

# Implementation & upscaling ..of the AAL-solution ROSETTA

www.vilans.n

datum 28th september door Johan van der Leeuw

### Who is Vilans?

- Dutch National Expert center for the longterm care
- Supporting care organizations
- Partner in the AAL-projects:
- ROSETTA: 2009 2012
- Happy Walker: 2012 2015
- Palette V 2.0: running
- Mainly as workpackagemanager for WP trials & evaluation

# AAL-project ROSETTA 2009 - 2012

- Targetgroup: at home living people with dementia during the whole dementia-process
- The whole system is adaptable to the stage of dementia & following the dementia process. Plus: on one framework
  - Mild dementia: Day Navigator -> giving structure in the day, active reminders
  - Moderate dementia: Early Detection System (EDS) -> lifestylemonitoring by a network of sensors & trendanalysis software
  - Severe dementia: Unattended Autonomous Surveillance (UAS)-> network of sensors & surveillance software for falldetection.

### May 2012: and then?

- During and direct after the project two commercial partners were not interested anymore in commercialising the system
- But: the project was coordinated by TNO, a Dutch large governmental financed R & D organisation -> i.e. Fraunhofer in Germany and Austrian Institute for Technology (AIT).
- In 2012 TNO was asked by the Dutch ROSETTA-partner and careorganization Zorgpalet Baarn-Soest to develop a residential version of the UAS-surveillance part of ROSETTA -> for the nursing home setting, dementia care.

-> Project UAS – Kleinschalig GroepsWonen, financed by a Dutch regional government, 2012 - 2013

# Start up: Dutch Domotics

- The next episode: the coordinator of AAL-project ROSETTA from TNO decides to start a company -> Dutch Domotics
- With as initial core product the UAS –residential version for nursings homes
- And NOT for instance the orginal UAS surveillance for at home living people with dementia.
- WHY?

UAS residential /nursing home version has a positive businesscase for the care organization. The UAS for home dwelling people has a positive SOCIAL businesscase, but is not positive for the care organization

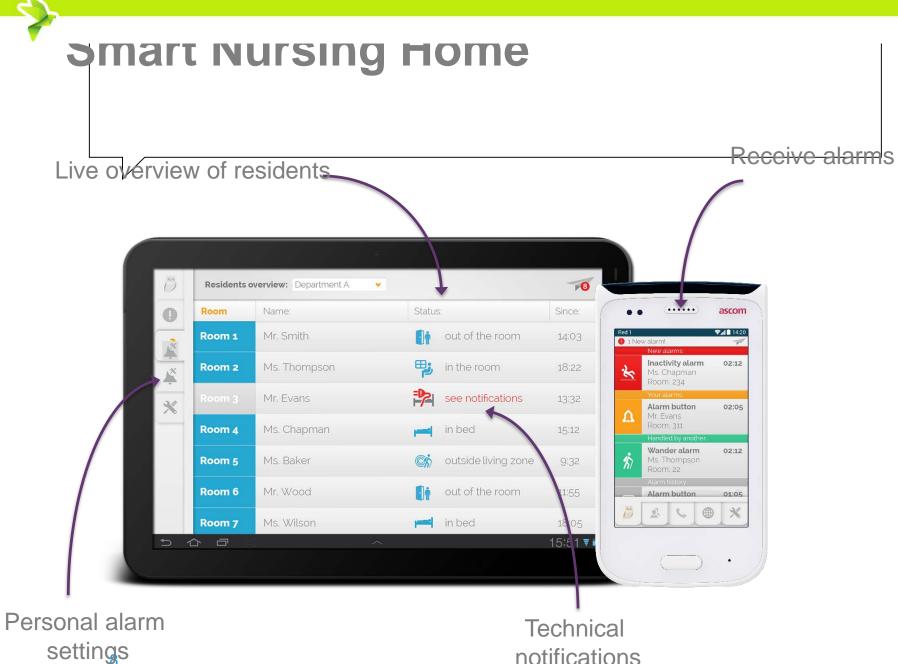
# Market introduction failed in first instance

- In 2014 market introduction failed: to limited market penetration in a closed Dutch Market for residential care technology
- Vilans had a meeting with the market leader in The Netherlands for nurse call systems & communications -> the Swiss/Swedish company ASCOM
- Message: the current systems of ASCOM used in the Dutch Nursing homes are not fitted (enough) for the residential dementiacare.
- Summer 2014: partnership ASCOM Dutch Domotics
- From that moment onwards the UAS system residential version is sold
- 2014 -2015: a first larger implementation project is evaluated by Vilans with reporting & communication (together with a competitor).

# UAS Residential: dementiacare nursinghomes



Figuur 2: Voorbeeld van sensorische bewaking derde generatie, het Unattended Autonomous Surveillance (UAS) systeem van Ascom/Dutch Domotics (2015)<sup>6</sup>



notifications

### Status UAS-residential 2016

- UAS residential together with ASCOM communications operational at more than 30 locations -> nursinghomes for residential dementia care
- Often a positive businesscase for the care organization -> based on more efficient nightcare

### Back to 2014

- And what about the original technology developed for home dwelling people with dementia??
- Financed partly from the revenues of the UASresidential sellings Dutch Domotics developed a total new system for home dwelling people with dementia -> the SENSARA-system

## Link to ROSETTA

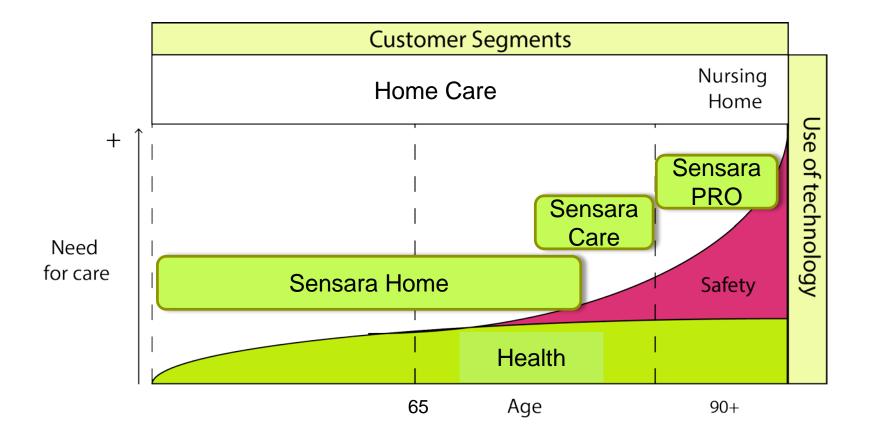
- The new development is only very faintly related to the original AALproject ROSETTA;
- 1. Focus on lifestylemonitoring, the second part of ROSETTA for people with moderate dementia -> but the lifestyle monitoring itself is totally different.
- 2. Adaptable to the stage of dementia & following the dementia process -> surveillance can be added when the person with dementia develops severe dementia with for instance fallrisk
- 3. A conclusion from the ROSETTA-pilots in 2012 in NL, Belgium and Germany was NOT to use camera-technology for emergency situation detection. Therefore the whole system is only based on a sensor network.

### SENSARA-system; characteristics

- In principle sold to the informal caregiver -> plug & play
- An smartphone app for the informal carer(s)
- At the moment when the professional carer(s) are entering the situation -> the so-called "case manager user interface".

2		
1	I	Achievements
Market Launch	2015	Partnership GreenPeak and launch Independent Living. Trials together with Virgin Media, Unity Media, Telekom Italia. Ongoing trials with multiple large telecom operators.
	2014	Commercial launch Nursing Homes with partnership Ascom (1,2 m revenue)
	2013	Proof of concept Nursing Homes
Z	2012–2013	Market research and company start
Research & Development	2012-2013	Phase 4: Nursing Home pilot Zorgpalet Baarn-Soest
	2009-2010	Phase 3: Dementia project Rosetta (AAL): Netherlands, Germany & Belgium
	2006-2009	Phase 2: Independent Living pilot Zorgpalet Baarn-Soest
	13 <b>2001-2003</b>	Phase 1: Short pilot (3 weeks)

#### Our Technologies & Customer Segments



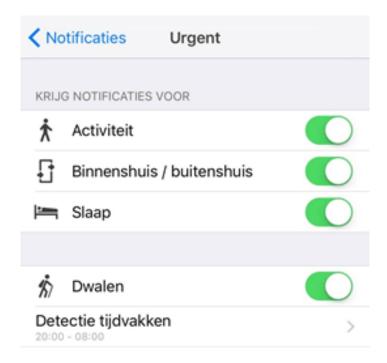


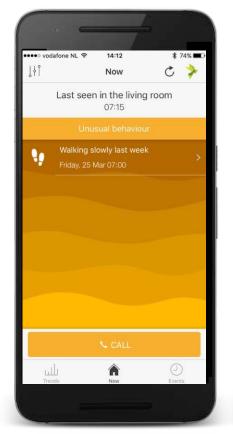


# Sensara: monitoring app for informal carer



### Notifications







Know that your loved ones are doing well.



#### **Professional Home Care**

#### (6)



#### ≽ sensara CASE MANAGER Residents (23) Notifications All Events Status -Notifications only Date Name GROUP 2 Demo Errors Slow walking speed last 2 months L. de Vries Serious H. Bakker - van Oord Serious R. Hoge Slight Shorter sleep last week > Slight F. de Lang Slight Eating much less last days > E. Schreef Normal J. Mckay G. Boogaard Normal A. Duzenli Normal M. Ozur P. Palmen Normal W. Landman J. Chung Normal K. Web X. Zhang C. Olivetti Normal B. Zotsch Normal ⁴⊃ 介



### SENSARA-system; status 2016

- In The Netherlands (and abroad): not sold in great numbers to informal carers -> unknown yet
- In limited numbers sold to care organizations in mainly pilot settings

-> Business-to business, business-to-consumer: selling the system to a care organization, offering the system to their care clients -> Still the same problem as what was the base for the strategic decision in 2012: first development for the residential care, because the businesscase for the care organization is then often possitive. But the businesscase for the care organization is NOT possitive in case of the Sensara systeem for home dwelling people with dementia. Meaning: a lot of hesitation.

# Businesscase for lifestyle monitoring

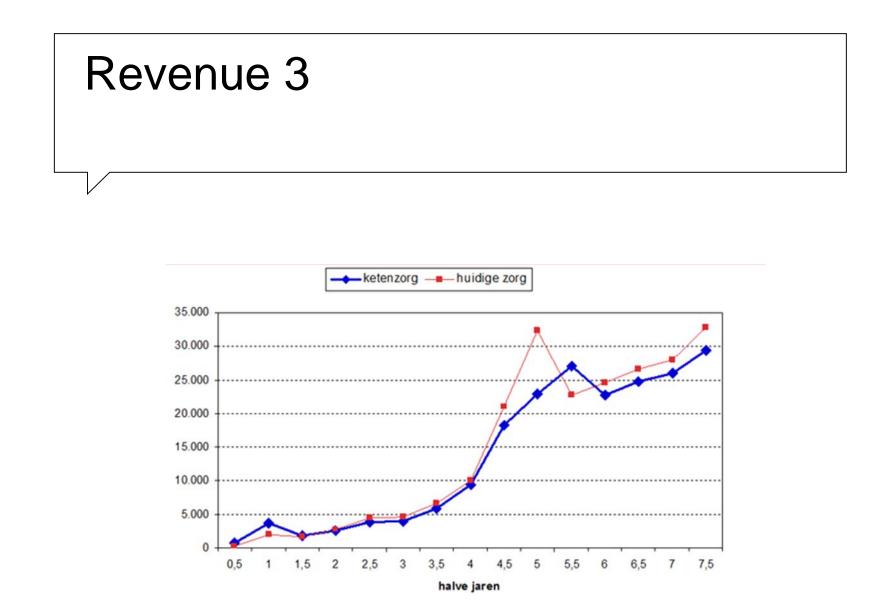
- The social businesscase is positive but the BC for the care organization not. Why?
- 5 quantitative revenues in the social BC and 2 qualitative revenues
- BC, when the system is sold by a care organization
   -> 1 system operational during 7 years (lifespan of the system) at 2 clients

## **Revenues lifestylemonitoring 1**

- 1. Postponement of nursing home admission -> indirect evidence
  -> in NL (2 clients, during 7 years): €6213,-
- 2. Anticipation short-term crisissituation -> early warning for for instance urinary tract infection

-> in NL **€2860,-**

 3. Anticipation on crisissituations originating from the dementiaprocess -> for instance the disturbed day-night rhythm
 -> in NL €10.000,-



# **Revenues Lifestylemonitoring 2**

- 4. More efficient communication informal carer formal carer
   NL: €1050,-
- 5. Substitution night care -> using lifestyle monitoring instead of regular home visits in the night

NL: **€1300,-**

Total: €21.423,- per system

Two qualitative revenues, based on evaluation studies:

- Lesser stress for the informal carer and improved quality of life of the informal carer
- A more balanced workload in the informal care network

### Who benefits from the revenues?

In the Dutch situation:

- Revenue 1: the regional care office
- Revenues 2, 3 and 5: the care insurance company who has the person with dementia as client
- Only revenue 4 limited to €1050 during 7 years: the involved care organization.
- The 2 qualitative revenues: the informal carer(s)

#### How to solve this issue?

 A reimbursement rate: the care insurance company & the care office compensates the care origanization for their investments
 -> in NL first developments on this point:

- July 2016: general agreement between the Dutch care organizations and the care insurance companies on financing 'home care technologies" including life style monitoring.

Main principles: SHARED SAVINGS. & longterm agreements Initial investments by the care insurance company & return on investment at the end of the longterm agreement.

## Business-to-consumer, consumerto-business

But enough??

Another strategic path is business-to-consumer, consumer-to-business:

- The system is not sold to the care organization but to the informal carer(s)
- When the professional care gets a role during the dementia process, the care organization can buy software to hook on the system originally sold by the informal carer.

### Questions & remarks?