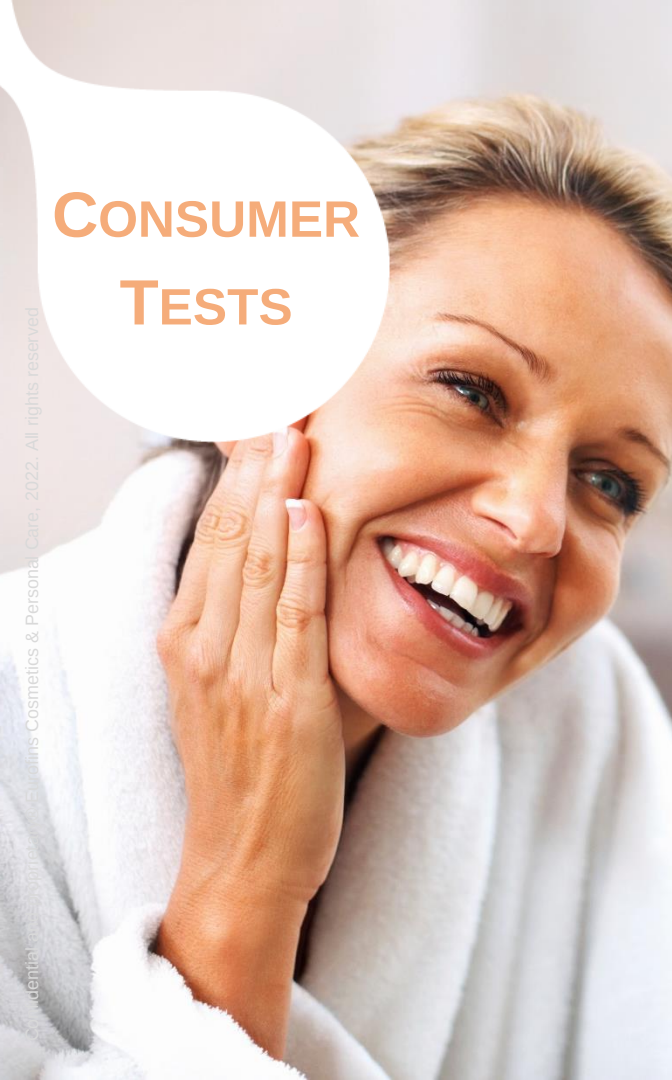
*(by trained experts)*  
This method is based on the senses (sight and touch). Three regularly trained experts will grade parameters such as firmness, wrinkles, dimples or softness...



### Emotional approach

Emotions influence our behavior and perception of the product. We draw-up tailor-made protocols according to three components *(subjective, behavior and visceral)* which are then interpreted by a Neuropsychologist.

*with or without a tolerance test*



## CONSUMER TESTS

# Perception of your product



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**The consumer test provides essential information on the perception of your product.**

- Spinconso: department of Spincontrol, dedicated to consumer tests.
- 30 years of experience
- Complete supervision of the studies: *up-front reflections, choice of the protocol, preparation and implementation on fieldwork, analysis of data and elaboration of recommendations*
- Regular update of the database of panelists
- Follow-up on the panelists reliability
- Fast setting-up of studies and delivery of results

# Consumer tests



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## BENCHMARK, BLIND OR BRAND STUDIES

according to 2 options:



- Questionnaires filling process at home
- Questionnaires filling process at Spincontrol' under supervision

**Little extra:**  
Emotional approach

## BENEFITS OF CONSUMER TEST



PRACTICALITY



ADAPTABILITY



PROFITABILITY

## PANEL CHARACTERISTICS



- People from **all over France**: 8,000 panelists with over 300 details (including cosmetic habits, purchasing sectors, purchased brands etc...)
- People from **Tours and its suburbs**: 7,000 panelists with more than 300 details

# Image processing and analysis



*Global Expertise, Personal Touch*

## A department dedicated to image processing and analysis!

In the world of cosmetics, digital image analysis mainly consists in **proving the product efficacy**, thanks to **essential information assimilated in the smallest details of an image**. It also allows to :



OBTAIN IMAGES UNDER  
STANDARDIZED  
CONDITIONS



IDENTIFY AND QUANTIFY  
VARIATIONS IN SKIN  
AND HAIR PARAMETERS



ILLUSTRATE  
COSMETIC BENEFITS



CREATE  
MARKETING SUPPORT

SPIN'  
ANALYSIS

The interest is to work on standardized photos, generally taken in a laboratory with high-performance tools, which can be taken:

- In **cross-polarization**, i.e. with suppression of the light on the skin surface;
- In **parallel polarization**, i.e. with all the specular light;
- In **diffuse light**, i.e. with a homogenization of the light on the skin surface.

## OBJECTIVE: TO ASSIST YOU IN PROCESSING YOUR IMAGES ON ANY TYPE OF CLAIMS.

*Anti dark circles - Anti dark spot - Anti rosacea - Anti sebum effect - Anti wrinkle - Complexion homogeneity - Complexion radiance - Lifting - Matifying effect - Skin texture - Tanning effect - Whitening effect - etc*

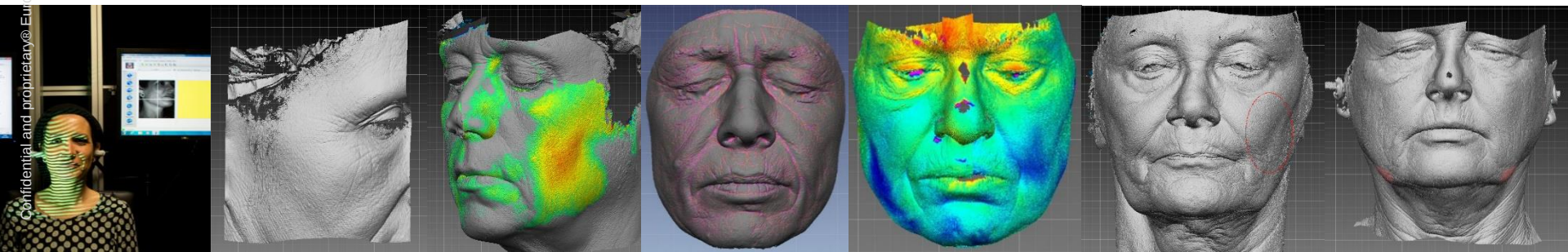


# FACE CLAIMS

## FRINGE PROJECTION

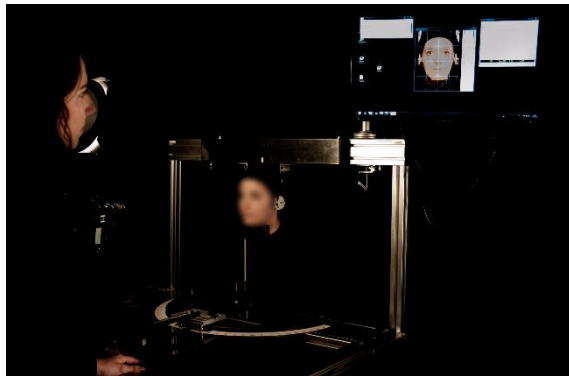
AEVA & DERMATOP SYSTEMS

- Anti wrinkles  
*3D topography: in vivo or on replicas*
- Retexturizing & plumping effect  
*(overall roughness of the face by “radius of curvature” approach)*
- Volume of the hollow cheeks
- Anti sagging effect



## IMAGE ANALYSIS

*Global 2D topography*



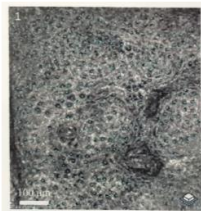
*Analysis of skin  
topography*

## CLINICAL ASSESSMENT

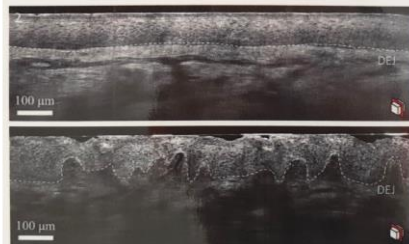
*grading by trained experts in vivo or on photos*



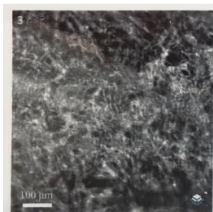
## LC-OCT



Epidermis  
thickness

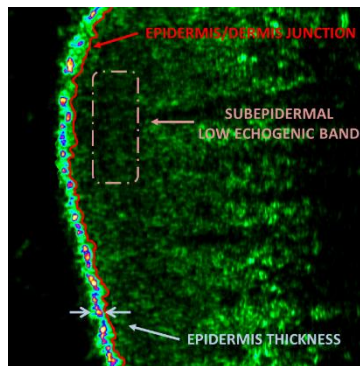


Collagen  
network



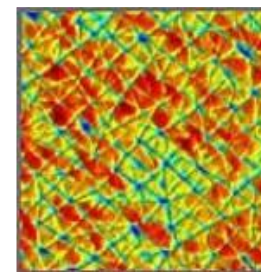
## ULTRASOUND IMAGING

*skin thickness & homogeneity* measurement

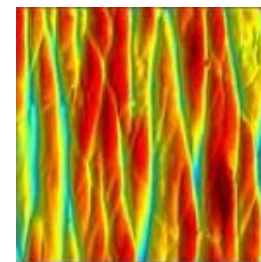


## SKIN MICRO RELIEF

3D Microscopy



<30 years old



>70 years old

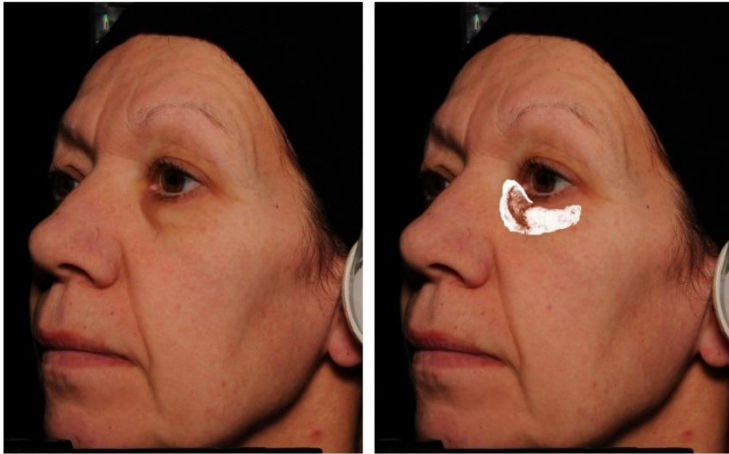
# Anti dark circles



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## IMAGE ANALYSIS

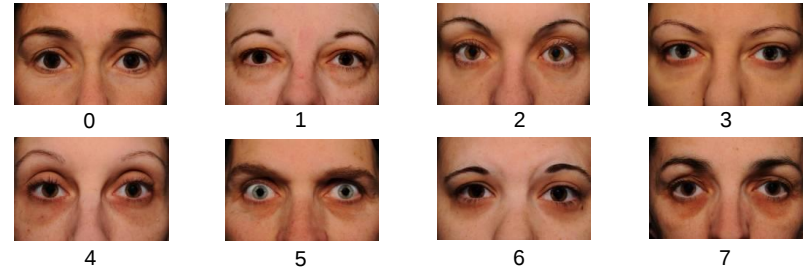
Analysis of the color intensity (due to eye-bags) or vascular or melanin component.



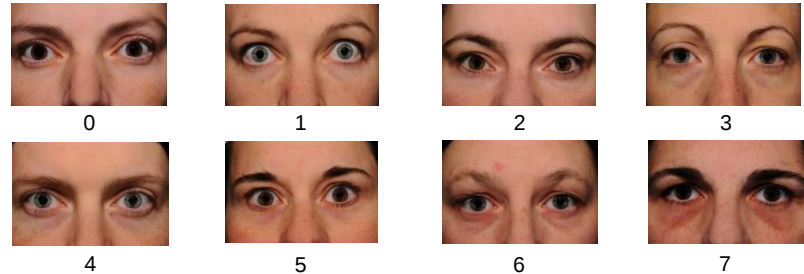
## CLINICAL EVALUATION

on photos

Scale of dark-circles (**brown**) on a Caucasian skin



Scale of dark-circles (**violet-red**) on a Caucasian skin



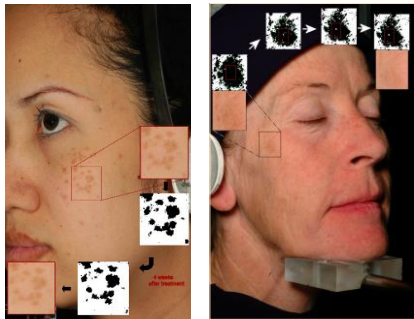
# Anti dark spots



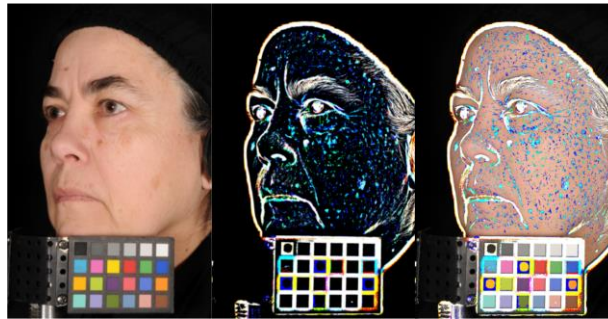
Global Expertise, Personal Touch

## IMAGE ANALYSIS

*Colorimetric and morphological analyses of selected dark spots*



*Analysis of skin pigmentation homogeneity*



*Intensity of melanin component*



## BIOCHEMICAL DOSAGES

Skin surface samples in polluted cities (Mumbai, Bangkok or Jakarta).

2 possible dosages:

- Levels of elements as heavy metals: V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Pb, As, Si et Ti
- Lipids alteration assessment



# Anti-oily skin effect

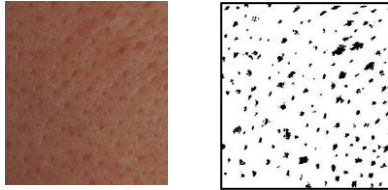


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## IMAGE ANALYSIS

Measured parameters from C-Cube images:

- Number of visible pores
- Total area of the pores
- Average diameter of the pores

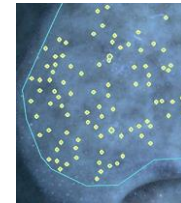


Matifying effect



Anti-sebum effect

Focused on porphyrins by Visia-CR®



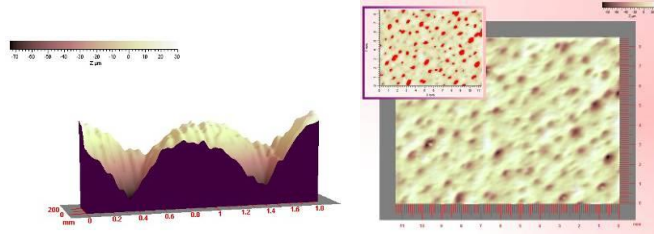
# Anti-oily skin effect



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## FRINGE PROJECTION

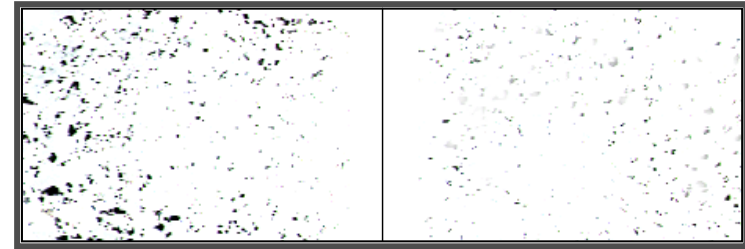
*Diameter of the pores on replicas*



## SEBUTAPE / SEBUMETER

*Anti-sebum effect*

*Before treatment*



*After treatment*



Immediate rate of grease  
measurement

# Cell renewal



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## CHROMAMETER

*After applying DHA patch*

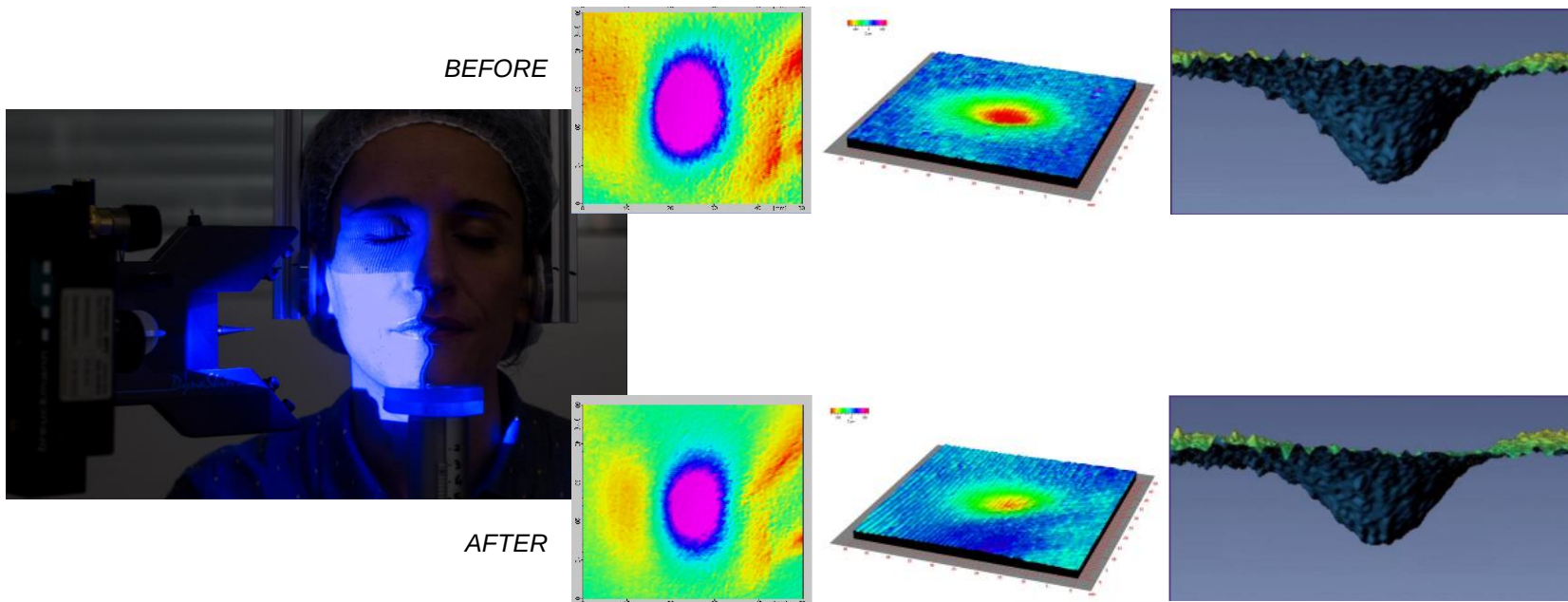


# Firmness - Elasticity



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## DYNASKIN



... and also **CUTOMETER** and **CLINICAL EVALUATION**

# « Healthy skin »

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## MICROBIAL IDENTIFICATION

Microbiome-friendly

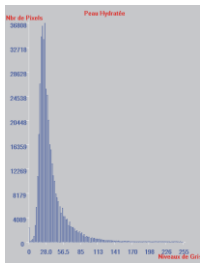
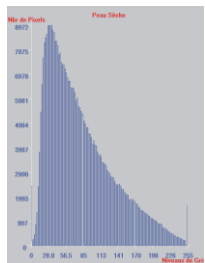
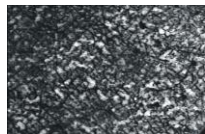
- qPCR analysis
- Metagenomic analysis



## D'SQUAME

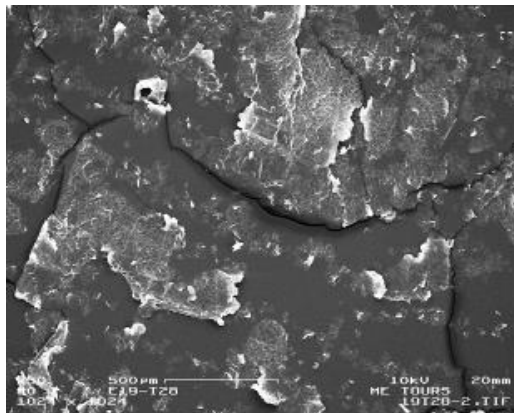
## ELECTRONIC MICROSCOPY

## C-CUBE



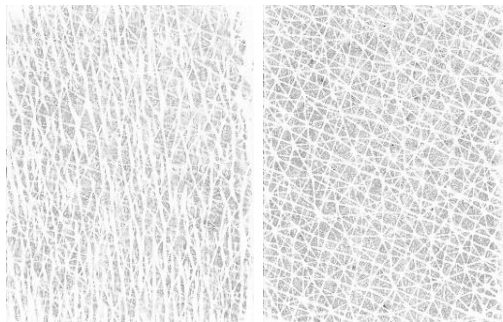
*Dry  
skin*

*Hydrated  
skin*

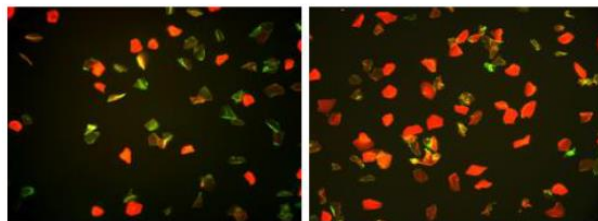


... and also **CORNEOMETRY**, **TEWL** and **MOISTUREMETER**

## MOISTUREMAP®



## CORNEOCYTE MATURITY IDENTIFICATION



Dry

Normal

## DISCOMFORT SIGNS

BY FACIAL EXPRESSIONS

AU 4 : Brow lowering

AU 43 : Closing eyes

AU 6 : Cheek raising

AU 12 : Pulling at corner lip

AU 7 : Tightening of eyelids

AU 9 : Wrinkling of nose

AU 10 : Raising of upper lip

AU 25 : Parting lips



➡ Index of tightness feelings

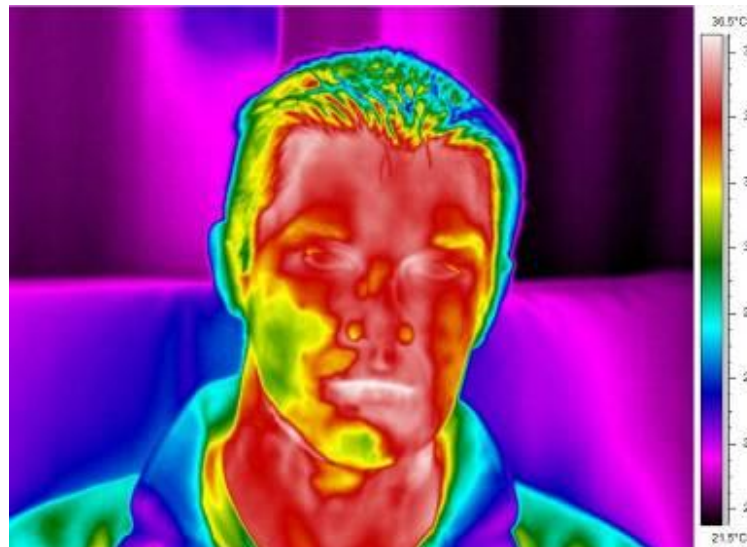
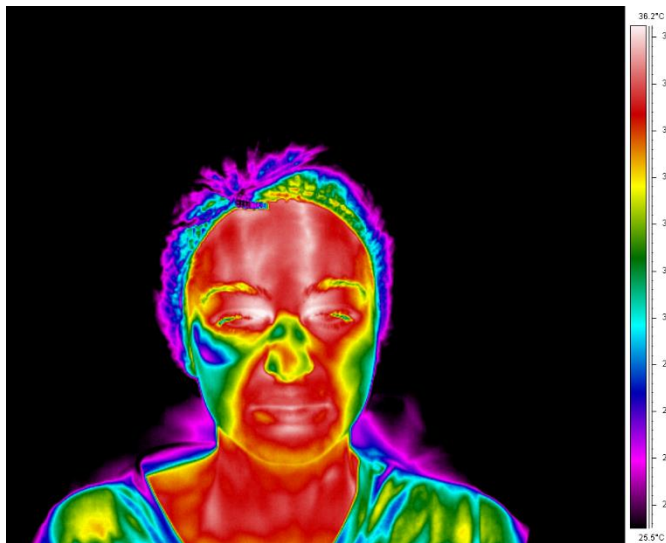
# Refreshing effect



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## INFRARED THERMAL CAMERA

Split-face study, application of a roll-on with a refreshing effect



Split-face study, application of a refreshing after-shave product

# Soothing – Sensitive skin



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## BIOCHEMICAL DOSAGES

*Skin surface samples : Interleukins*



## GALVANIC SKIN RESPONSE

*Emotional test*

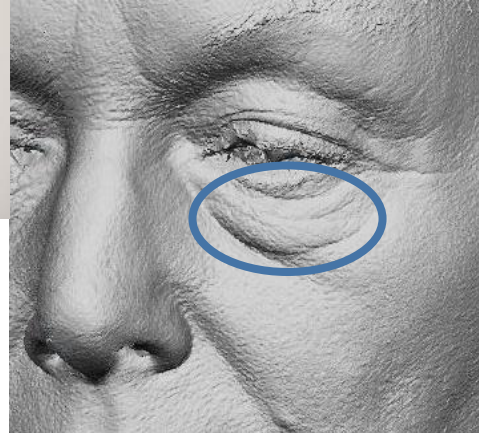
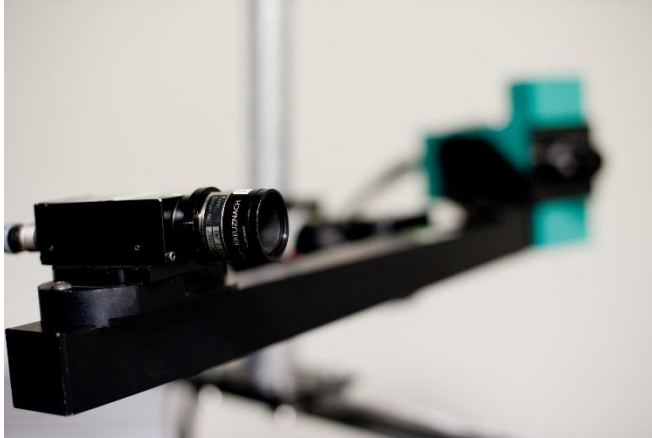


# Under-eye puffiness



*Global Expertise, Personal Touch*

## FRINGE PROJECTION



# Whitening & Tanning effect

## IMAGE ANALYSIS

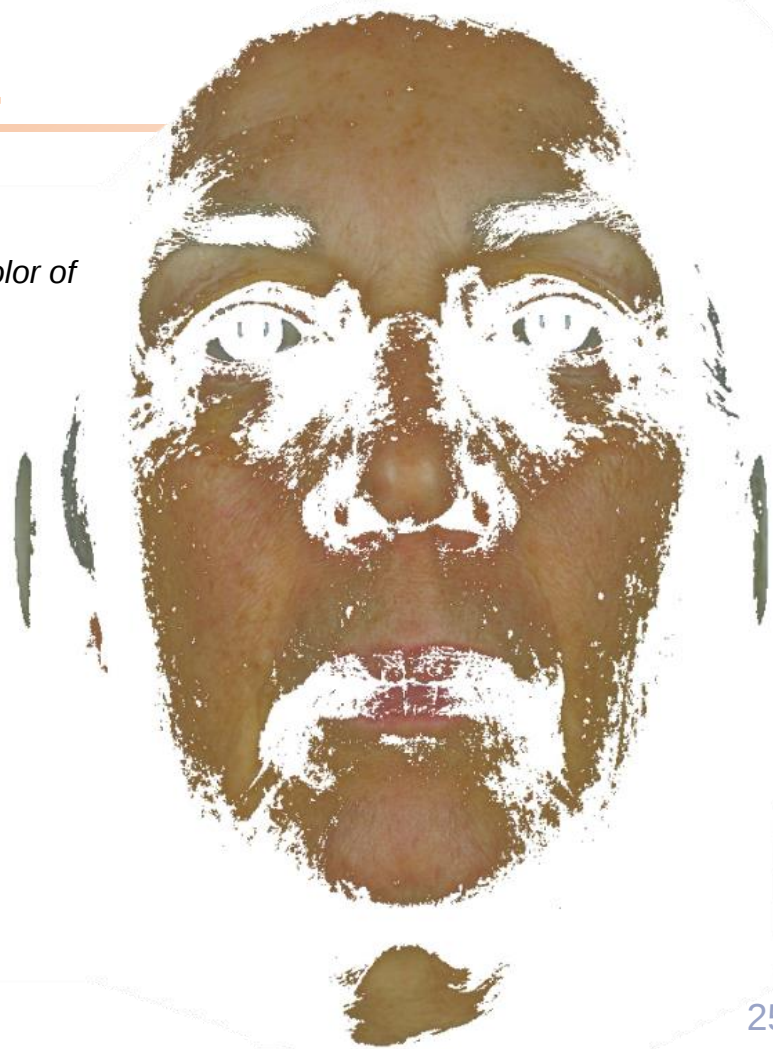
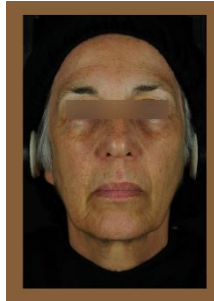
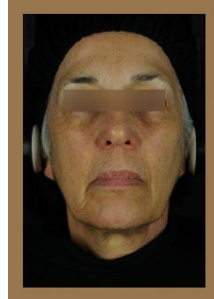
Caucasian skins  
for a **tanning effect**



Asian skins  
for a **whitening effect**



Charasteristic color of  
skin tone



# Focus on complexion



Global Expertise, Personal Touch

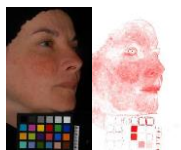
## IMAGE ANALYSIS

*Complexion radiance - Radiance mapping*



*Anti rosacea – Analysis of the red component*

*By Visioface® or Visia-CR® and also SIAscope & mexameter*



*Skin Texture - Analysis of skin texture roughness*

*By Visioface® or Visia-CR®*



## CLBT METHOD

*Complexion radiance*

Calculation of a **C.L.B.T index** based on

- Colours,
- Luminosity,
- Brightness,
- Transparency of the skin.



# Focus on complexion



Global Expertise, Personal Touch

## SENSORIAL METROLOGY

### Healthy glow effect

#### Measured parameters

- Colours of the skin: *Pink-red, olive, tan (beige, apricot-coloured, blond colour and brown colour)*
- Physical characteristics: *luminosity, homogeneity of the skin and strain on the skin*



Setting of the sensory metrology room



Structured scale of the Good complexion colours – Spincontrol



Analogical scales for “luminosity”, “homogeneity” and “strain” evaluation

# Focus on beard

**HAIR TUNE** (Sound analysis)

Softness

**XPOLAR®**

**Damaged** - Structural analysis (Keratin) by polarimetric scanner



# BODY CLAIMS

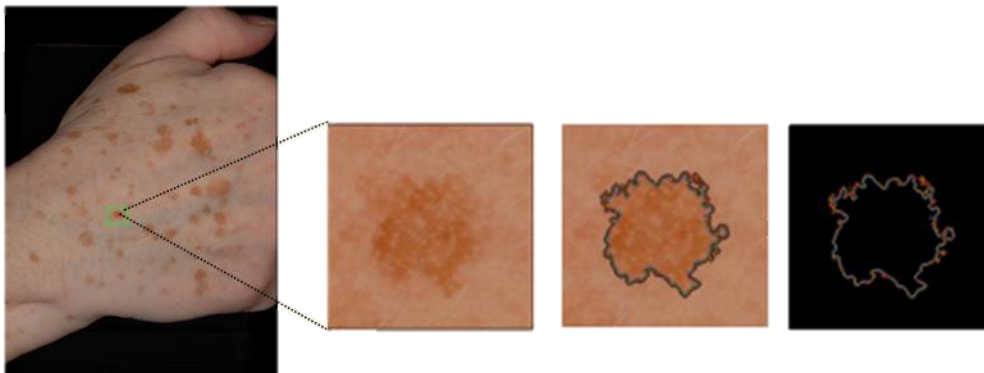


## IMAGE ANALYSIS

by Visioface®, Visioscan or C-Cube

Calculated parameters :

- Colour of spots
- Colour of skin
- Sharpness of the contours
- Total area of the spots (mm<sup>2</sup>)



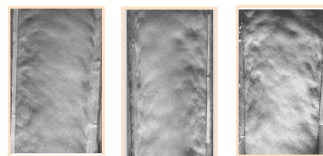
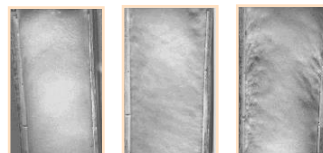
# Anti-dimples



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## PROFILOMETRY 2D

Roughness of the dimples



Roughness parameters  
or clinical evaluation

## CLINICAL ASSESSMENT

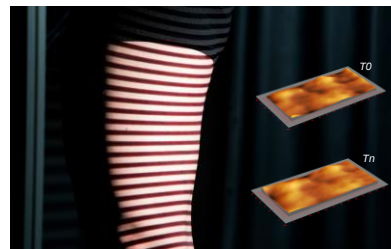
Grading of the dimples



With pinching

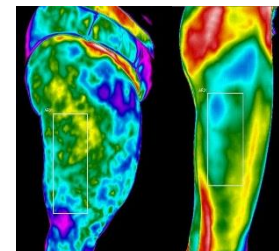
## FRINGE PROJECTION

Roughness of the dimples



3D topography

## THERMAL CAMERA



Heterogeneity  
of temperature

Uniformity of  
temperature

# Firmness & elasticity



**TORQUEMETER**

**CUTOMETER**

**DYNASKIN**

**CLINICAL ASSESSMENT**



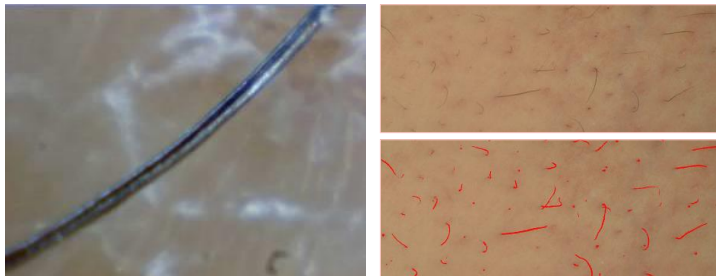
# Hairs removal effect



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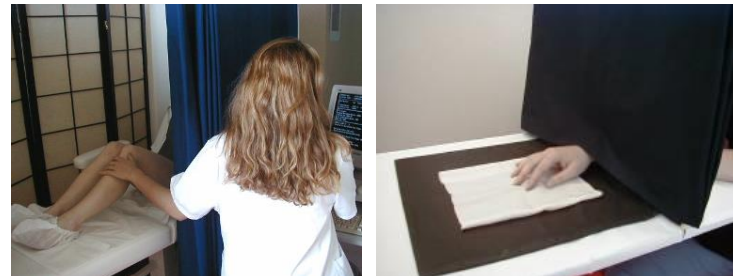
## IMAGE ANALYSIS

*length & density measurements*



## SENSORIAL METROLOGY

*softness of the skin*



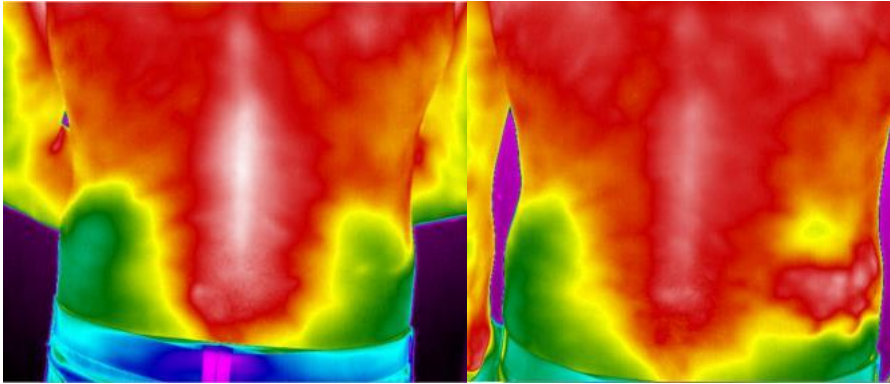
# Heating & refreshing effects



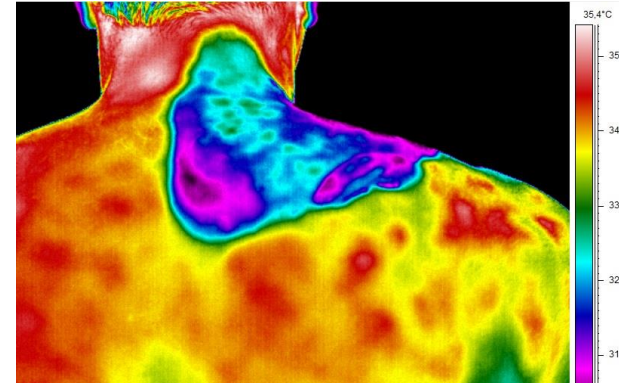
Global Expertise, Personal Touch

## THERMAL CAMERA

*Heating effect*



*Refreshing effect*

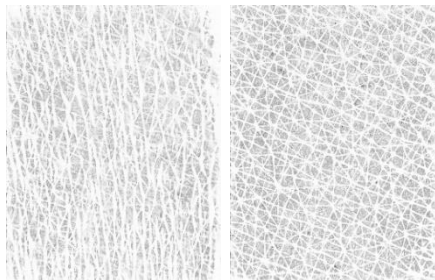


# Moisturizing

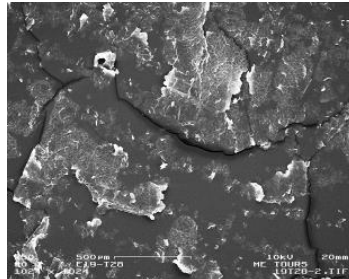


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## MOISTUREMAP®



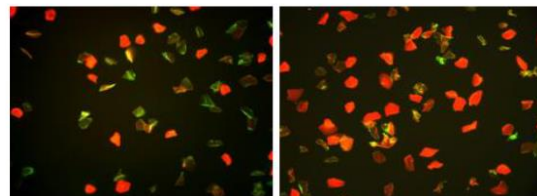
## ELECTRONIC MICROSCOPY



## C-CUBE



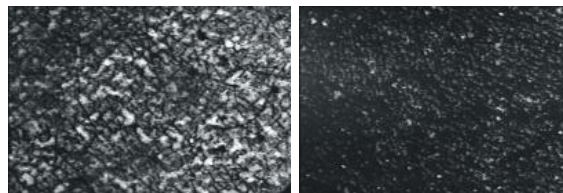
## CORNEOCYTE MATURITY IDENTIFICATION



Dry

Normal

## D'SQUAME



Dry skin

Hydrated skin



... and also **CORNEOMETRY**, **TEWL** and **MOISTUREMETER**

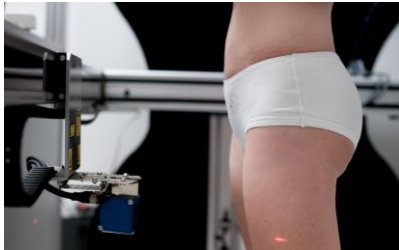
# Slimming



Global Expertise, Personal Touch

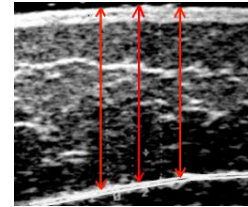
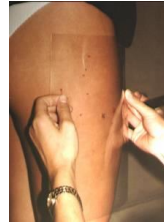
## LASER CENTIMETRY

*Without contact*



## ULTRASOUND IMAGING

*measurement of the adipose tissue thickness (on the thighs or the abdomen)*



## IMAGE ANALYSIS

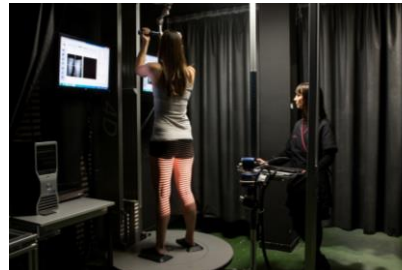
*Silhouette: area of thighs, arms & lower abdomen*



## FRINGE PROJECTION

*Abdominal slimming , « love handles » and thighs*

*Volume of buttocks & saddlebags*



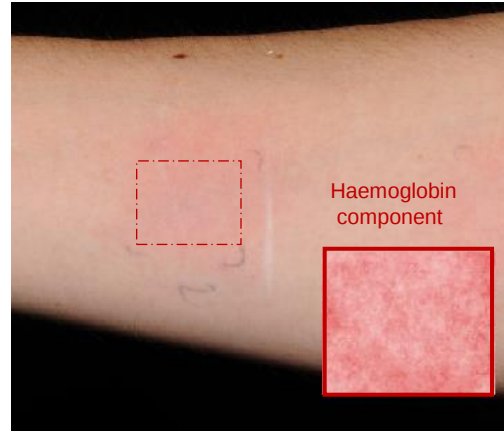
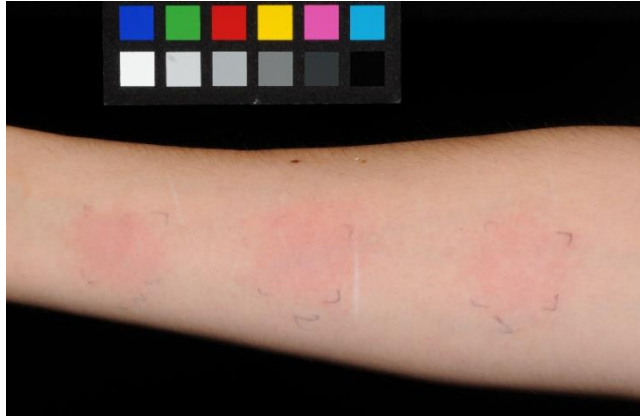
# Soothing effect



Global Expertise, Personal Touch

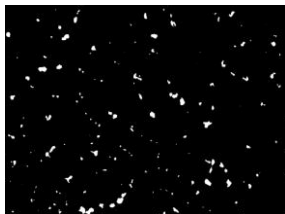
## IMAGE ANALYSIS

*haemoglobin component analysis*



## IMAGE ANALYSIS

- Anti-salt traces
- Anti-sticky sand
- Anti-sun cream traces



*Salt traces analysis  
without product*

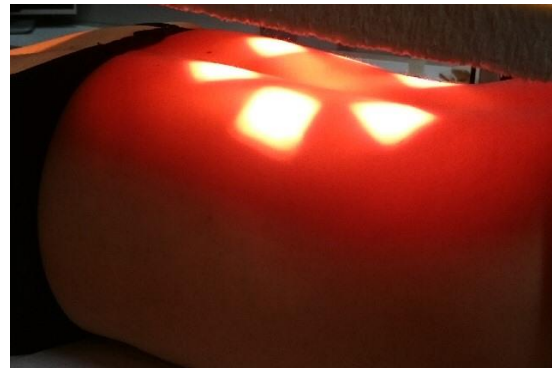


*Salt traces analysis  
with product*

## THERMAL CAMERA

*on the area of irradiation*

Infra-red protection



# Tensing & Uplifting effect of the bust



Global Expertise, Personal Touch

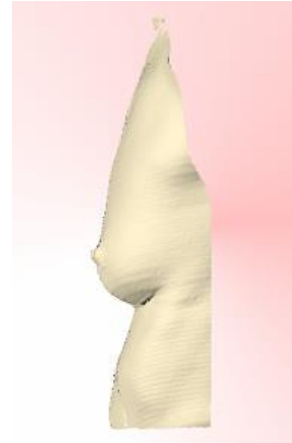
## IMAGE ANALYSIS

*uplifting effect*



## FRINGE PROJECTION

*volumizing & uplifting effect*

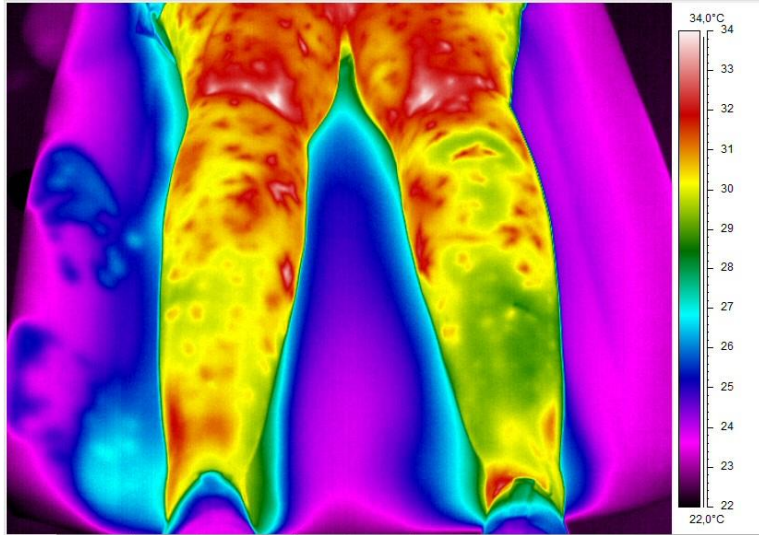


# Tired legs

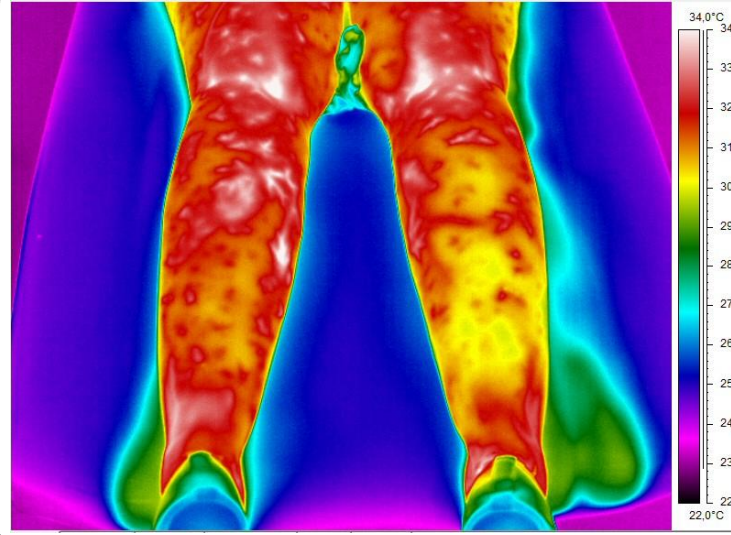


Global Expertise, Personal Touch

## THERMAL CAMERA



$T_0$



$T + 28 \text{ days}$

# « Healthy skin »



Personal Touch

## MICROBIAL IDENTIFICATION

- C. acnes, Staph. aureus, Staph. epidermidis,...
- Metagenomic analysis



# « Antiperspirant »

---

## DOSAGES OF ODORANT SUBSTANCES

- Standard sweating
- Emotional sweating / Social stress



# HAIR CLAIMS



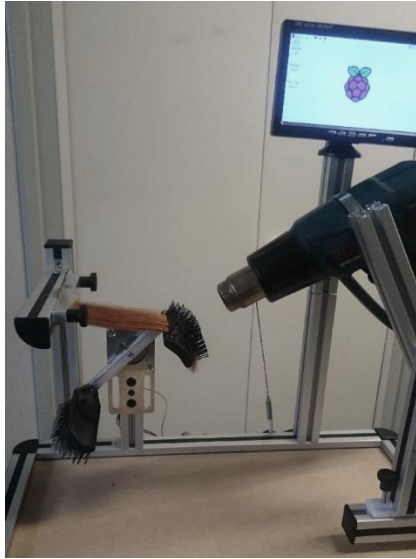
# Anti-breakage and split ends



Global Expertise, Personal Touch

## SPIN SPLIT HAIR

*on natural hair tresses (Caucasian or Asian)*



## PHOTOTRICHOGRAM



Tn



Tn +48h

## IMAGE ANALYSIS

*Controlled environment box (humidity & heat)*



# Anti grey hair



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## IMAGE ANALYSIS

*Covering effect*



*Anti Canities*



## POLARIMETRIC SCANNER

*Melanin quantification*



## BIOCHEMICAL DOSAGES

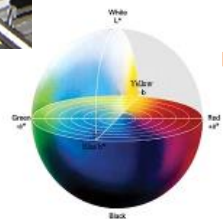
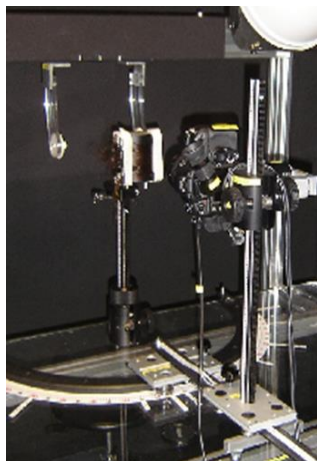
Hair or scalp samples in polluted cities (Mumbai, Bangkok or Jakarta).

Possible dosages:

- Hair: levels of elements as heavy metals
- Hair: Lipids peroxydation (MDA)
- Hair: cysteine oxydation
- Scalp: squalene peroxydation

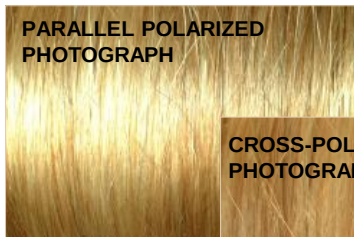


## IMAGE ANALYSIS



$E\Delta$

PARALLEL POLARIZED  
PHOTOGRAPH



CROSS-POLARIZED  
PHOTOGRAPH



CROSS-POLARIZED  
PHOTOGRAPH

COLORED HAIR



# Combing effect



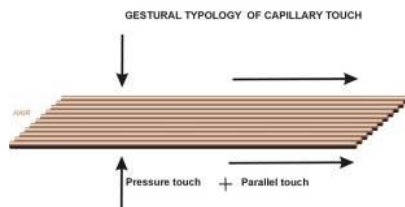
*Global Expertise, Personal Touch*

## HAIR TUNE



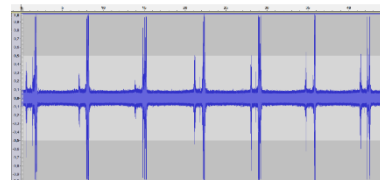
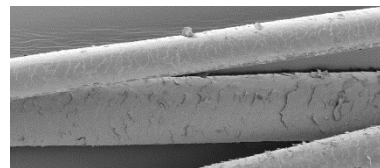
## SENSORIAL METROLOGY

Expert panels – hair surface evaluation

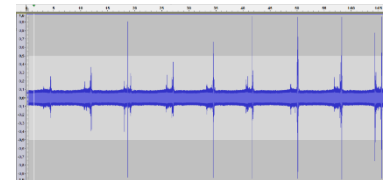
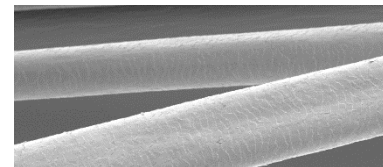


## HAIR TUNE

the sound of hair



Dry hair



Treated hair

# Eco-responsible cosmetics



Globelife Personal Touch

## BIOCHEMICAL DOSAGES

- Rinse water collection
- Rinse speed



# Growth speed



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## CENTIMETER MEASUREMENT



T0



Tn

# Hair sheen



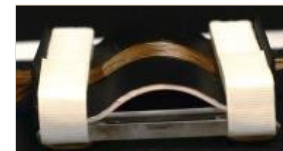
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## IMAGE ANALYSIS

*Specific protocol of damage/dull hair*



## EXPERTS GRADING



No sheen

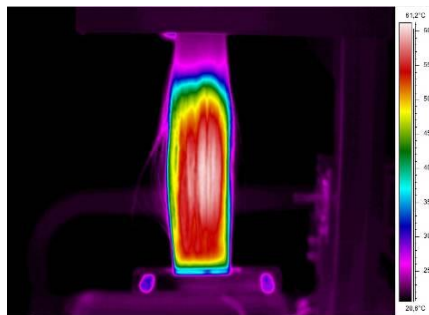
Maximum sheen

# Heat protection effect

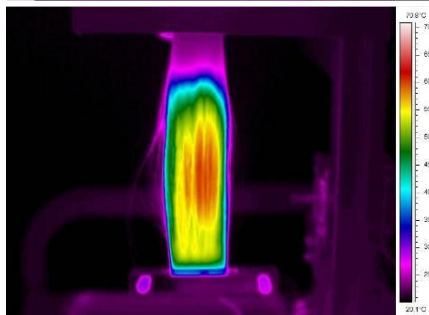


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## THERMAL CAMERA



*Before treatment*



*After treatment*



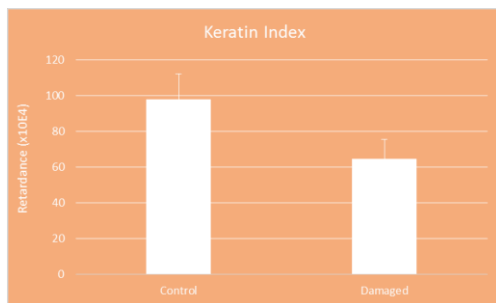
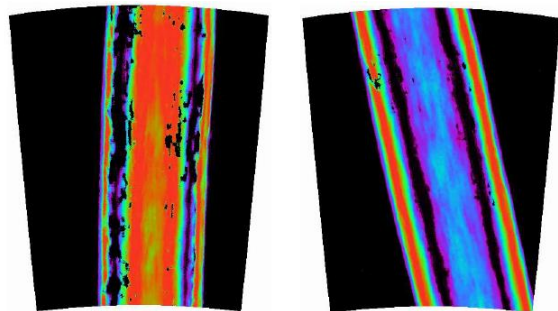
# Keratin quantification



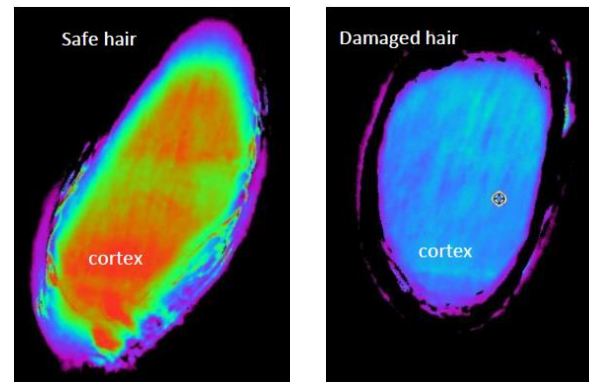
Global Expertise, Personal Touch

## CONFOCAL MICROSCOPY

POLARIMETRIC SCANNER: XPolar®



Images obtained using the **K-INDEX** analysis of the hair structure

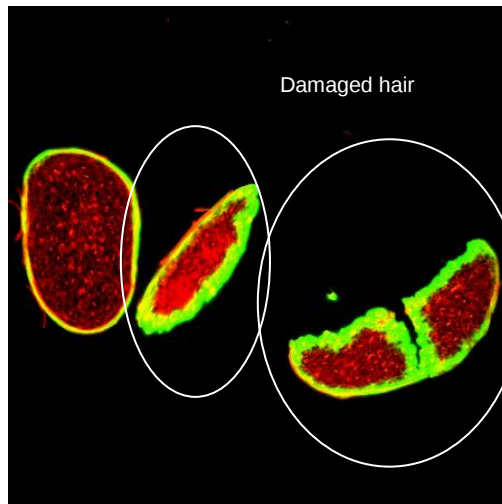
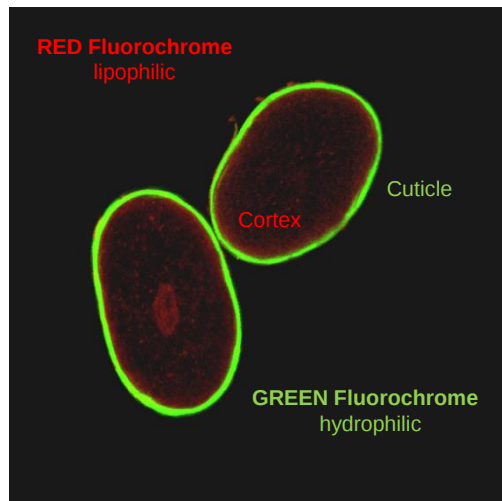


Cross section view of the hair



## CONFOCAL MICROSCOPY

*Specific protocol of damage/dull hair*



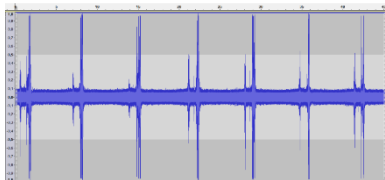
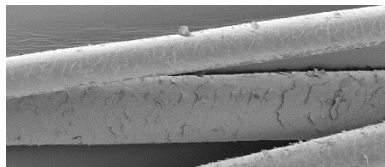
# Salt-Chlorine-Sand Protection



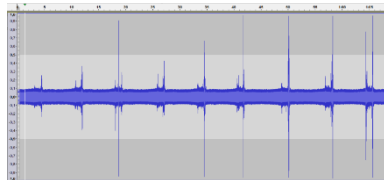
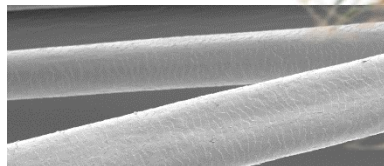
Global Expertise, Personal Touch

## HAIR TUNE

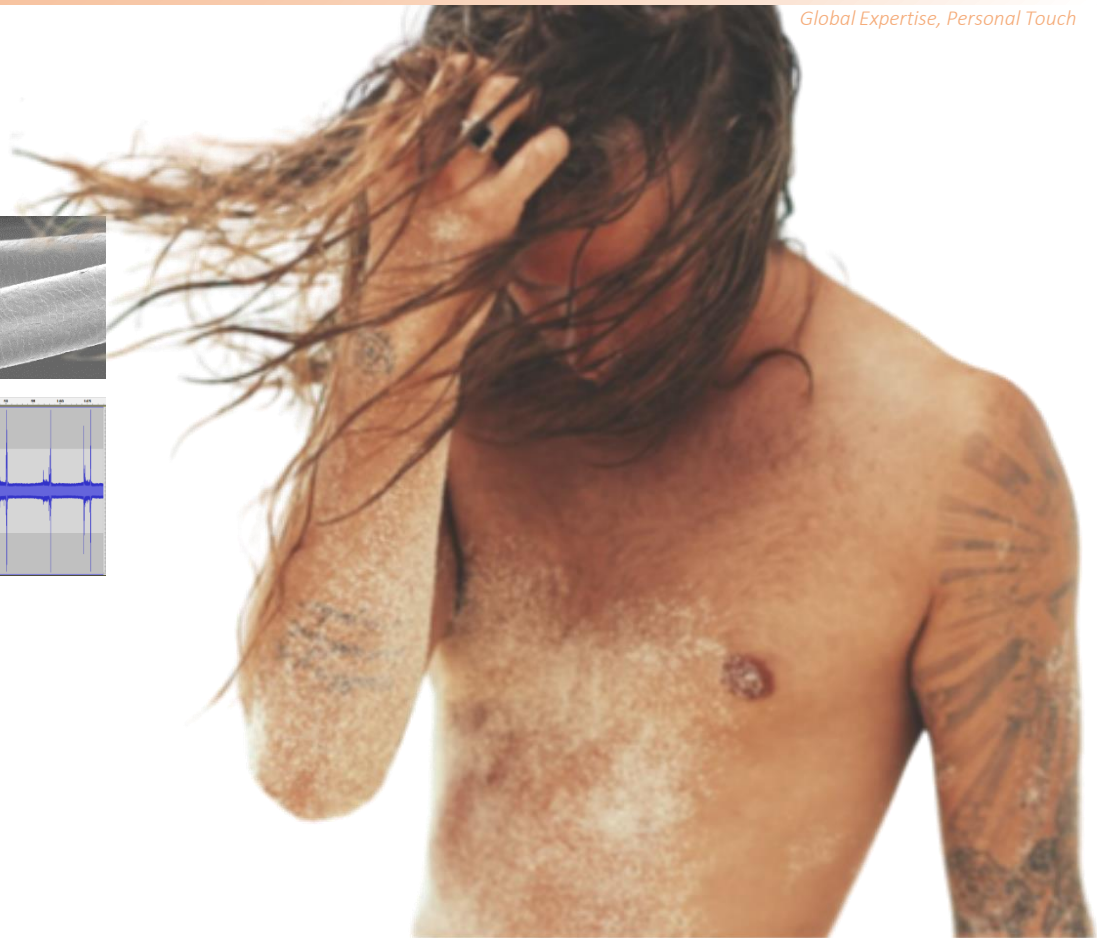
*the sound of hair*



*Dry hair*



*Treated hair*



# Scalp integrity



Global Expertise, Personal Touch

*Anti-sebum effect*

## SEBUMETER



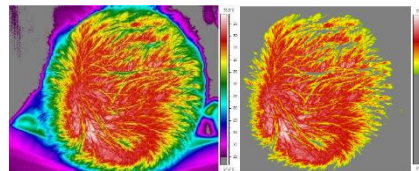
*Anti-dandruff effect*

## EXPERT / DERMATOLOGICAL EVALUATION

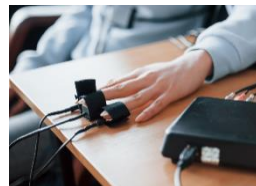


*Soothing effect*

## THERMAL CAMERA



## GALVANIC SKIN RESPONSE



## IMPLICIT TEST



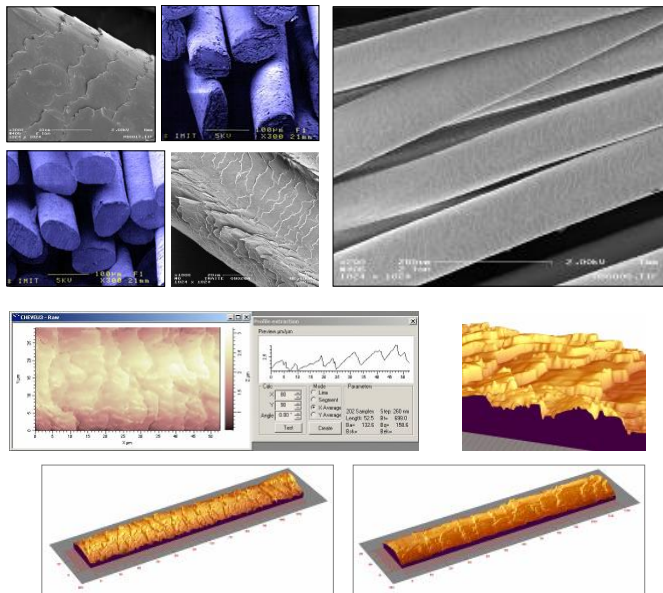
and **SELF PERCEPTION QUESTIONNAIRE & PSYCHOMETRIC QUESTIONNAIRES**

# Smoothing effect

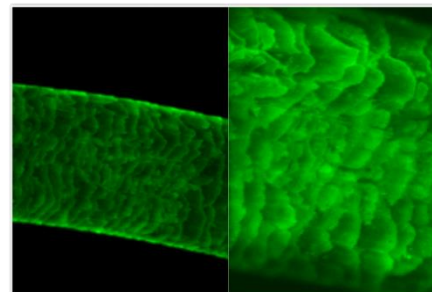


Global Expertise, Personal Touch

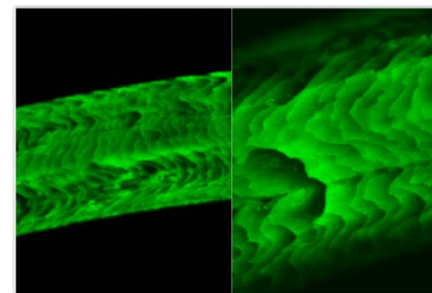
## ELECTRONIC & INTERFEROMETRIC MICROSCOPY



## X-FLUO



NORMAL HAIR



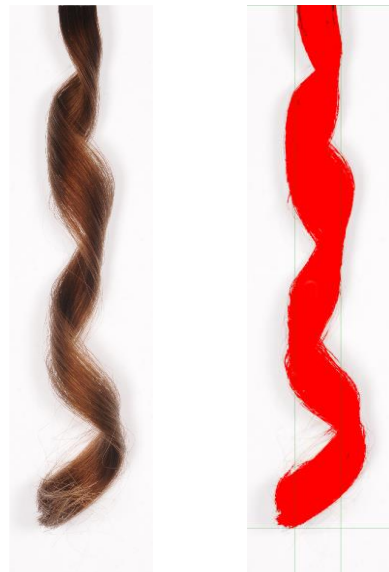
DAMAGED HAIR

# Styling / Fixation effect



*Global Expertise, Personal Touch*

## IMAGE ANALYSIS



# Thickening



*Global Expertise, Personal Touch*

## LED IMAGE ANALYSIS...

Caucasian hair



Before Treatment



After Treatment



# UV protection

## BIOCHEMICAL DOSAGES

- Hair samples inside UV BOX : simulates the effects of sunlight with ultraviolet rays
- Dosage:
  - *Total protein / Keratin*

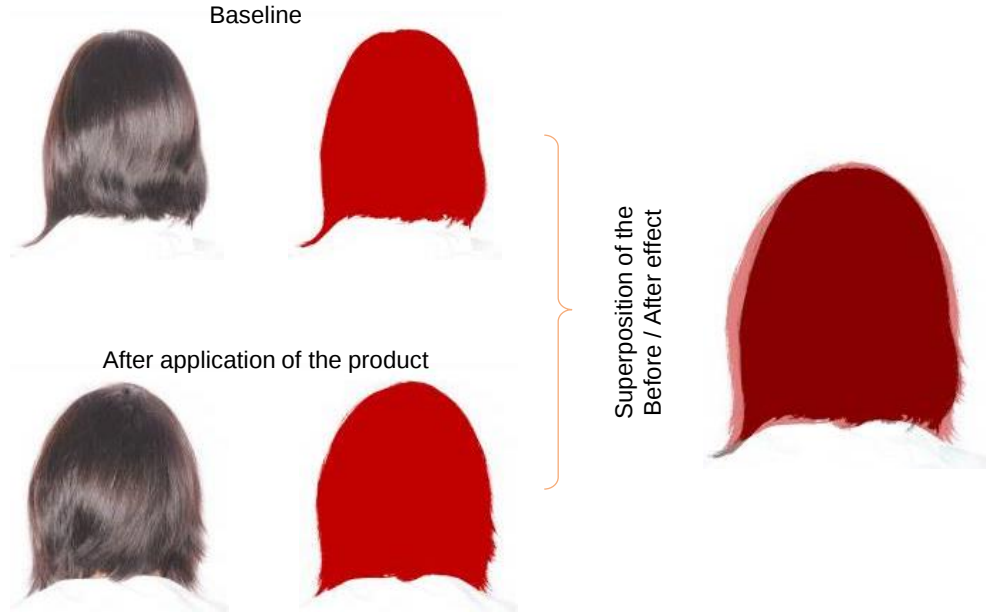


# Volumizing effect



*Global Expertise, Personal Touch*

## IMAGE ANALYSIS





# MAKE-UP CLAIMS

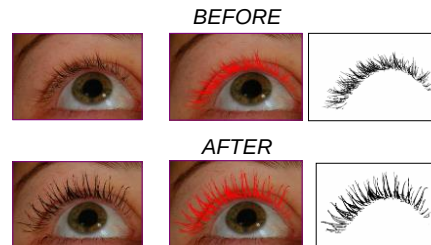
# Mascara



Global Expertise, Personal Touch

## IMAGE ANALYSIS

- Curling
- Lengthening
- Volumizing
- Separation
- Lash density
- Eye opening



## CLINICAL EVALUATION

- Long lasting effect
- Waterproof/water resistant effect



Mascara flakes

Mascara smudges

# Foundation



Global Expertise, Personal Touch

## IMAGE ANALYSIS

*Covering effect - Complexion homogeneity*



*Matifying effect*



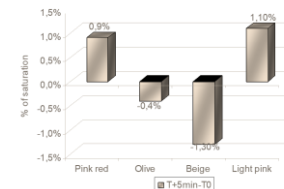
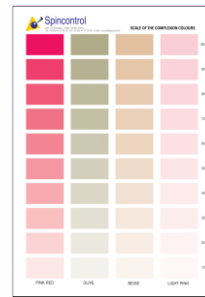
Parallel polarized photograph

Cross-polarized photograph

Difference between  
grey level photographs  
= only the skin  
shininess (negative  
image)

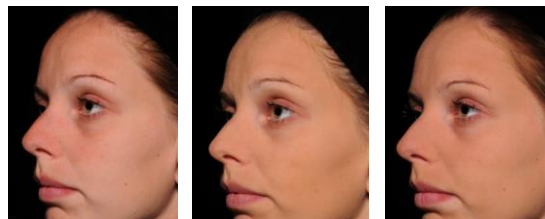
## CLBT METHOD

*Radiance*



## CLINICAL EVALUATION

*Long lasting effect*



Before

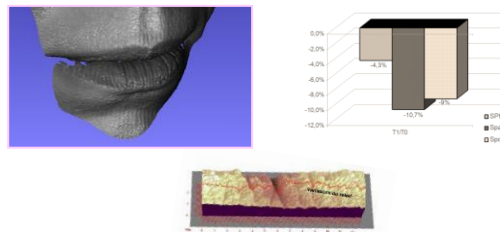
After

n hours

## Lip relief analysis

### FRINGE PROJECTION

In vivo lips acquisition, in 3 dimensions obtained with the Optocat software (Breuckmann, Germany- Eotech, France)



## Long lasting effect

### CLINICAL EVALUATION

**Shininess**  
mirror or wet  
effect notation



**Shininess**  
gloss rating



**Color**  
homogeneity



**Migration**

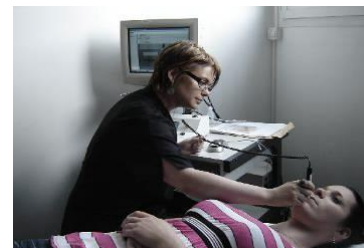


**Color**  
intensity



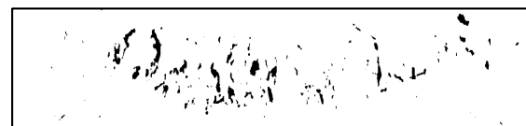
## Moisturizing effect

### CORNEOMETER



Acquisition on lips

### IMAGE ANALYSIS



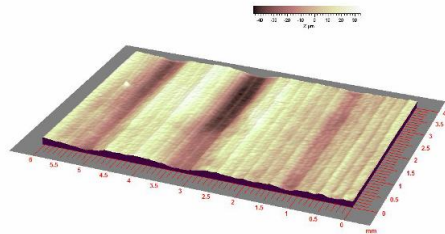
# Nailpolish



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## FRINGE PROJECTION

*roughness* evaluation (on replicas)



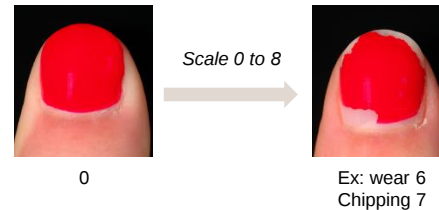
## IMAGE ANALYSIS

*Growth* measurements



## CLINICAL EVALUATION

*Wear & chipping* measurements



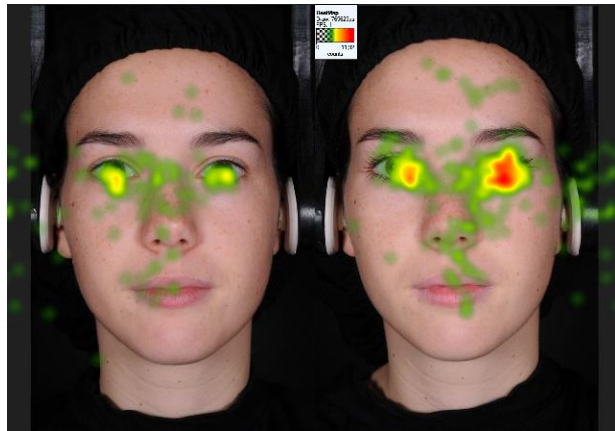
# Make-up perception & removal



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## EYE-TRACKING

*Make-up perception - Make-up Impact*



Without make-up

With make-up

## IMAGE ANALYSIS

*Make-up removal*



Mascara – Lipstick – Foundation ...



Global Expertise, Personal Touch

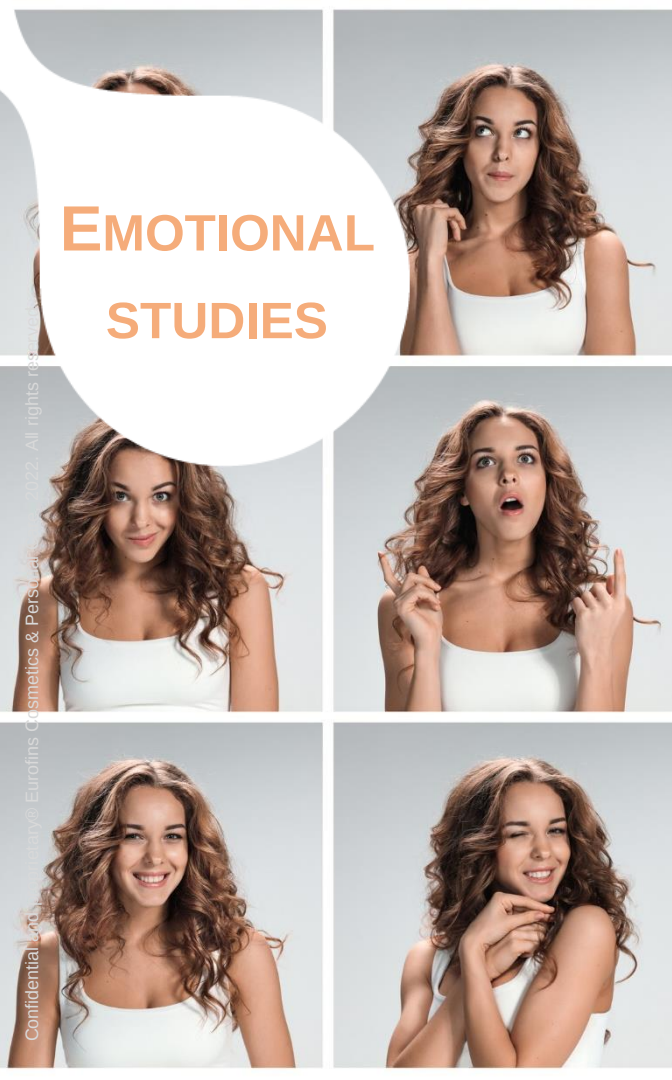
## BIOMEDICAL STUDIES

# Beyond cosmetics

- ANSM (the French Health Products Safety Agency) authorized Spincontrol to carry out clinical and biomedical studies for:
  - Cosmetic products
  - Nutritional supplements
  - Medical devices (Class I and IIA)
- Assistance in submitting to the Independent Ethic Committee (CEI) and the ANSM

## Food supplements allegations

- Against tired legs
- Anti-sleeping troubles
- Anti-stress & dynamising
- Beauty of the skin (*anti-ageing, anti dark-circles, moisturizing, firming...*)
- Painkiller
- Satiety
- Slimness
- Study of the hair & nails



## EMOTIONAL STUDIES

# Emotions and cosmetics



*Global Expertise, Personal Touch*

- Well-being/Emotions
- Consumer behaviour
- Sleep analysis

## WHY EMOTION?

- Efficacy tests
- Emotional design
- Consumer behavior / Decision making
- Research

## HOW TO ACCESS EMOTIONS?

- Cognition: Psychometric measures
- Behaviour: Behavioral/ethological analysis
- Physiological: Visceral component

## VERBAL METHODS

### SUBJECTIVE COMPONENT:

- Validated questionnaires
- Lickert-type scales
- Neurocognitive tests
- Implicit associations
- Structuration of free speech (*text mining*)



## PSYCHOPHYSIOLOGICAL METHODS

### VISCERAL COMPONENT:

- Electrodermal response (*i.e. skin conductance*)
- Skin temperature
- Cardiac activity (*e.g. HR, HRV, BP, ...*)
- Respiratory rate
- Mydriasis
- Hormonal levels
- Electromyography
- Electroencephalography
- Brain imaging



## BEHAVIORAL METHODS

### BEHAVIORAL ANALYSIS

- Posture
- Gesture
- Facial expression
- Eye tracking
- Specific act
- Vocalizations

# Emotional studies - Specific methods



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## MIRROR TEST

- Behavioral and psychometric approach
- Auto & Allo perception evaluation

Attest and quantify the anti-ageing « emotional » benefits of products because chronological age is important, but the subjective age has a stronger effect

## EMOSIGN®

Provide emotional signature of your product...

In addition to sensorial mapping to understand affordance processes

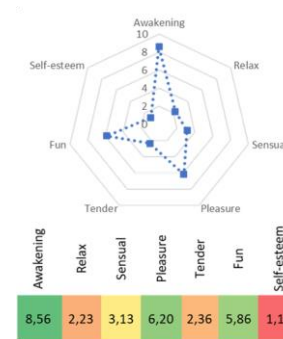
## EMOIM®

Test your product by emotional 3D immersion

## EMOCHAR®

Emotional characterization created by Emospin, scoring 7 main positive emotional :

- **Awakening:** focus, attention, stimulation
- **Relax:** serenity, relaxation, appeasing
- **Sensuality:** arousing, sexy, erotic
- **Pleasure:** liking, “gourmand”, satisfaction
- **Tenderness:** gentleness, softness
- **Fun:** excitement, joy, enthusiasm
- **Self-esteem:** confidence, assurance



# Contact us



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Spincontrol

**THANK YOU  
FOR YOUR  
ATTENTION**