



# Innovation Ergonomics Design Medical devices



cosmétique mag



# Who are we ?

## THE AGENCY

THE USE FACTORY is involved in the creation and design of medical devices and products for health, sport and wellbeing.

THE USE FACTORY places the user at the heart of the project, to satisfy ergonomic and design criteria and make daily life easier for practitioners, patients and athletes.

Almost 30 years at the heart of the creation of innovations in a wide range of fields and technologies has given us extensive experience and a complete mastery of the study and consideration of Human Factors.

THE USE FACTORY is accredited CIR (Research Tax Credit) and CII (Innovation Tax Credit)

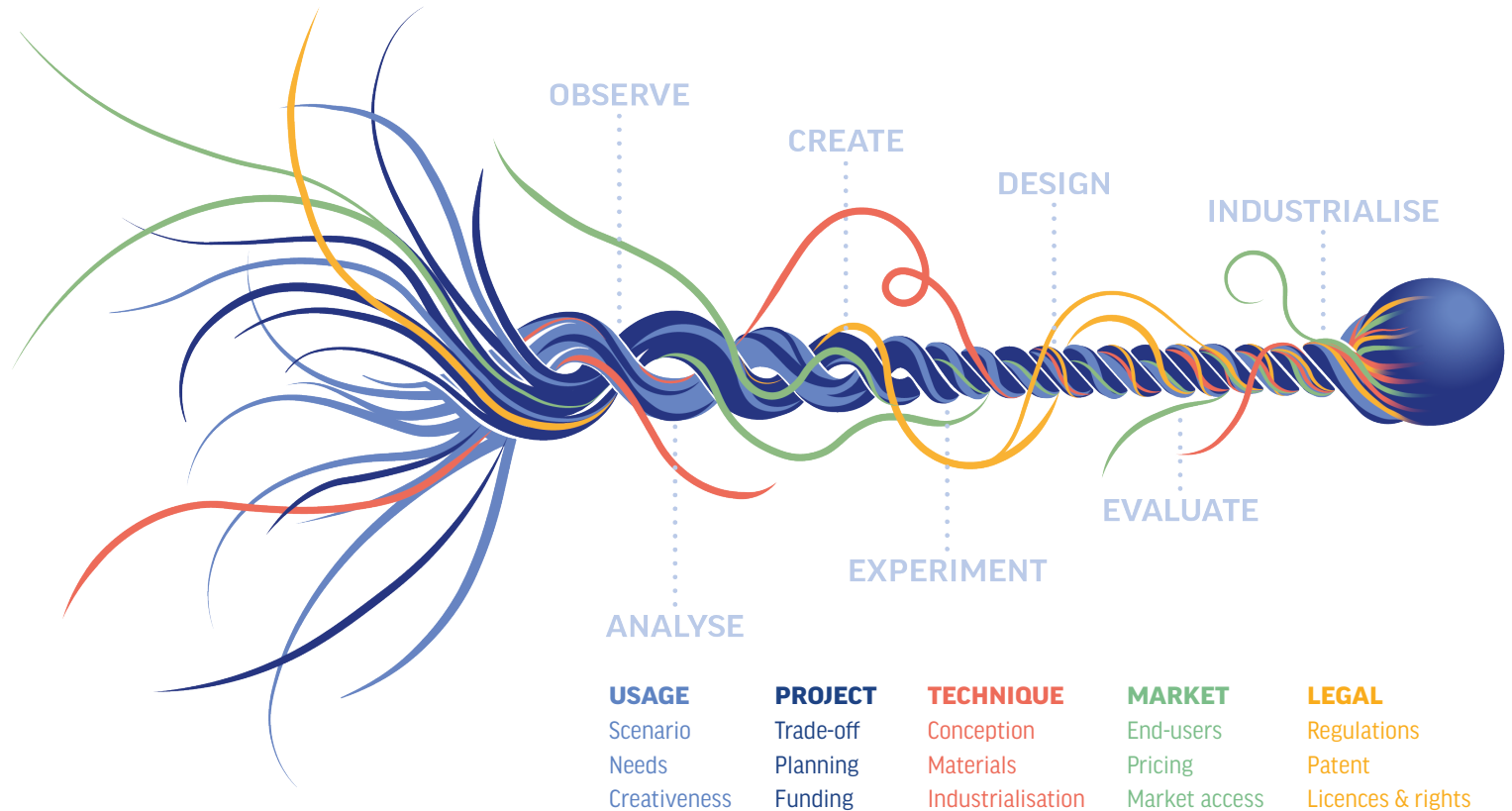


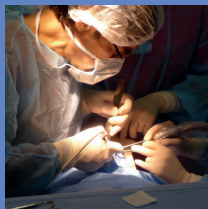
# A CROSS-DISCIPLINARY VISION

An innovation project is often the result of rich but disparate intuitions. From the very start of the process, immersion with users helps to organize these intuitions and clarify needs and usage objectives.

Analysis and creativity then feed the conception process, and design gradually shapes the product. As soon as possible, experiments are set up, followed by the first regulatory assessments. Alongside and throughout the project, legal, marketing and technical inputs help to objectify it and improve its consistency.

When the device reaches the market, it meets users' expectations. Its legal protection enables it to develop serenely and make the most of its investment.





# 1

# Observe

## Delving deep into the user experience

We organise *in vivo* observations with patients and practitioners.

The designer can therefore observe the reality of the device's use and adapt design and ergonomics accordingly to offer the best solution for each usage.

### Benefits

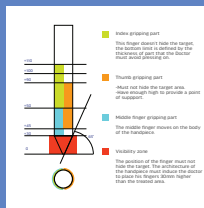
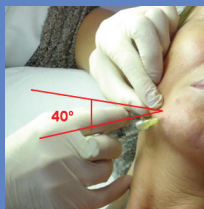
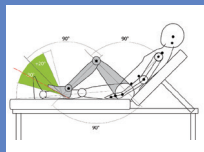
> Favours objectivation, generates user feedback, offers insight.

#### Examples:

- Observations of surgical and dental procedures
- Observation of 22 treatment modalities in 3 departements at the Caen University Hospital
- Observations and interviews with patients presenting with rheumatoid arthritis
- Interviews with nurses and self-injection trainers



# 2



# Analyse

## Identifying, qualifying and prioritising issues

All documentation and information yielded during observations are analysed in detail. Ergonomics, functional constraints, use scenario, etc. are all studied then summarised in Design & Ergonomic Specifications.

### Benefits

> Building the fundamentals of the device.

Examples:

- Decoding the physiological effects of physiotherapy
- Analysing practitioner posture and prehension
- Conducting ergonomic and anthropometric analyses



# 3

# Create



## Create the most appropriate solutions

The project is punctuated by creativity meetings, supported by dedicated preparations to ensure that the challenge is properly handed down to the team. Creativity also comes into play on a day-to-day basis, when designers improvise a meeting to resolve an emerging issue.

### Benefits

> An approach tailored to needs and challenges.

#### Examples:

- Concept creation workshop using samples
- Working meetings led by a designer
- Concept screening session



# 4

# Experiment

## Creating research prototypes and conducting tests

Concepts and solutions are roughly mocked up to experiment and guide design. Gradually, the first prototypes are produced to enable user evaluations.

### Benefits

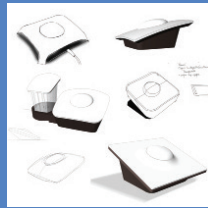
> Creativity confronted with the reality of use.

### Examples:

- iterative mock-ups for an injection device project
- dimensional research on a prototype in a situation of use
- iterative testing of rough mock-ups



# 5



# Design

## Creating an identity for the device or service

Communicating the brand's values, validating ergonomic solutions and functionalities. Thus, we provide devices the ergonomics, intuitive use and aesthetics of which make them an obvious choice.

### Benefits

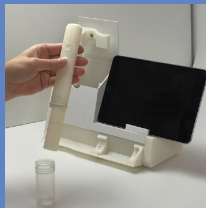
> A global approach to design.

### Examples:

- Mapping trends and semantic settings that uphold the values of the product and of the brand
- Creating a bold identity to valorise the technology and its reliability in the face of fierce competition
- Global device design and MMI



# 6



# Evaluate

## Testing concepts with users

However advanced the study, presenting concepts to users enables options to be approved and precious information to be harvested to adjust and redirect future research on the project. If the context so requires, this so-called formative study stage will fall within the regulatory approach to device usability (IEC 62366 standard).

### Benefits

> To assess the concept's applicability in a regulatory context.

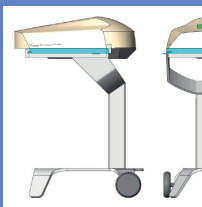
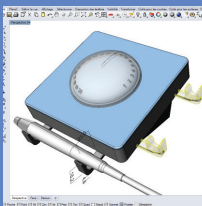
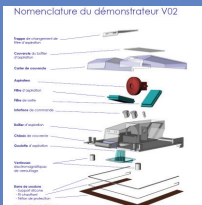
*Examples :*

- Partnership with the CIC-IT Evalab laboratory (CHRU Lille)
- Testing sessions by practitioners
- Tests in CBRN emergency situations



# 7

# Industrialise



## Transforming the concept into reality

Engaging in a dialogue with the team in charge of industrialisation to define the appropriate technical solutions. Accompanying the client up to product marketing.

### Benefits

> Achieving the best possible conditions.

Examples:

- Drafting of documents for industrial consultation
- Guidance in identifying industrial suppliers and assessment of technical proposals
- Consultation on finalising materials, construction and assembly options

EasyGuide

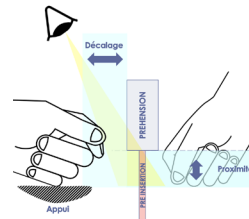


EasyGuide is a needle used to create an entry point for hyaluronic acid cannulae. A solution for a non-traumatic patient experience and a safe procedure for the practitioner.

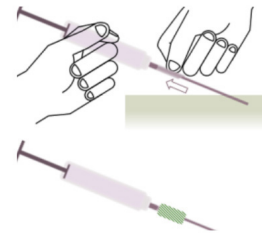
# SoftFil® Project



Observing existing gestures



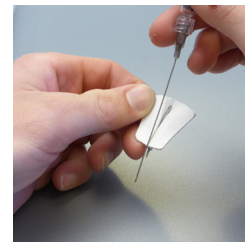
Understanding ergonomics/usage and recommendations



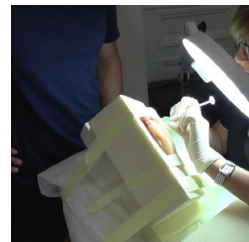
Creating the concept



Experimental creativity



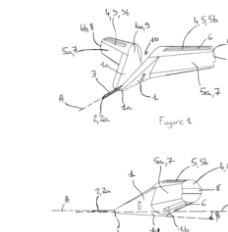
Experimenting ergonomics and practical usage



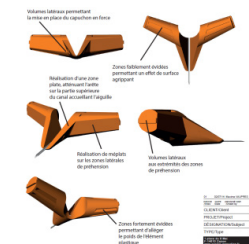
Testing ergonomic and validating usage



Designing



Preparing the patent application with industrial property partners



Preproduction finalisation



## OFFERS THAT SUIT YOUR NEEDS



### Industrial stakeholders in the healthcare sector

Through all the phases of creation and development of your medical devices, THE USE FACTORY offers you its operational expertise, always adapting to suit your needs.



### Startups

THE USE FACTORY brings you its cross-disciplinary expertise and is involved in the successful completion of your project, from the early observations until the industrialisation. We also bring you an extensive network of partners and experts.



### Innovation healthcare professionals

Your daily practice in the healthcare sector is ideal for identifying the need for innovation. With THE USE FACTORY, you can see your project through from idea to market!





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