

Develop -Players

Potential knows no limits





Fonte: MIUR

A Social Challenge



The 15% of students presents a **Specific Learning Disorder**



Many students are still undiagnosed and this causes important problems in adolescents



Poor collaboration between Family, School and Specialists



Existing Solutions



Focused only on the disorder and not on the person potentials



All Treatments equal for all students with very low engagement



Very expensive and only for a few



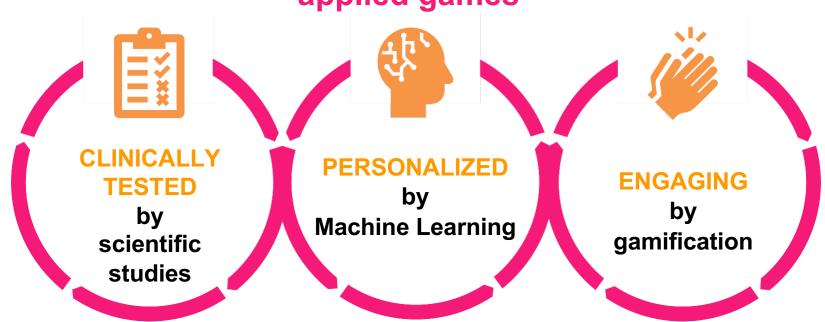
Vision

We dream of a world where everyone can be top of the class

Form "Dead Poets Society", 1989



... it's a web based platform including different applied games



STEP 1

PROFILING GAME



Fast screening in 20 minutes



Multiple cognitive functions evaluated



Validated by standard clinical trials



Proffilo – Game for screening and profiling

STEP 2

APPLIED GAMES FOR COGNITIVE TRAINING

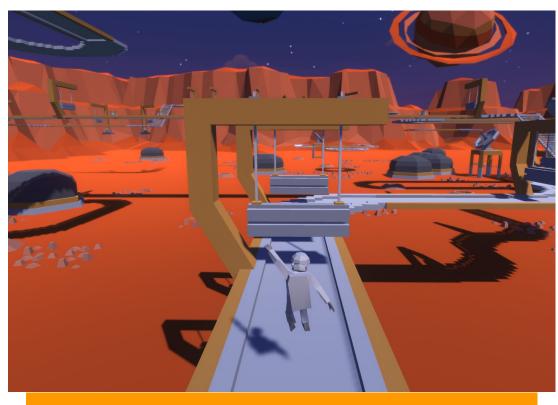


Specific for different cognitive functions: executive functions, language, memory, problem solving, visual perception



Play in autonomy by Machine learning based controlling system





Eye Riders – Game for training executive functions

BUSINESS MODEL



From 2022

B2B - School

From 2023

B2B - Specialist

From 2024

B2C - Family

BUSINESS MODEL B2B

For Primary and Secondary Schools

SaaS licencing

+

Training for teachers



BUSINESS MODEL B2B

For Psychologists and Speech Therapists

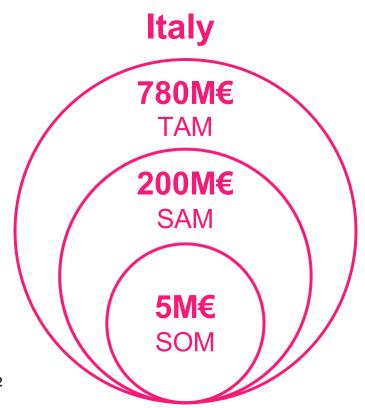
SaaS licencing



Market

- Game-based learning market CAGR 21.9% 29.7B (2026)
- 2B€ from Italian GovernmentPnrr Futura fundings

Ref: Miur, 2022; Istat, 2022; Fortune Business Insight, 2021; Pnrr Futura 2022



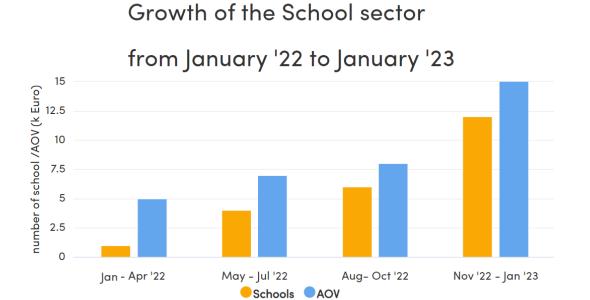
Competitors

GAMING BASED



AUTOMATIZED PERSONALIZATION

Traction





Social Impact



COGNITIVE TRAINING

+5000 students participated in the screening sessions +100thousands hours spent in playing games



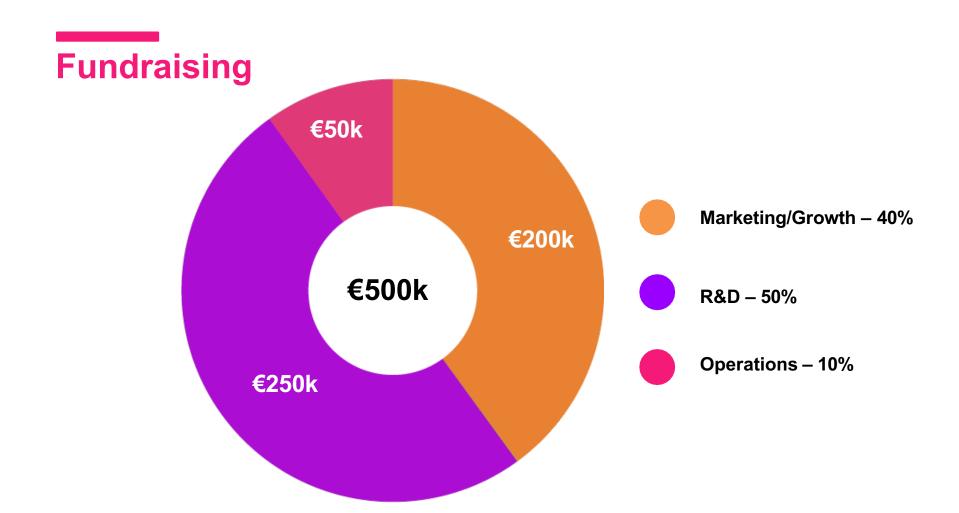
TRAINING NETWORK REGENERATION

+70 Schools +700 teachers +1000 hours training

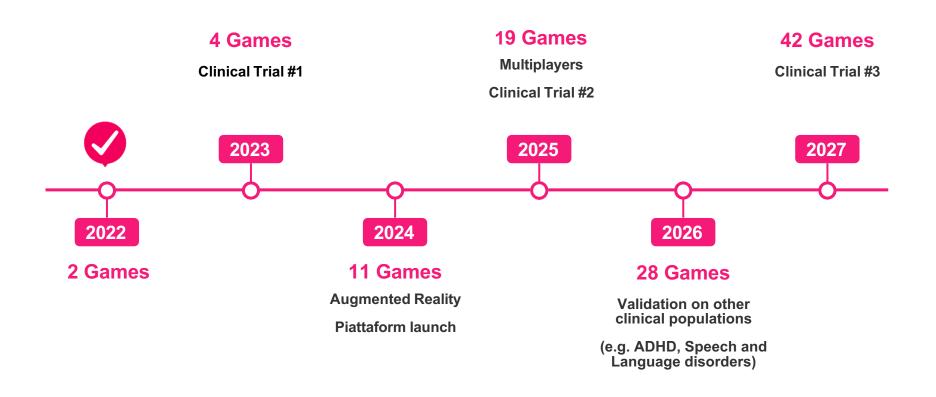


SOCIAL INCLUSION

+5% students recognized and reported to specialists to start the diagnostic protocol

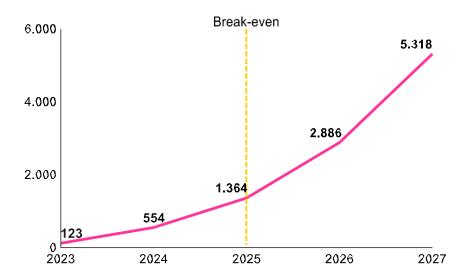


Milestones/Roadmap



Financials

Revenue



(000€)	2023	2024	2025	2026	2027
Revenue	123	554	1,364	2,886	5,318
EBITDA	(133)	(50)	258	897	2,097
EBITDA Margin (%)	(108%)	(9%)	19%	31%	39%
FCF	(202)	(205)	(18)	427	1,212

Team



Formica
CEO
Economics, Bocconi
Ex-Bain, Amazon

Luca



Benassi
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Psychometrist, PhD
Associate Prof Unibo

Mariagrazia



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Sara



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Association Speech
Therapists

Partners & advisors











Almacube and University of Bologna, Partner & Advisor SocialFare, Partner & Advisor Art-ER, Advisor RomagnaTech, Advisor



Develop-Players

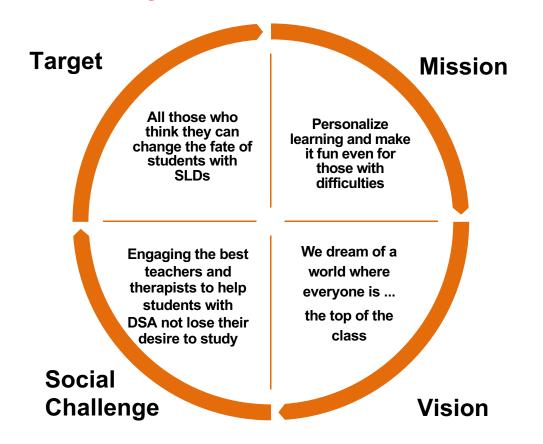
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Backup

Brand identity



PRODUCT

SIMPLE

UniQUE

Tailored

Fun

VALUES

Trust

Care Innovation

Scientific basis

Reliability

Inclusiveness

PERSONALITY

Positive

Humble

Welcoming

Persevering

Ambitious

Value chain

- Team working hours
- Team training hours
- Team building hours
- Number of games
- Capital invested

Input

Activities

- Cognitive profiling for students
- Screening for students
- Psychological supporting activities for students, families
- Production of informative workshops webinars and online materials for teachers, families and therapists
- matching activities
 between therapists and
 schools and therapists and
 families

- # students and teachers and therapists reached
- •# of schools connected
- •# of games sold
- •# of schools contacted
- # of families connected with therapists
- Custumers' satisfaction
- Custumers' cognitive advantages
- Custumers' wellbeing advantages
- # of teachers, therapists and parents trained

Output

Outcome

- Increasing awareness in students, teachers and therapists
- Increasing wellbeing and selfefficacy
- Increasing cognitive skills
- Increasing self-esteem
- increasing teachers' and therapists' and parents' network
- Increasing teaching competences
- Increasing teachers' involvement in students'learning processing
- Increasing functional use of digital games

- Diminished school dropouts in students
- Increasd social inclusion
- •Improve Personalized interventions
- Improve educational opportunities
- Decreaed stress in healping professions
- Diminished psychopatological risk in adolescents and young adults
- •Increased expectations toward the future
- improved socioeconomic opportunities
- Improved collaboration between school -family and services

Impacts

Social impact areas





	Output	Outcome
Cognitive	Game usage – solo mode	Improving cognitive
training	Game co-design activities	and emotional skills
Social Inclusion	Game usage – at school, multiplayers	Increased sharing opportunities and acceptance of the self
Regenerating of learning network	Traing for teachers, therapists and parents	Improving the quality and # of interactions



Social impact metrics

Cognitive training	Number of users increasing cognitive skills	Number of users with an increased wellbeing	Numer of teachers have increased their own educational competences
	N=5000 students a year	Estimation 90% improved wellbeing	N =700 (2022)
Social Inclusion	Number of SLD students recognized	Number of students sharing experiences	-
	100% SLD students recognized (2022)	N=5000 students in a year, 80% from school (2022)	
Regenerating of learning network	Number of teachers families therapists and trainees participating in the training	Number of teachers, therapists, family collaborating in the Community in co- designing games	-
	N=700 teachers (year 2022), estimation for the future N=1000 per year	Estimation 20% per year	

Validation of interest

<u>Interviews with parents of students with SLDs:</u> 20 out of 22 are very interested in the use of new technologies as an aid for their child; 22 out of 22 believe a strong connection with the school is essential.

The Develop-Players Project is very interesting for psychologists working with schools and can help to use the data collected and make clinical sense of it.

Andrea Bilotto, Psychologist

In the end it is the teacher who has to accept my child's learning disorder! A parent

We need tools and trainings to understand what to do for studends with SLDs ...Otherwise everything is just out of sense! a teacher

Specific Learning Disorders (SLD)

...A life-long problem...

The 15% of students have a SLD.

SLDs smanifest in school but persist throughout life, translating into high economic and social costs.

... heterogeneous manifestations...

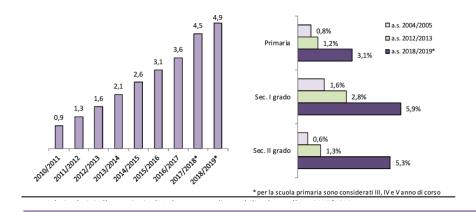
Each individual with SLD has unique cognitive profile, and outcomes can be very different, requiring individualized intervention.

... with an important impact on society

Cognitive difficulties are associated with other problems and impact not only the affected person, but also on his or her personal environment (family, school, friends).

How many students have a SLD?

- Official estimates in Europe and the United States indicate a prevalence of 15 percent of students diagnosed with a learning disorder.
- In Italy, the problem is emerging today with exponential increase in diagnoses each year.



SLD students in Italy	тот.	SLD	Other Learning disorders	
Primary school	1,595,829	47,875	79,791	
Secondary school	1,706,482	107,508	85,324	
Secondary high school	2,730,359	172,013	136,518	
TOTALI	6,032,670	327,396	301,634	
Ref: https://dati.istruzione.it/espscu/index.html?area=anagStu				

Existing solutions

Recent interest in telerehabilitation has improved several solutions for profiling and rehabilitation of SLDs based on serious games that are accessible online.

Features

Existing applied games for SLD are:

- Poorly centered on the person who has to use them
- Standard and not flexible
- Managed entirely by the specialist who constantly monitors the progress of the enhancement and decides what to do next
- Not very fun compared to games used by youths today

Consequences:

- They do not promote autonomy
- Low effectiveness
- Poor engagement
- High drop-out of treatment
- Fragmentary nature of the intervention

Develop-Players Unique Value Proposition

Develop-Players is a web based platform where to find applied games and Services for students with learning disabilities (students with SLD or other special needs)

In Develop-Players several applied games are developed to enhance specific cognitive functions underlying learning: attention, memory, problem solving, visual perception, executive functions, language, and emotional skills.

The games are easily remodelled for other clinical populations because they are based on cognitive functions implicated in various neurodevelopmental disorders and because they are based on procedural generation of game components

Each game is verified through scientific research with respect to machine learning model efficacy and with respect to clinical efficacy. This scientific and clinical validity is assured by University of Bologna revision protocols and Opedale Bambino Gesù clinical protocol.

Each game is created to have a strong level of engagement and fun.

Academic Research to support the scientific and clinical validation of games

Three areas of research

Validation of the two machine learning models applied in the games (for profiling and training) .

Evaluation of the clinical efficacy of cognitive enhancement games tested on populations with SLDs and on controls in a randomized controlled trials.

Study of gamification techniques used in the training that maximize the gaming experience.

Preliminary researches

For the Proffilo, the cognitive profiling game.

- 1. Validation study of machine learning model for cognitive profiling applied to the Proffilo game (Article under review in the scientific journal Helyion).
- 2. Research study on Unsupervised and supervised learning algorithms for accurate classification of cognitive profiles published in the Proceedings of the International Meeting of the Psychometric Society (IMPS) 2022. Authors Orsoni M, Benassi in M
- 3. Validation of Cifra the online checklist associated with Proffilo for screening of SLD (published in Frontiers in Psychology)

Preliminary evidence on Machine Learning approaches for clusterizing students' cognitive profile Matteo Orsoni¹, Sara Giovagnoli¹, Sara Garofalo¹, Sara Magri¹, Martina Benvenuti¹, Elvis Mazzoni1, and Mariagrazia Benassi1 1 Department of Psychology, University of Bologna frontiers ** **Preliminary Validation of the CI-FRA Checklist: A Simple Screening Tool** for Measuring the Early Signs of Reading and Spelling Disorders in **Italian Primary Students** Sara Giovagnoli^{1*}, Luigi Marotta², Sara Magri¹, Michela Muccinelli³, Alessandra Albani¹, Giulia Casu¹, Sara Garofalo¹ and Mariagrazia Benassi¹ ment of Psychology, University of Bologna, Bologna, Italy, ² Bambino Gesù Children Hospital (IRCCS), Rome, Italy ⁹ Azienda Unità Sanitaria Locale (AUSL) della Romagna, Emilia-Romagna, Italy

Ongoing and Planned Searches

Three studies in progress.

- Psychometric validity and standardization of the Proffilo game.
- Evaluation of the clinical efficacy of Eye-Riders tested on populations with SLDDs and on controls in a randomized controlled trial (preliminary results were presented in 3 dissertations discussed in the Department of Psychology at Unibo).
- Research planning on the evaluation of the clinical effectiveness of ThunderDrive and TrackTheCap.

Road Map Games

Emotions

2023 2024 2025 2026 Proffilo **Proffilo Lang** Proffilo ADHD Screening & Screening. Language Screening Screening ADHD profiling **Eve Riders** TocTheHole-1 **Attention ThunderDrive** SpoonForkKnife-1 **FreeBikers** MapTheTrack Memory MemoStick NuovaFra Jargon Map ToyAtTheMarkt DroppingDrill Language MarkAtTheCat Terry Jelly-1 Terry Jelly 2 **JumpParadise** Psy4Fly Executive SpeedyFlame CatchTheGrub **functions** TatooRapper Mover Sandy **TwistedRope** Visual EyeBalls perception perceptual **Planets** Math abilities

2027 Proffilo Emotion Screening Emotion TocTheHole2-SpoonForKnife-2 SpeedyFlame-2 #6 Games Orbit

#4 Games Octopus

Market - Italy

Schools



- 35k schools X €1500 (TAM €52.5M)
- 80% sufficient connection(SAM €42M)
- We aim to obtain the 2% in 5 years (SOM €1,2M)

Families



- 6M students X €100 (TAM €1,2B)
- 10% SLDs (SAM €120M)
- We aim to obtain the 1,6% in 5 years (SOM €2,4M)

Psychologists and Speech Therapists



- 133K of specialists X €1000 (TAM €133M),
- the 65% is tech sensitive (SAM €86M)
- We aim to obtain the 2% in 5 years (SOM €1,7M)

Ref: Miur, 2022; Istat, 2022; Fortune Business Insight, 2021

Business Model - family

Modello B2C

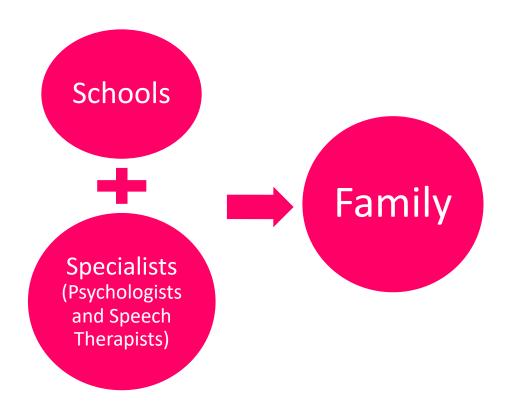
he sale of games is catalogbased on bimonthly license that can be purchased with or without the mediation of the specialist (Psychologist or Speech Therapist)



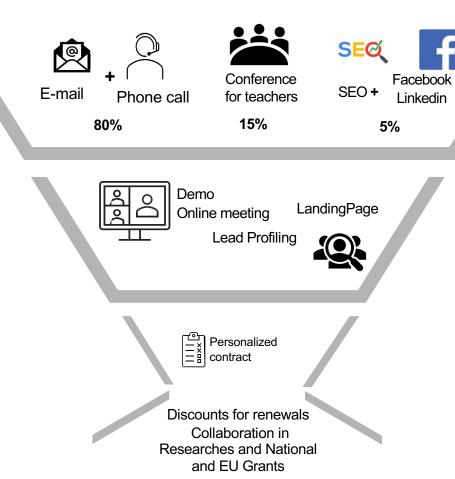
Base price per single game With possibility of Add-on activation

Custumer acquisition Model

Ecosystem of relationships that connect School and Families and Families and Specialists and Schools and Specialists that enable faster outreach to families.



Funnel Schools



Funnel Specialists



Community
Collaboration in researches
and publications

Funnel Families













Facebook TikTok

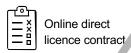
10%

70%





LandingPage



Community discounts Early adopters **Testimonials**

Competitor

- Low engagement

The games are not fun, they only use graphic but not gaming strategies

- Fragmented games

No entire vision of the disorder, each game is developed per se without a global vision

- Only for children

11-18 years are excluded



Example of game for SLD from Erickson SPA

Competitors in Italy, Eu and US

Italy EU - World **Develop-Players** Erickson **Anastasis** Deepwell Akili Sghartoon 2012 2020 Cognitive profiling UI UX design **Machine Learning Report Analytics Training** Psychological support All ages model

Financials

	2022	2023	2024	2025	2026	2027
Revenue	14,450	123,670	554,026	1,364,678	2,885,869	5,318,381
Revenue Psychol & SpeechTher		54,821	183,593	428,662	776,992	1,225,235
Revenue Schools	14,450	68,850	235,236	521,926	1,052,556	1,716,774
Revenue Family		0	135,197	414,090	1,056,321	2,376,372
Opex	(800)	(2,645)	(82,791)	(216,902)	(471,495)	(925,410)
First margin	13,650	121,026	471,235	1,147,776	2,414,374	4,392,971
Marketing Expenses		(21,800)	(54,900)	(133,500)	(580,000)	(1,084,000)
Personal Expenses		(189,000)	(412,500)	(668,400)	(952,740)	(1,237,856)
R&D		(15,300)	(26,400)	(42,000)	(70,500)	(132,000)
Capex		(15,800)	(27,400)	(46,000)	(95,400)	(146,000)
EBITDA		(120,874)	(49,965)	257,876	715,734	1,793,116
EBITDA Margin%		-98%	-9%	19%	25%	34%
Amortizatioin		(12,057)	(36,577)	(68,357)	(92,397)	(115,698)
EBIT		(132,931)	(86,542)	189,520	623,337	1,677,418
Interests		0	0	0	0	0
EBT		(132,931)	(86,542)	189,520	623,337	1,677,418
Taxes		0	0	(56,856)	(187,001)	(503,225)
Operating profit		(132,931)	(86,542)	132,664	436,336	1,174,193

Financials

EBITDA		-120,874	-49,965	257,876	715,734	1,793,116
Taxes		0	0	-56,856	-187,001	-503,225
Selffinancing		-120,874	-49,965	201,020	528,733	1,289,891
NWC Changes		-8,643	-31,647	-59,864	-103,687	-170,617
Capex		-60,283	-122,600	-158,900	-120,200	-116,507
Free Cash Flow		-189,800	-204,212	-17,744	304,846	1,002,767
Interests		0	0	0	0	0
Delta debiti MLT	0	0	0	0	0	0
Delta Equity/Dividends	35,000	0	0	0	0	0
Net Cash Flow	35,000	-189,800	-204,212	-17,744	304,846	1,002,767

Dashboard

School segment

Lead Conversion Rate	9%	+5% from Oct '22 to Jan '23
Client Conversion Rate	14%	stabile
Revenue	17.600€	+6%
CAC	233€	-287€
CAC to Revenue	21%	-55€
Cost per lead	7€	-18€
LTV/CAC	10x	+5x
AOV	1100	+4%

Note Assumption LTV 2 games a year for each school Retention Rate ~80%

Scale up strategy

Machine learning adaptive model

Adaptable Gaming model

Fun + Scientific validity

Games could be used for every students because they are founded on universal cognitive processing



Broaden market

Scalability e versatility

Unique Value proposition

of the product





- 1. Extend the type of users in 2025: from Specific Learning Disorders to other developmental disorders sharing the cognitive profiling (e.g. language disorders, Autism, ADHD)
- 2. From Italian market to other international market (from 2027)