AAL PROGRAMME

eWare

"Early Warning (by lifestyle monitoring) Accompanies Robotics Excellence"

Consortium:

Vilans, sensara Smart Monitoring Solutions, tinybots, ZZG zorggroep, ascom, INRCA Istituto di Ricovero e Cura a Carattere Scientifico HEALTH AND SCIENCE ON AGING, Università Politecnica delle Marche, JEF Knowledge Applications, terz Stiftung, NTNU, Stjørdal kommune

sensara

Smart Monitoring Solutions

tinybots

Lessons learned

- PoC demonstrated potential
- Not all participants needed full system
- Need more development (incl. implementation)
- Faster sensor signal without delay
- Potential in connecting existing solutions

Current status

- Business case is being validated by Vilans
- Pandemic has slowed the development eWare
- Implementation strategy:
  start with one, add other
- Tinybots system for more integrations

Tessa (current version)

GLOBAL DETERIORATION SCALE (GDS):

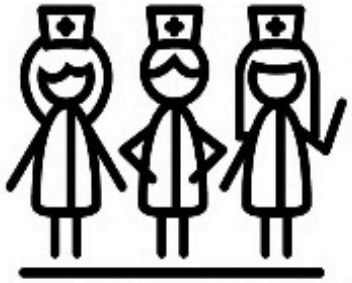
stage 1 (N/A)	stage 2 (unknown)	stage 3 (2 - 7 years)	stage 4 (2 years)	stage 5 (1.5 years)	stage 6 (2.5 years)	stage 7 (1.5 - 2.5 years)
no dementia	MCI	Early stage dementia		Mid stage dementia		Late stage dementia

SYMPTOMS:

- Normal functioning	- Forgetfulness - Slight difficulty concentrating	- Increased forgetfulness - Difficulty concentrating - Short-term memory decline - Difficulty completing tasks - Socialisation problems	- Increased forgetfulness - Difficulty concentrating - Short-term memory decline - Difficulty completing tasks - Socialisation problems - Loss of time & place orientation - Long-term memory decline - Personality & emotional changes - Anxiety - Delusions - Difficulty with speaking	- Severe loss of memory - Loss of motor skills - Require help with most activities

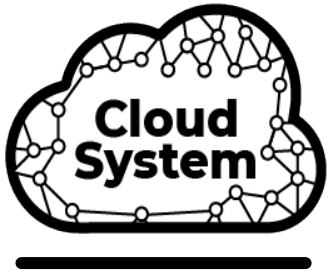
SUPPORT NEEDED:

No support needed	**Support daily management** - Daily structure - Occasional reminders	**Support self-reliance** - Daily structure - Occasional reminders - Social cues - Regulate eating & drinking habits - Medicine management - Personal hygiene - Daily monitoring of well-being check	**Support self-management** - Increased need for daily structure - Regular reminders - Social cues - Regulate eating & drinking habits - Medicine management - Personal hygiene - Daily monitoring of well-being - Physical health - Verbal guidance ADL's - Advanced intention & speech recognition - Emotional support	**Comforting and sensory stimulation** - Play favorite music at schedule - Reminiscence of past memories and life stories - Connection with family



100+

organizations (NL)



160.000+

days of user datapoint of effective interventions

1500+

Tessa robots sold

3+ year

database of long term interaction

*Profitable business and reimbursement by insurers in the Netherlands

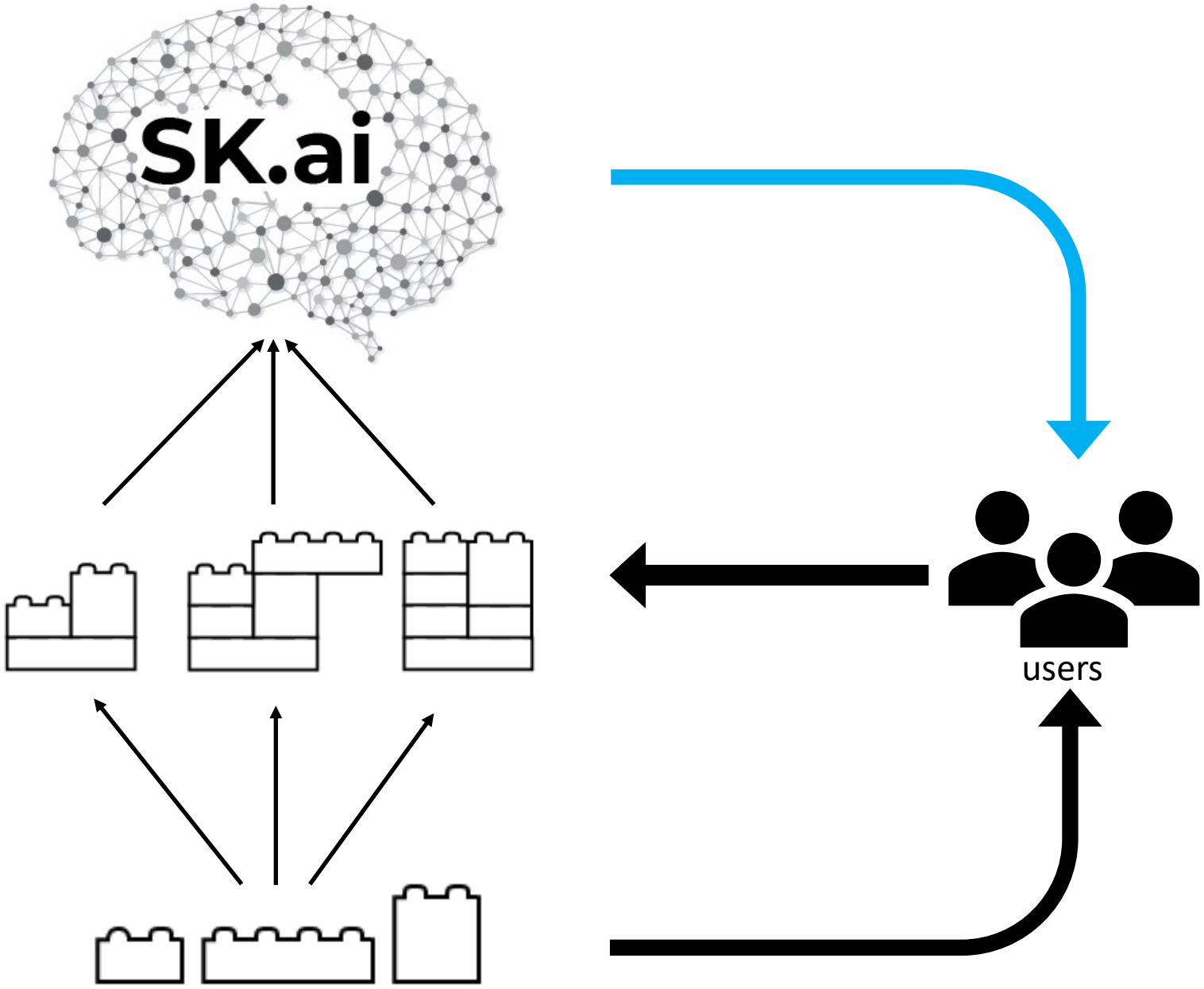
More implementation during 2020, technology is even more relevant during the pandemic…

[NEXT STEP]

Artificial Intelligence:
Recommends interventions

User generated scripts:
Shared on platform
Database for training model

Elementary script-blocks:
Intuitive to build interventions



[TECHNOLOGY]

- **Better interventions recommended**
- **Evolves with user needs**
- **Accelerate product adoption**

Tessa 2.0 (SK.ai)

Tessa (current version)

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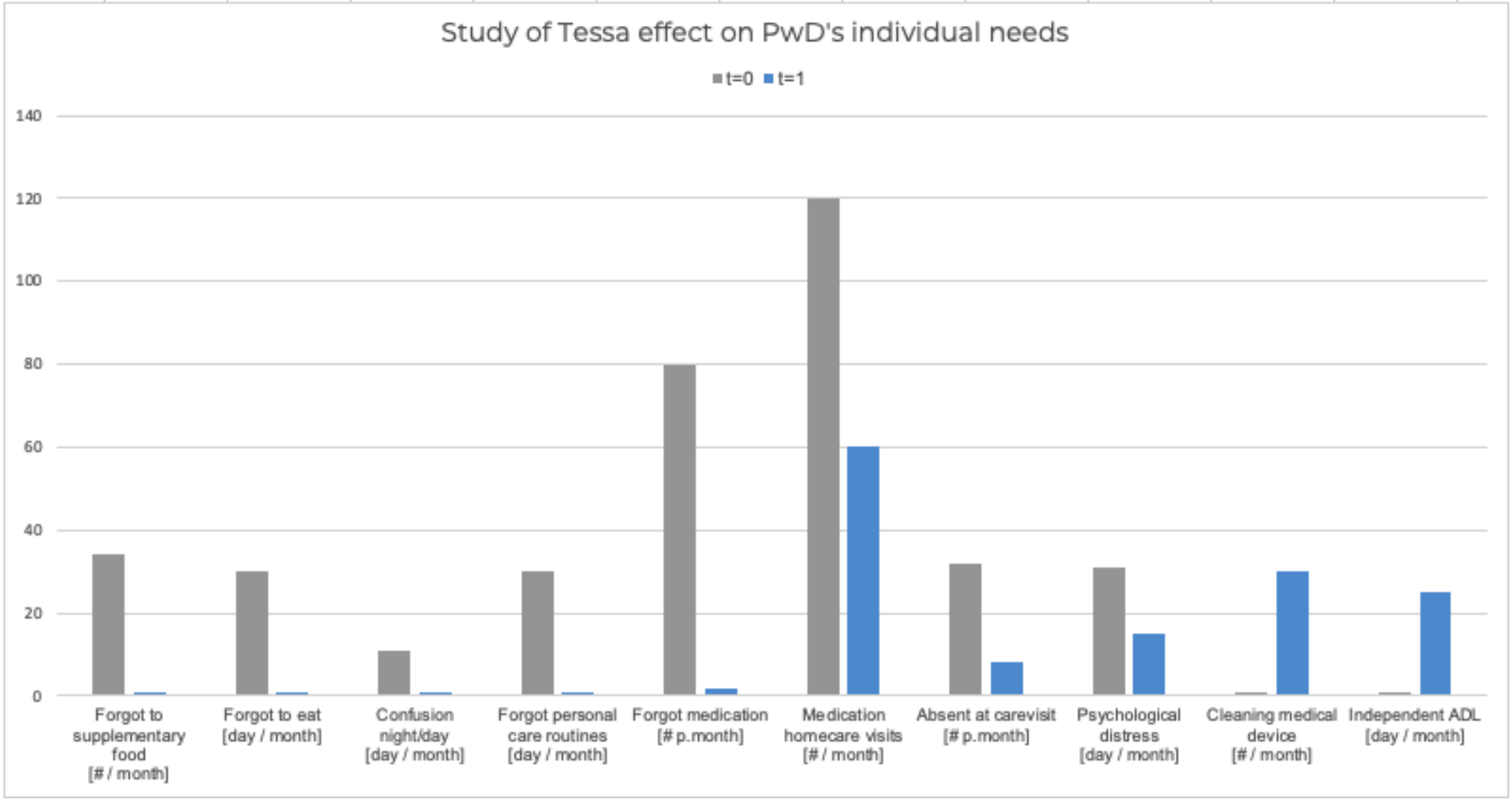
”With Tessa I regain autonomy and can live in my own home.”

contact: wang@tinybots.nl

CARRIER
100%
BEVESTIGING TAAK
Thuishulp: boodschappen
Dinsdag 23 mei 2017
11 : 00
Relevant tot: 11:15
Herhalen
11:05 / 11:10 / 11:15
di - voor onbepaalde tijd
Tessa zegt
Goedemorgen Annie. Het is bijna kwart voor 11. Rita van de thuiszorg komt over een half uurtje langs. Heeft u al uw boodschappenlijstje geschreven?
TERUG
BEVESTIGEN

“As his sister, I feel more relieved that he is doing well. I receive less stress calls about things he forgot or went wrong.”
“My client is happier, and don’t need me in the morning for medication and personal hygiene.”
“I can do more by myself and feel less of burden to my family.”
Substitute homecare tasks
Help to provide the required care (despite personnel shortage)
Avoid complications



* Measured at beginning and after 2 months and 6 months. Lasting effect.

PATIENTS

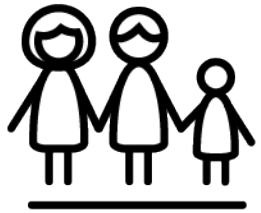
Voice interaction
& verbal guidance

Feel more independent

More confident

Improved wellbeing

Reduced need for professional care



INFORMAL CAREGIVERS

Reduce costs & alternative solution for shortage of healthcare professionals

HEALTHCARE PROFESSIONALS

Via app delegating tasks & monitoring if tasks are done

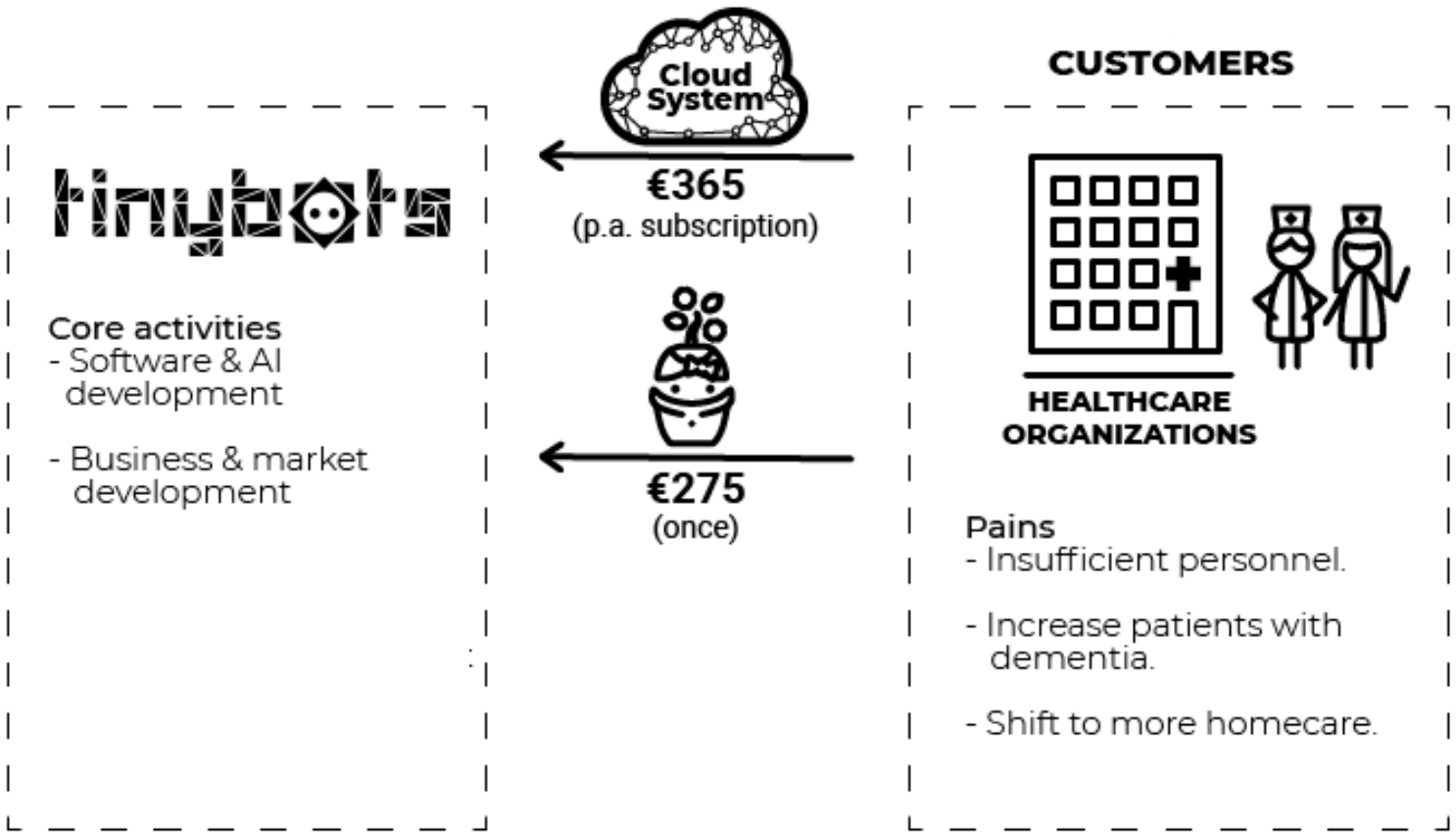
Relieve workload, stress and conflicts

Higher personalised quality of care

Job satisfaction

Availability of support

[BUSINESS MODEL]



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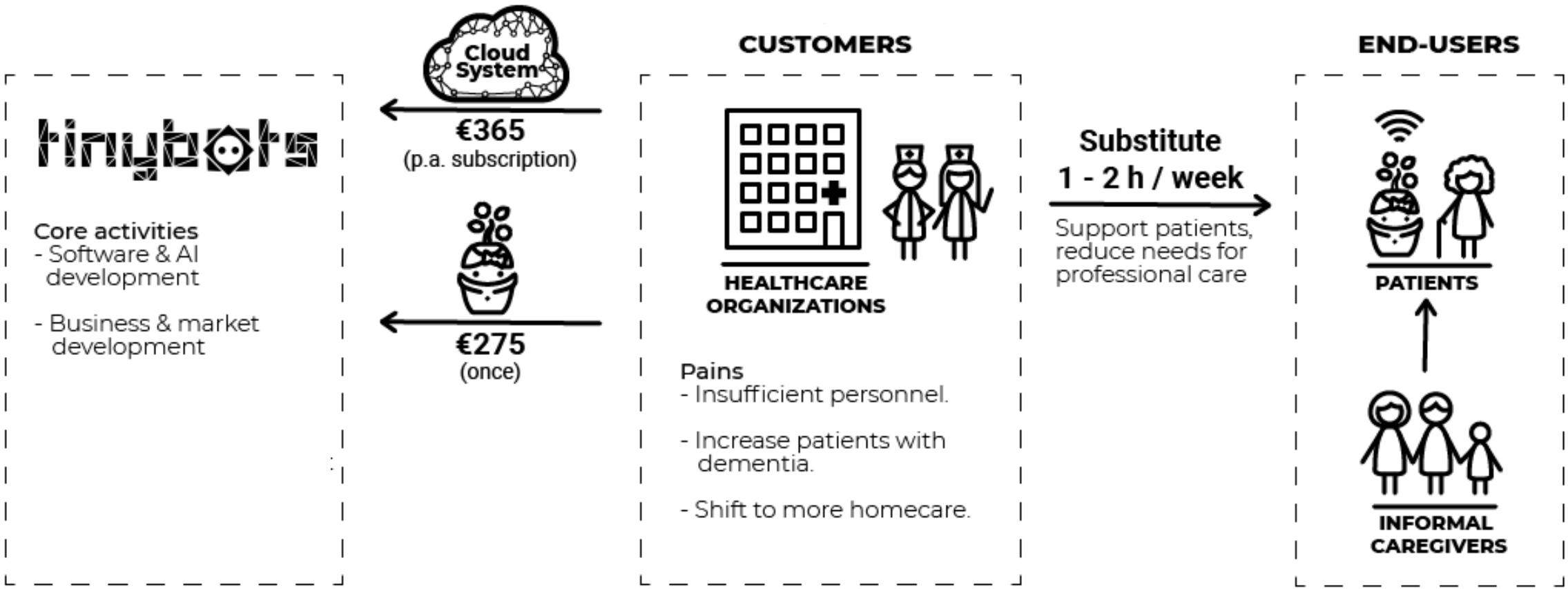

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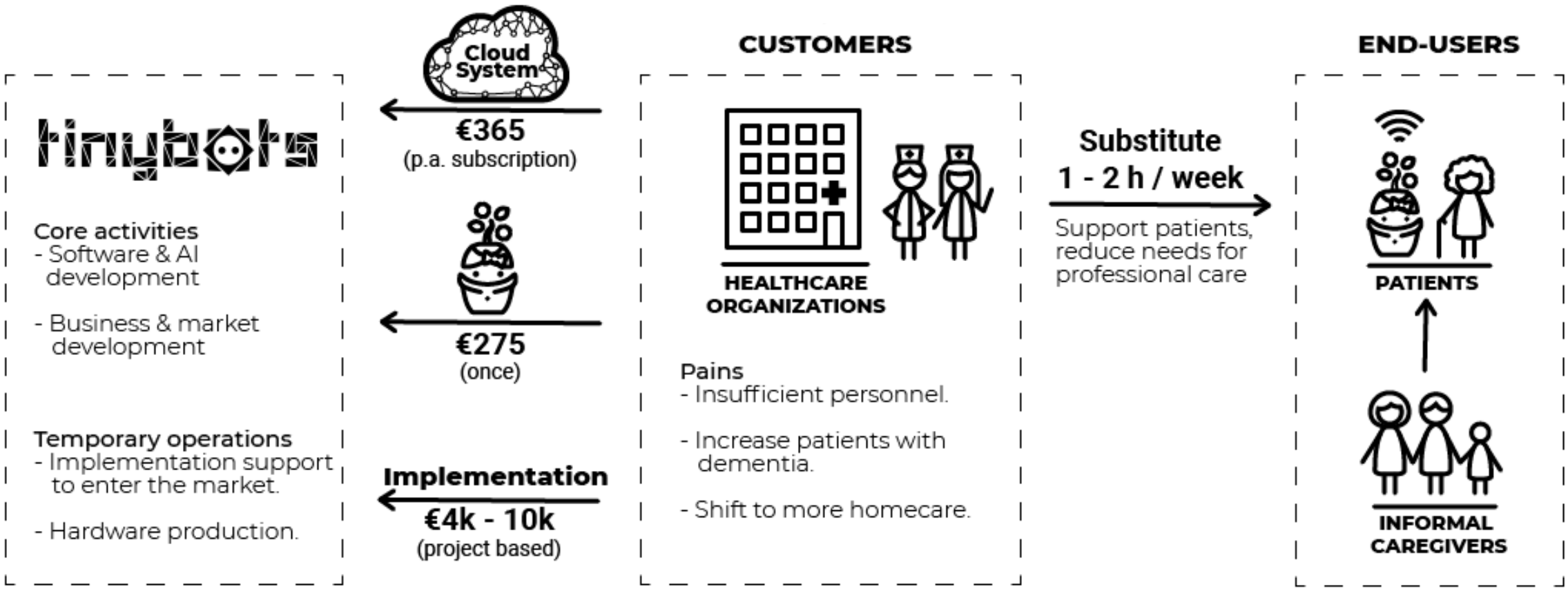


[BUSINESS MODEL]

tinybots

Core activities
- Software & AI development
- Business & market development

Temporary operations
- Implementation support to enter the market.
- Hardware production.

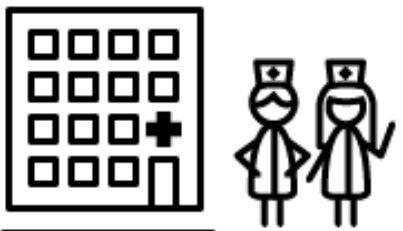
80+% Gross margin on subscriptions

€365
(p.a. subscription)

€275
(once)

Implementation
€4k - 10k
(project based)

CUSTOMERS



HEALTHCARE ORGANIZATIONS

Pains
- Insufficient personnel.
- Increase patients with dementia.
- Shift to more homecare.

Cost of personnel €50 - 70 ph.
Breakeven saving 15 min/week.

Substitute
1 - 2 h / week

Support patients, reduce needs for professional care

END-USERS

PATIENTS

INFORMAL CAREGIVERS

80% accepts
90% improvements
Use 6 - 36 month

[BUSINESS MODEL]

HEALTHCARE AUTHORITIES

Reimbursement
Accelerates adoption in the market

CUSTOMERS

END-USERS

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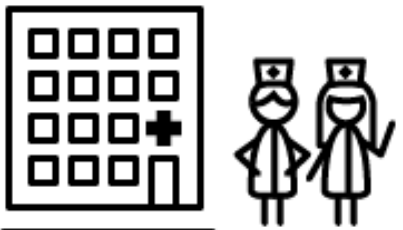

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