



kesitys

*Next-Generation Gamma Trading*

# Executive Summary



## *Positioning statement*

Kesitys provides its clients, market operators, with innovative financial mathematics tools that enable them to manage the risk of their derivative portfolios in an automatic and optimized way.

## *Founders*

**Mnacho Echenim** (Ing.,PhD,HDR), associate prof. at Grenoble INP Ensimag, resp. of Financial Engineering department. Expertise in computational finance and financial IS.

**Emmanuel Gobet** (Ing.,PhD,HDR), prof. at Ecole Polytechnique in Applied Maths and Financial Maths., resp. of Master II « Proba & Finance » : research on risks and optimization in general. Design of innovative algorithms for Gamma Hedging optimization.

**Anne-Claire Jeancolas** (Ing. Ensimag/IAE+HEC) : former IT manager for a trading desk (BNPP), project management, software development. HEC Entrepreneurship and Business Development Training.

## *Business Model*

Software publishers :

- Upfront (installation, integration) : 20 k€
- **Monthly license per portfolio : 2000€**

## *Market*

- ~320 Market Makers in Europe (~1 portfolio per trader)
- In an average portfolio : **15k€ of trading costs per month**

## *Our assets*

- **Ready and marketable software** for our first target: Market Makers for Equity and Index options
- POC realized in real conditions, **TRL 7**
- **30% reduction in trading costs** while maintaining a constant level of risk
- Automation = **20 hours saved**, per month, per portfolio
- Access to resources through university labs and networks (X, Ensimag, etc.)
- Powerful networks of former students (Master "Proba Finance", X, etc.)

## *Our objectives*

- Become the trading floor benchmark for derivative products risk hedging
- Provide 30% of Equity & Index Market Makers in Europe within 3 years
- Within 5 years :
  - ✓ **€6,7M turnover**    ✓ **40% of profit**    ✓ **~40 employees**
- Long-term vision: global development (North America, Asia), R&D for other financial products (currencies, commodities, etc.)

## *Our need*

Capital of €1.5M to allow the commercial acceleration and growth of Kesitys.

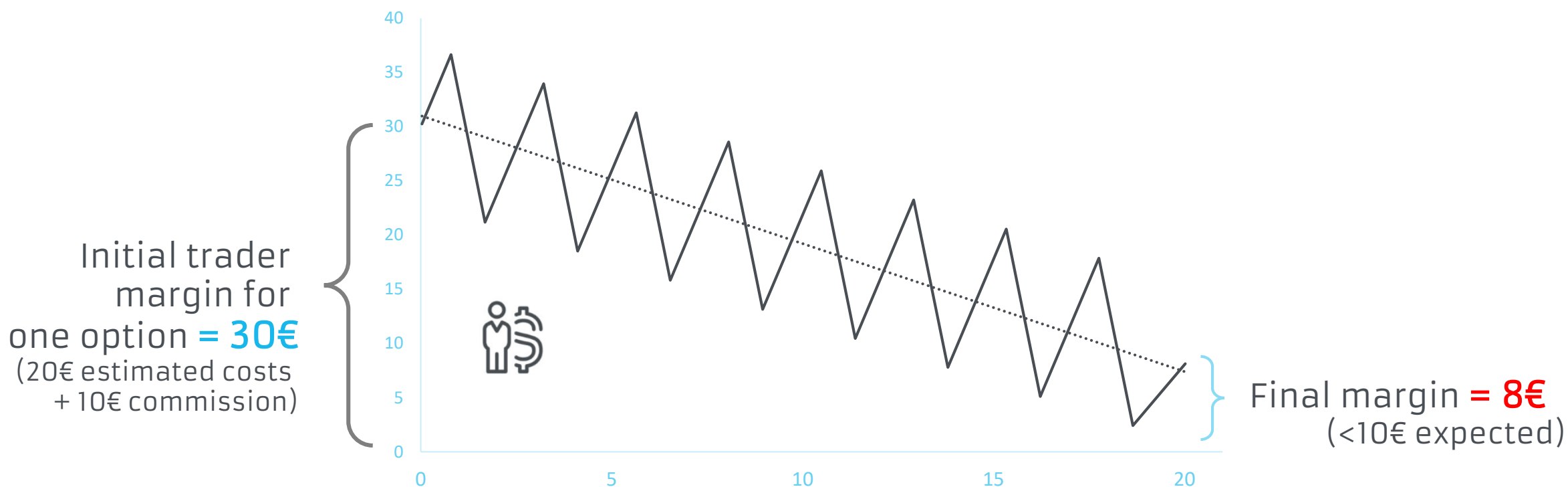


# Managing portfolio risks is too costly



« Managing portfolio risks costs too much money and time » \*

**1-month maturity option**  $\approx$  20€ estimated for risk hedging costs  $\approx$  1€ per day  
 $\approx$  1h per day globally spent on risk hedging



\* Market study carried out with various actors from Banks, Market Makers and Hedge Funds.

# TEMPO: optimal decision tool support



➔ TEMPO is a steering assistant that signals to traders the optimal times to hedge their risks

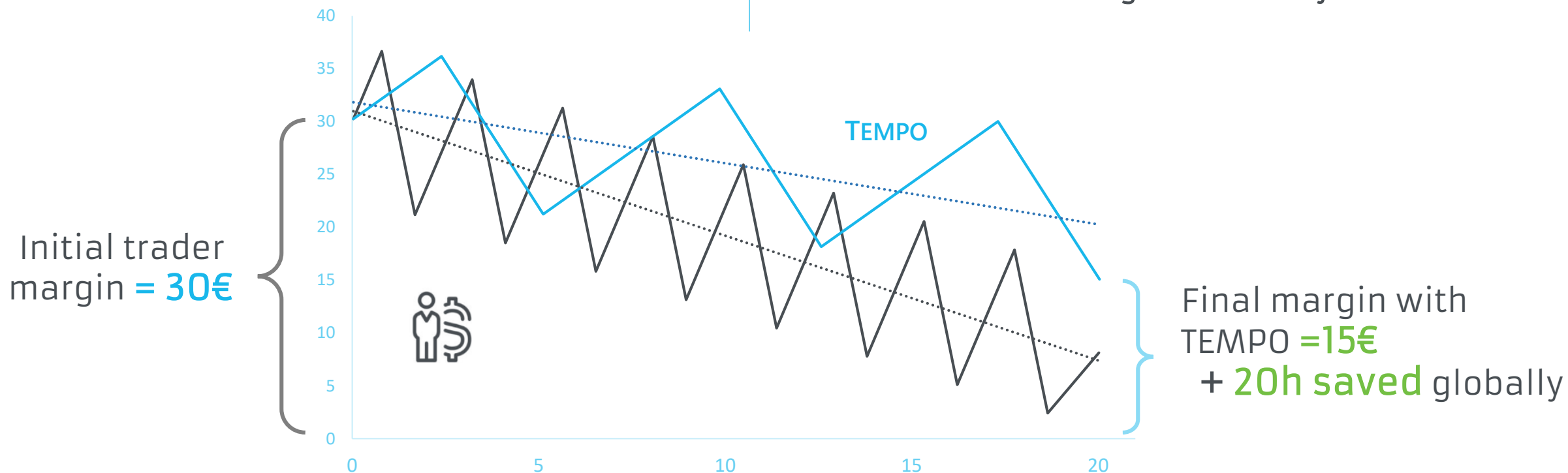
## Minimization of trading costs

Increases net P&L without  
increasing the risk level

30% costs reduction

## Risk hedging automation

Limits human hazards  
Allows to increase trading activity  
Saving of 1 hour/day



# An expert team



**Anne-Claire JEANCOLAS**

Co-founder & CEO  
Engineer in Math/IT/Finance  
IT manager on a trading desk (BNP CIB)



**Mnacho ECHENIM**

Co-founder & Scientific adviser  
PhD, HDR  
Associate professor at Grenoble INP Ensimag  
Co-head of « Ingénierie pour la Finance » (Ensimag -IAE Grenoble)



**Emmanuel GOBET**

Co-founder & Scientific adviser  
PhD, HDR  
Professor at Ecole Polytechnique (Applied Maths.)  
Co-head of M2 « Probabilité et Finance » (UPMC-X)



**Mourad Lassoued**

Product Manager  
Engineer in Math/IT/Finance, CFA  
Financial Expert (6 years), Société Générale CIB



## Advisory Board

### Scientific



**Nicole El Karoui**

French mathematician  
A pioneer in the development  
of financial math.

### Trading desks

**Pascal Poupelle**

*Crédit Lyonnais* US  
GM of *Calyon*  
CEO of *RBS* France & Benelux



### Entrepreneurship



**Jean-Claude Rassou**

Former CEO of *Motorola* France  
Strategy and business  
consultant.

# Competing approaches

## « *Close-to-close* » strategy

(hedging once a day at market close)

- + Automatic
- Suboptimal
- Non-adaptive

## Manual management

- + Adaptive
- +/- Subjective
- Manual
- Suboptimal

## Competitors

- Tools developed in-house for traders
- No known publicly available software

# An innovative technology ...



## Based on an optimal algorithm

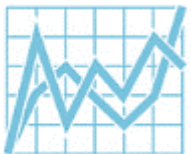
- The result of several years of research
- An innovation in financial mathematics
- **Performance confirmed on real-world tests**



## Automated and efficient

### « Plug and play » software :

- Real-time data processing
- Quick integration of our **RESTful API** into the trader's information system



## Data & Portfolio Driven

**Automatically adapts** to market conditions and trader's portfolio

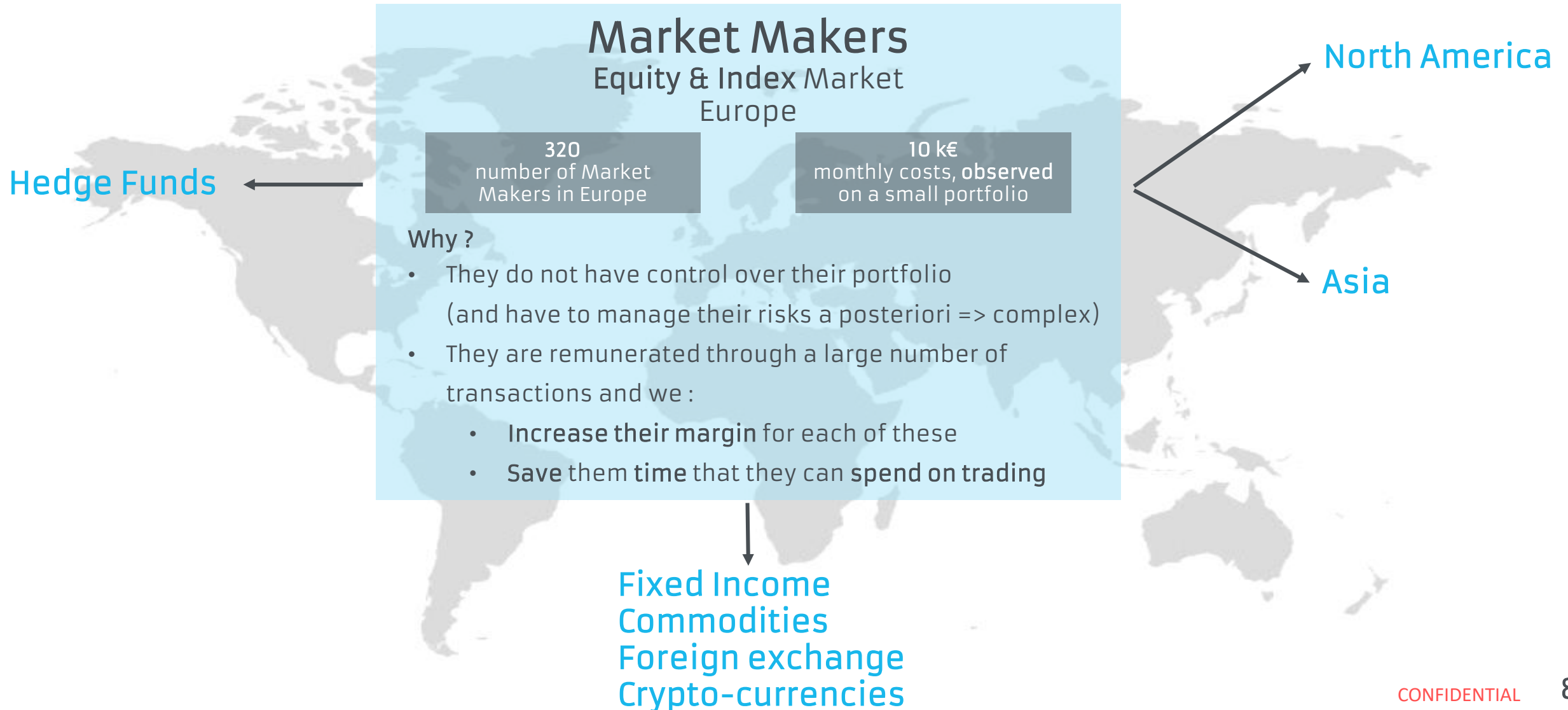
- ✓ Dynamic stochastic programming
- ✓ Statistical learning
- ✓ Time series



## Intuitive et customizable

- Immediate start up
- Simple and customizable ergonomics

# Early adopters and next customers





# Business Model : software publisher

Upfront

**20 k€**



Installation  
on site



Integration  
into IS



Training

License

**2000 €**

/ month  
trader



Recurring  
turnover

➡ Average monthly net gain\* for a trader

- 2500€
- 20 hours saved

# Objectives



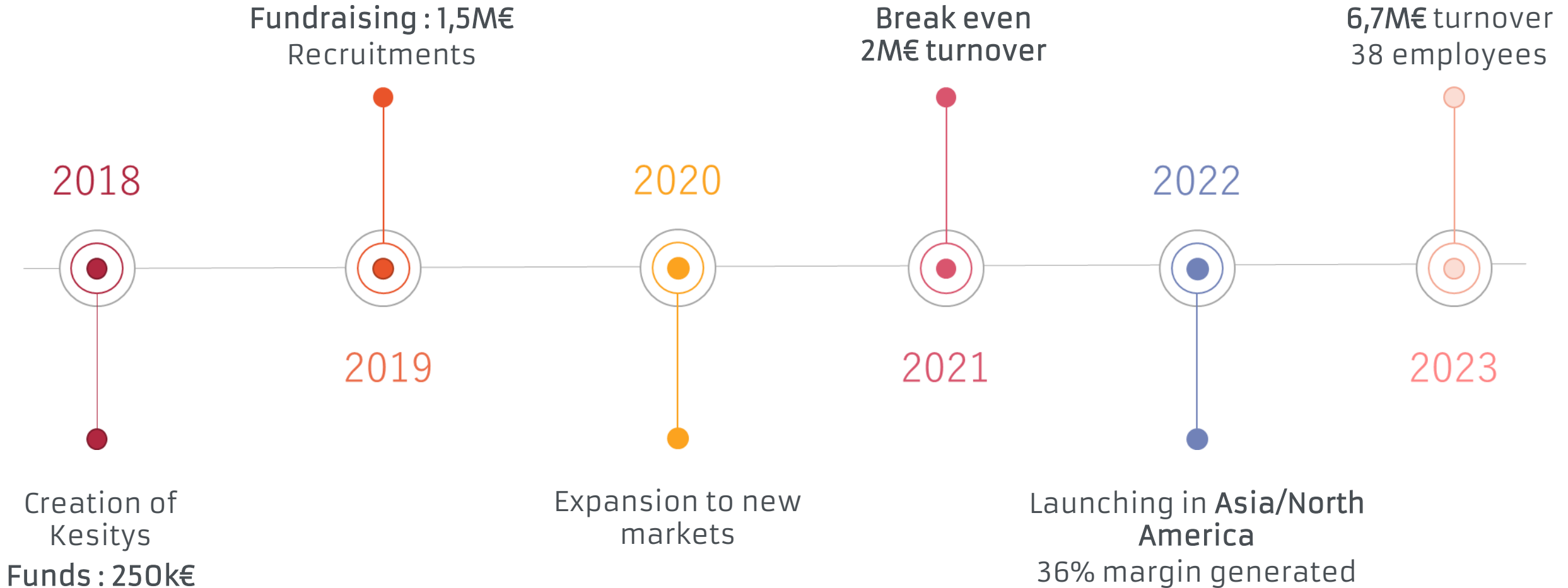
First objective: providing 33% of Market Makers in Europe within 3 years



What is next ?

- Commercialize to other actors (Hedge Funds, Banks etc.)
- Commercialize in other continents
- Develop TEMPO for other markets (commodities, forex etc.)

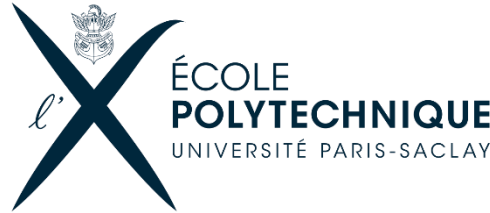
# Our vision



# Partners

We are working with :

- Research institutions
- Structures dedicated to entrepreneurship
- International cluster



And we are always **looking for new customer-partners** (to test our strategies, analyse our performance, etc.)



# Financing Plan

**For 2019:** beginning of commercial development

- 100k€ initial capital
- 155k€ raised in love money
- Government subsidies (ongoing : 50-100k€)

**~300k€**  
To start

**For 2020/+:** Capital of €1.5M for the commercial acceleration and growth of Kesitys

**700k€**

Customer &  
Technical  
support

**500k€**

Sales &  
International  
development

**300k€**

R&D



We aim for a **global and complete development**: to cover all actors, all markets, all exchanges. Our goal is to become the trading floor benchmark for derivative risk hedging.



Objective : becoming the trading floor  
benchmark for the risk hedging of  
derivative products

Need : Capital of €1.5M to allow the  
commercial acceleration and growth of  
Kesitys

For more information: [www.kesitys.com](http://www.kesitys.com)

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