



A proposed system for the home-based ambient monitoring and enablement of older adults with dementia.

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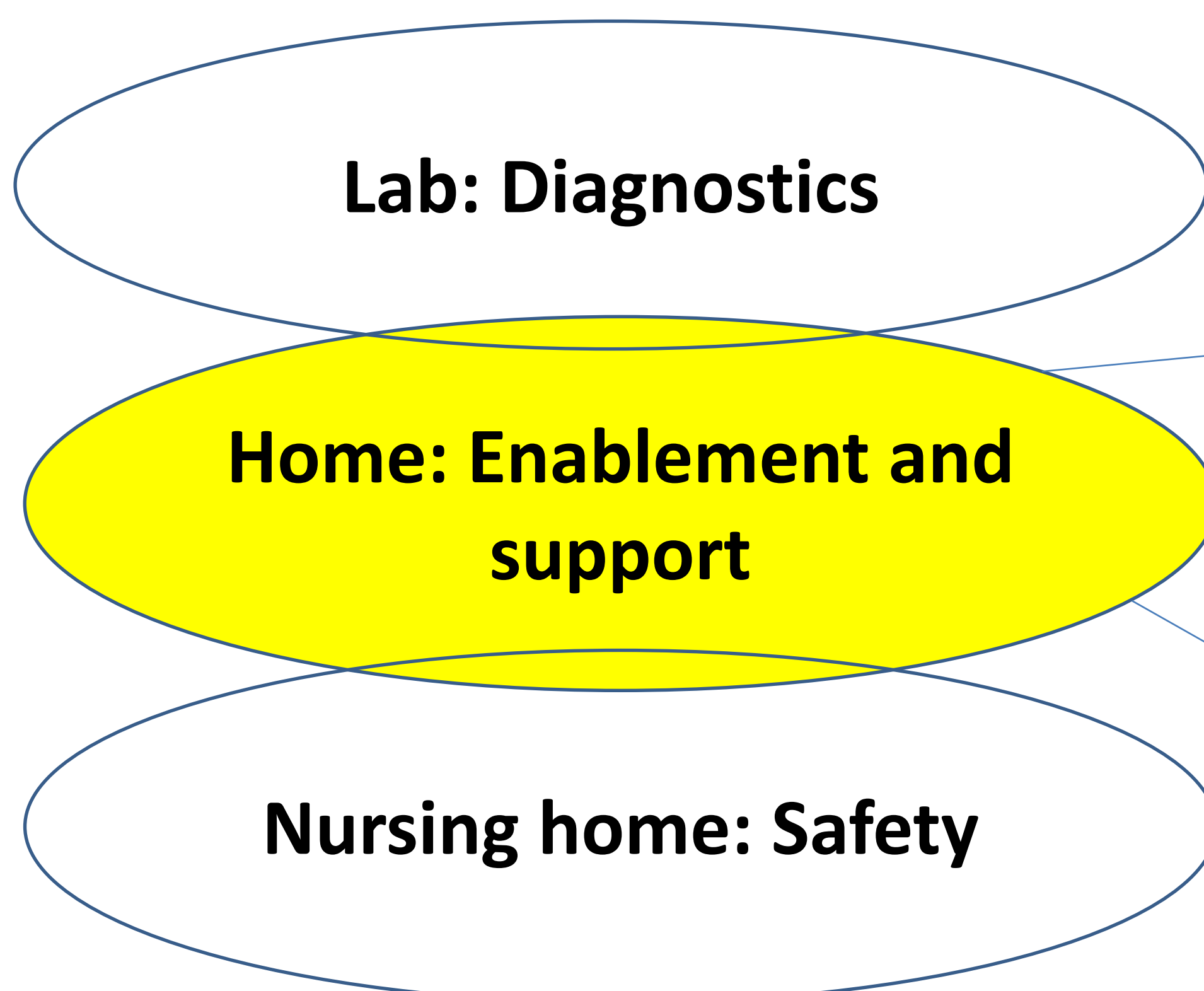
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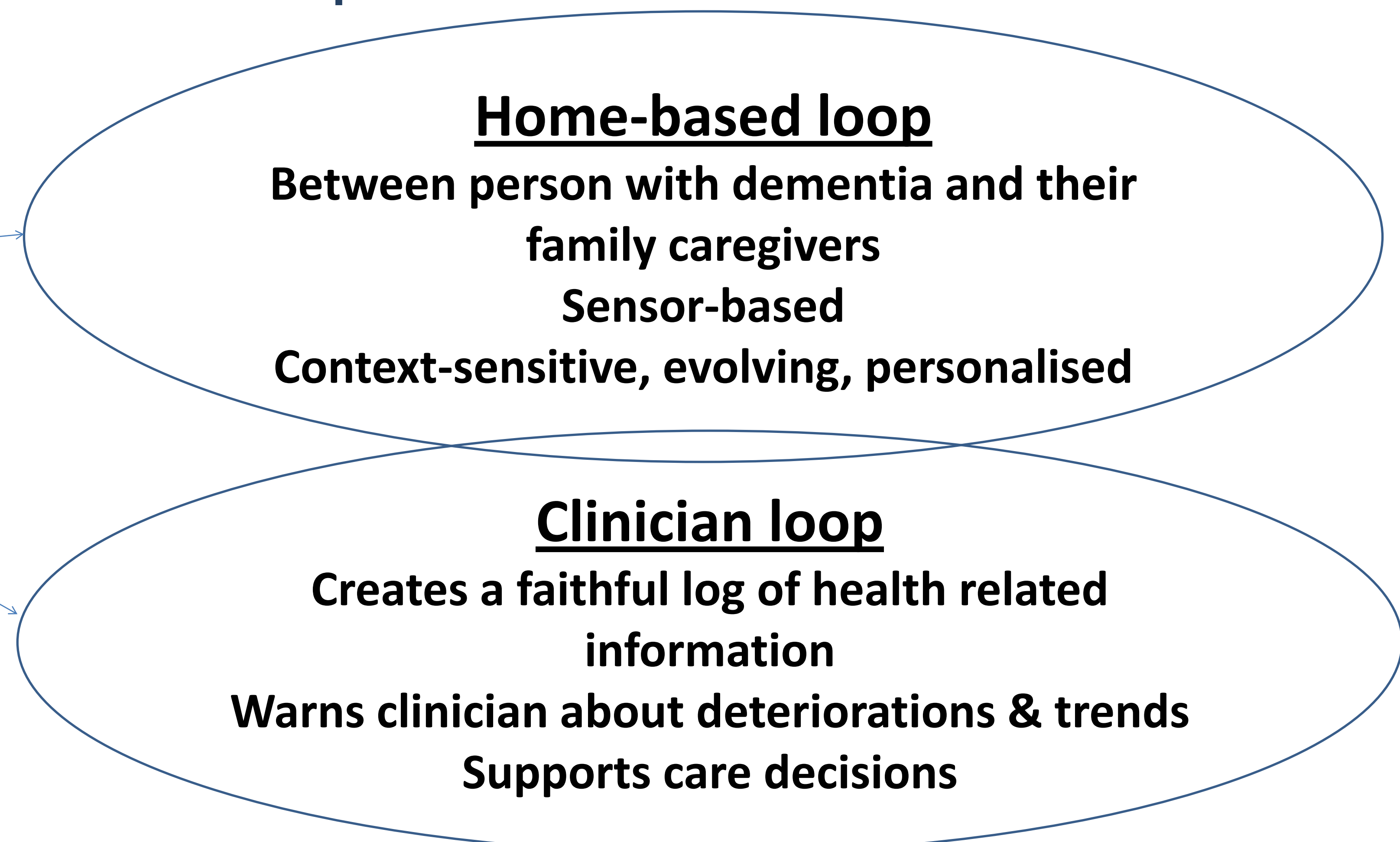
Background

- With the worldwide increase in dementia prevalence, more than ever we need to focus on developing an acceptable, cost-effective home-based solution to support individuals living in the community with dementia, and to delay institutionalisation.
- Ambient assistive technologies can support independent living and prolong community-based living¹.

3 Themes of Dem@Care



2 Loops of Care



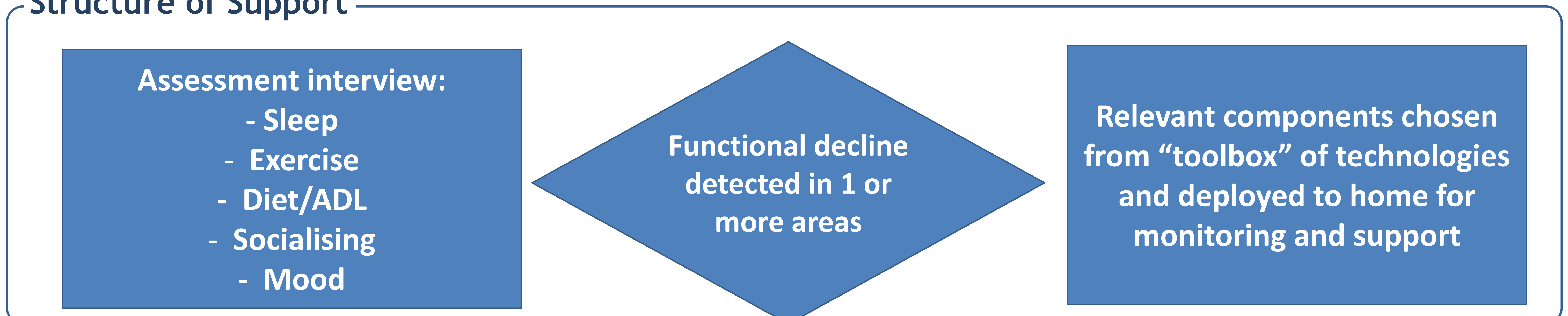
Principles of Dementia Design^{2,3}

- Keep user interaction to a minimum^{2,3,4}
- Appear familiar to the person with dementia^{2,3,4}
- Be empowering and encourage the person with dementia to solve problems^{2,3,4}
- Be reassuring^{2,3,4}
- Algorithmic applications should be based on a large dataset, because human performance is highly variable^{3,5}
- Be fiddle-proof, and robust^{2,3,6}
- Have an aesthetic⁵
- Be person-centred and not carer-centred^{4,7}
- Provide the person with dementia with a feeling of independence⁴
- Acknowledge the person with dementia as a person with abilities⁴
- Engage carers with the first stage of development, before the prototype is debuted with persons with dementia³
- Be emulative of carer behaviour, i.e. provide reminders, support, reassurance^{2,3}

What next?

- Technology-led design of the “toolbox” approach, creating personalised systems of home-based sensors.
- Recruitment of individuals with early to moderate stage dementia and their families
- Home-based deployment, system adapts over time.

Structure of Support



References

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