

1 **Multimedia Appendix 4. Case studies**

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3 The framework is currently being applied and tested in the following research projects of the
4 Center for eHealth Research:

5 6 *EurSafety Health-net*

7 The European Union wants to optimize the mobility and safety of European patients in the form of
8 adequate cross-border healthcare. However, differences in quality between cross-border healthcare
9 remain problematic. The EurSafety Health-net project has one goal: to improve cross-border
10 cooperation and reduce healthcare-associated infections (HCAIs) with extra attention for multi-
11 resistant pathogens. To achieve this goal, we co-created with all stakeholders a Health-net; a
12 multidisciplinary, Internet-based platform to facilitate this cooperation by allowing professionals to
13 communicate with each other and share infection-related information. The platform will take shape
14 by researching and identifying the necessary evidence-based (expert) content, and also the
15 indispensable, practice-driven structure. This project is using the CeHRes Roadmap to guide the
16 development of the Internet-based platform.

17 18 *DiaDerma*

19 DiaDerma is a project to develop a tele-diagnostic device for the effective screening and
20 monitoring of chronic wounds on the skin. Most chronic wound diagnoses are made in the home
21 and often these diagnoses are not optimal. The device shall help home-based caregivers to make a
22 snapshot of the wound for an eventual automated diagnosis with a chronological collection of
23 snapshots to see how the wound evolves. We used our framework to identify the problems and
24 specify what the technology wants to achieve (problem statement); to perform a stakeholder
25 analysis and needs assessment, to translate the critical values into functionalities of technology
26 (program of requirements), to match user requirements with technical requirements, to set criteria
27 for resources and competences, to test the scenarios for using the technology in different care
28 settings and to make a business model.

29 30 *Diabetes Interactive Education Program*

31 The Diabetes Interactive Education Program (DIEP) is an online application for people with type 2
32 Diabetes Mellitus. It has been developed to support patient education and stimulate self-
33 management. Though rated by experts and patients as one of the best interventions available in the
34 Netherlands today, some deficiencies impede its nationwide implementation among a wide range
35 of people. To remove these deficiencies we re-designed DIEP using a collaborative approach.
36 Using concepts and techniques from participatory (re)design and business modelling we
37 determined the user needs (patients, health care providers, and other stakeholders) and define what
38 should be done to improve usability, adherence, and acceptance. The outcome is an optimized
39 DIEP; a persuasive tool that people use and keep using since it serves the goals they have set and
40 helps them to cope with diabetes.