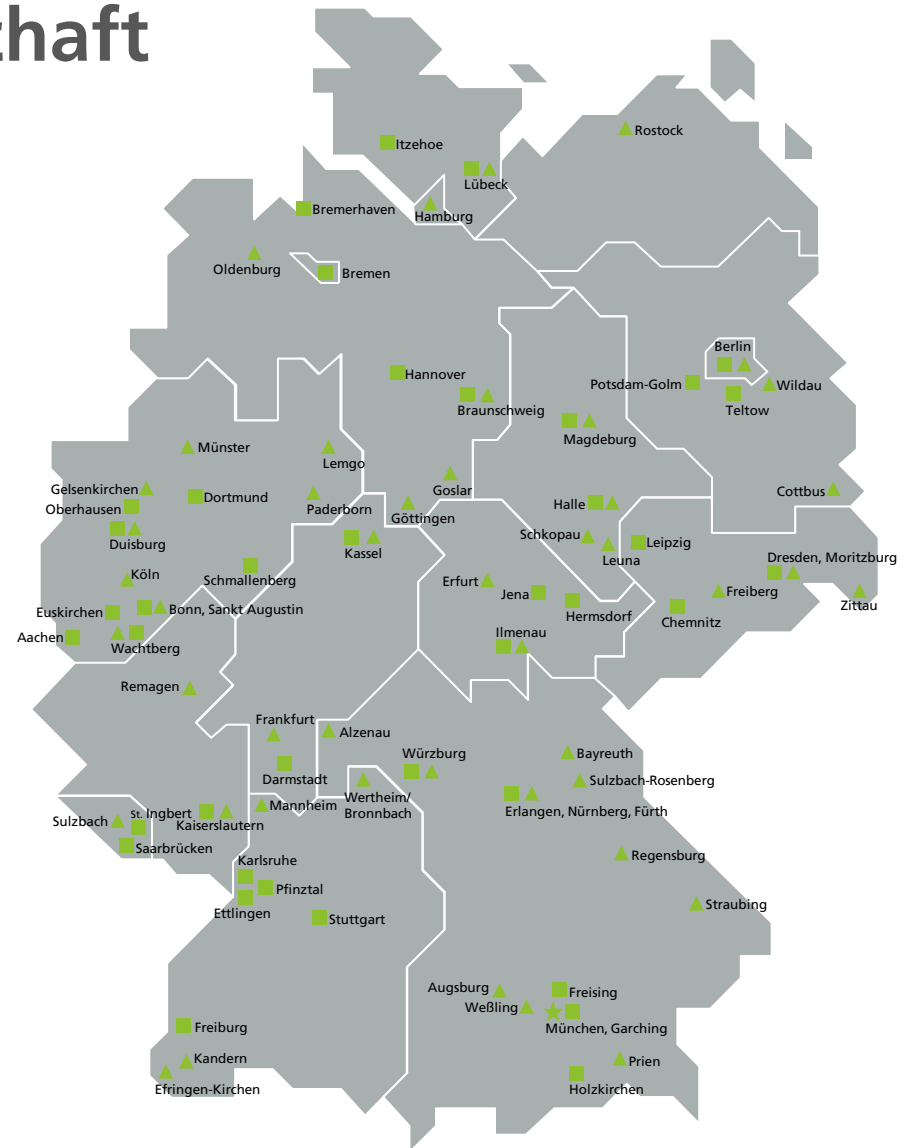

DISCOVERING MARKETS WITH THE HELP OF CITIZENS FRAUNHOFER'S PARTICIPATORY METHODOLOGY

Martina Schraudner
Fraunhofer-Gesellschaft

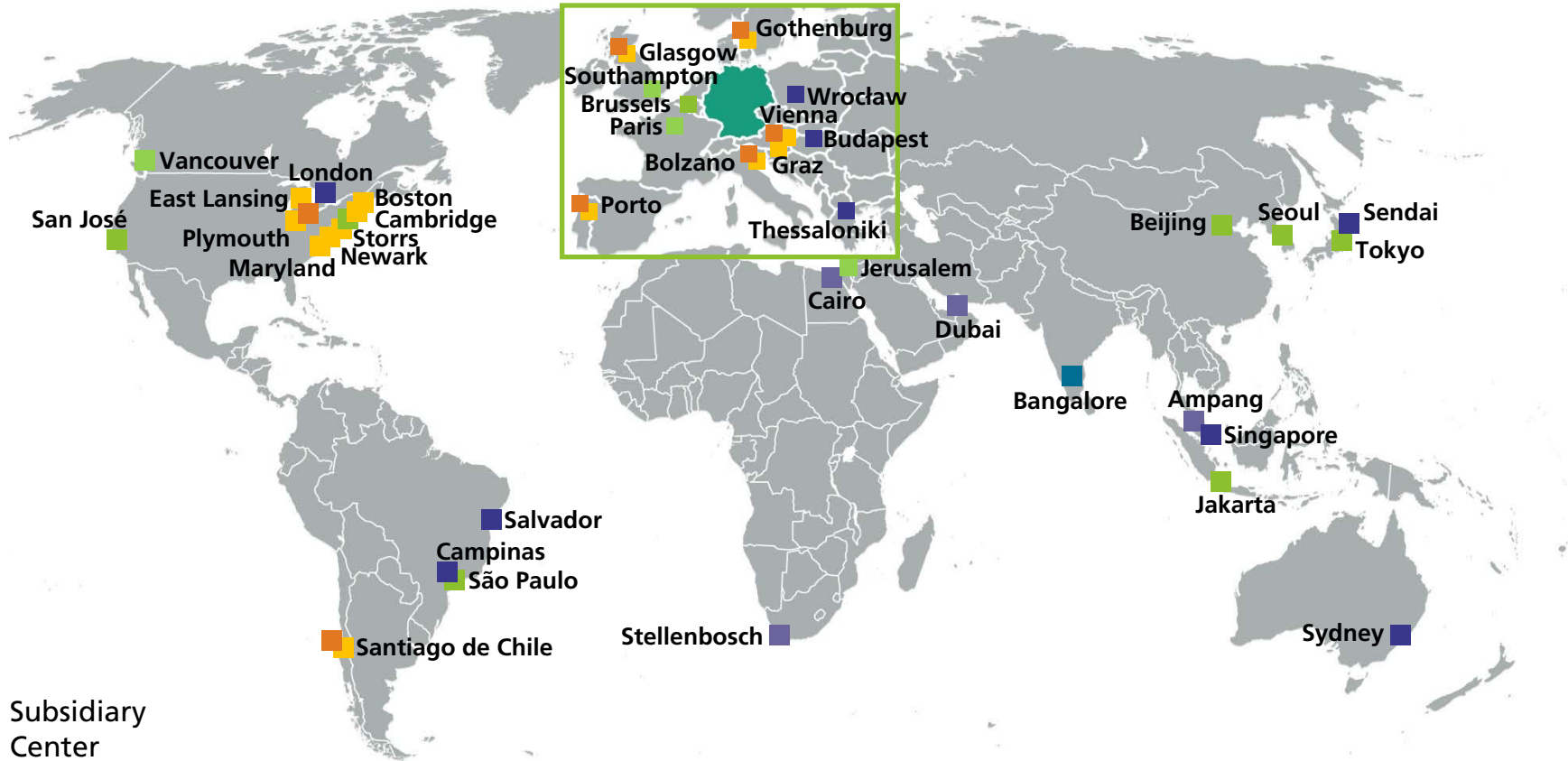
Gender Summit North-America
Washington, November, 14th 2013

Die Fraunhofer-Gesellschaft Locations in Germany

- 66 institutes and independent research units
- more than 22,000 staff
- 7 Alliances:
 - Information and Communication Technology
 - Life Sciences
 - Materials and Components
 - Microelectronics
 - Production
 - Surface Technology and Photonics
 - Defense and Security



Fraunhofer worldwide



Subsidiary

Center

Project Center

ICON / Strategic Cooperation

Representative / Marketing Office

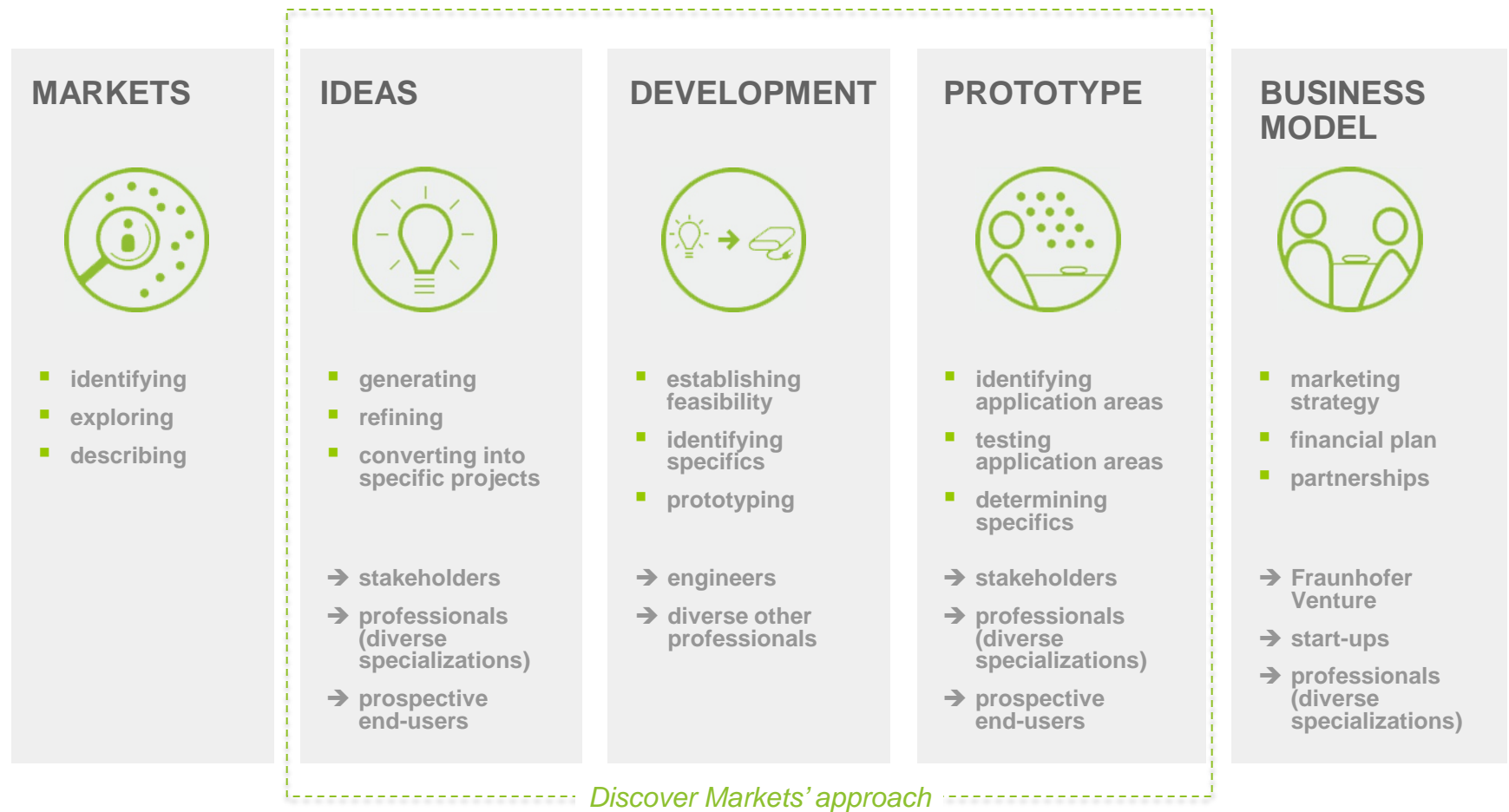
Senior Advisor

Checklist: macro-method requirements for a **responsible** innovation process

Responsible Research and Innovation:

- include relevant societal groups
- ensure societal relevance, acceptability & ethical standards
- care for gender equality

The Discover Markets process addresses three stages of the traditional innovation process





Discover Markets' methodology bases on three clearly separated steps

1. "Co-ideation" – generating ideas

participating "end-users" explore their needs and preferences in order to envision potential innovations – in egalitarian workshop settings – gender equality is ensured, if relevant;

2. Conditioning

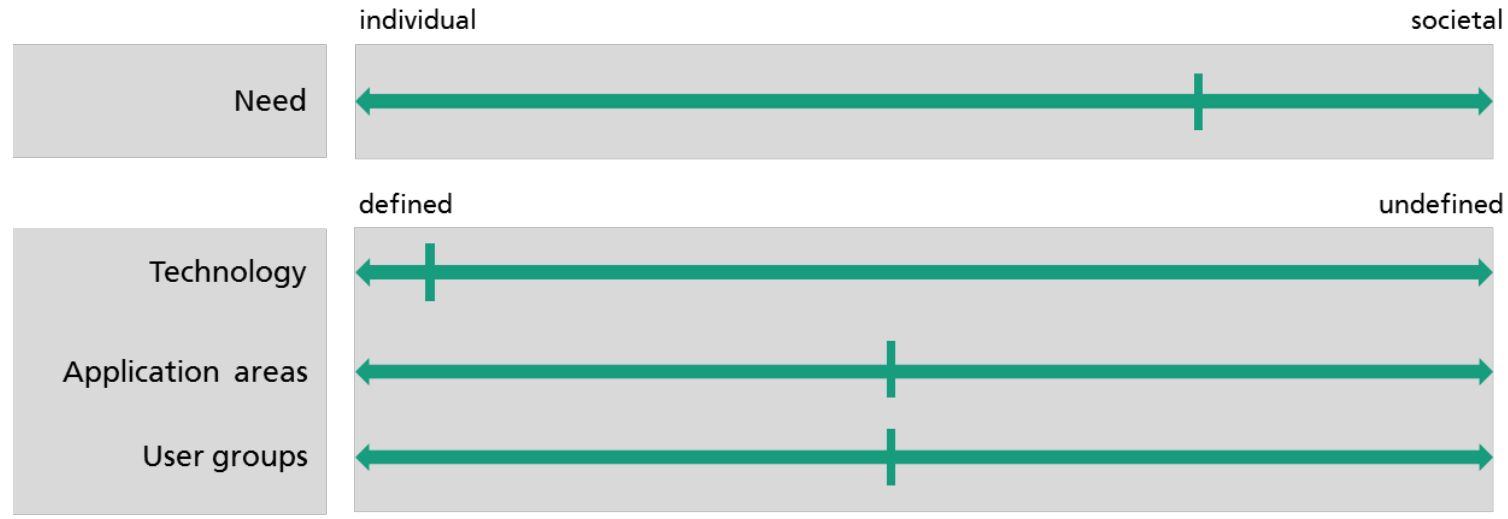
specialists (not previously involved researchers and engineers) condition the produced ideas and make a preliminary evaluation of their potential;

3. Prototyping

another group of specialists and "end-users" develop initial prototypes; the "end-users" test those mock-ups



The projects' three-step methodology bases on initial estimates on four categories



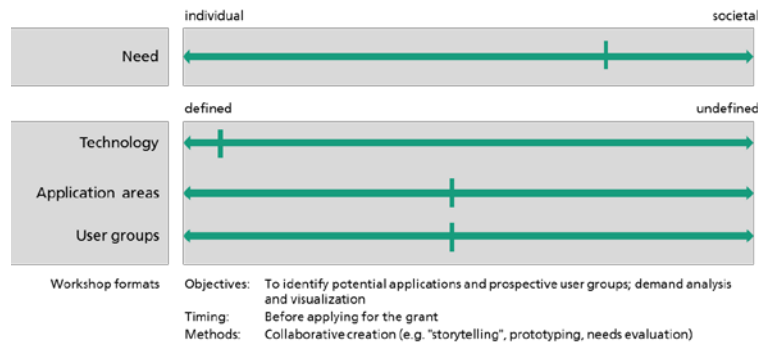
Workshop formats Objectives: To identify potential applications & prospective user-groups, to estimate & visualize the demand, to develop user-centred approaches & evaluate their technological feasibility, to develop business models, to involve concerned parties (stakeholders)

Timing: Before applying for a grant and/or throughout the entire project

Methods: Collaborative ideation & creation (e.g. "storytelling", prototyping, communication tools)

Case 1: CareJack seeks to explore user-needs to provide care-givers an intelligent orthosis

CareJack: Initial estimates



Purpose: Provide both physical support and ergonomic training on the job

Participants: Engineers, scientists, designers, "end-users" – male and female professional caregivers

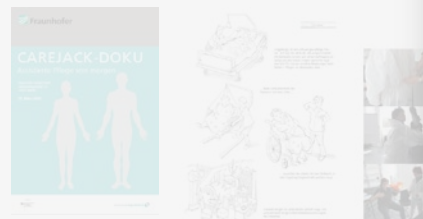
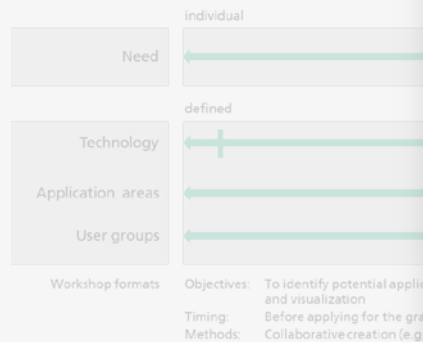
Methodology: Storytelling, design prototyping, identifying needs

Results: Possible technological solutions and identified required further research & development



Case 1: Care provide care

CareJack: Initial estimate

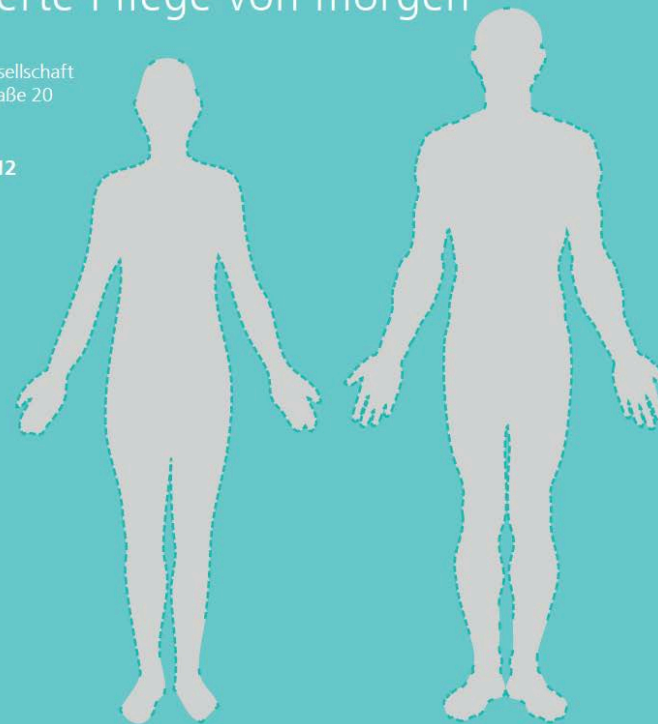


CAREJACK-DOKU

Assistierte Pflege von morgen

Fraunhofer-Gesellschaft
Hardenbergstraße 20
10623 Berlin

22. März 2012



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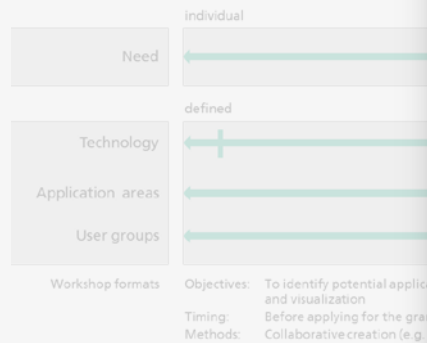
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Case 1: Care provide care

CareJack: Initial estimate



Method: Storytelling



Session 1 ASB Lübben

»Ingeborg« ist eine schwer-gewichtige Frau (ca. 120 kg), 62 Jahre alt, die aufgrund eines Wirbelsäulen-Tumors seit Jahren bettlägerig ist. Aufgrund des hohen Körper- gewichts ergeben sich für Lisa be- sondere Belastungen beim Betten / Pflegen im überbreiten Bett ...



... beim Herausnehmen der Patientin mit dem Lifter ...



... sowie bei der Arbeit mit dem Rollstuhl, in dem Ingeborg festgeschnallt werden muss.



Generell sorgen im ambulanten Bereich enge und unzureichend eingerichtete Patientenwohnungen für Probleme.

Case 1: Care provide care

CareJack: Initial estimate



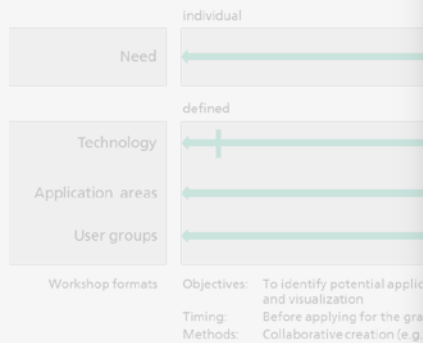
Method: Design prototyping

Session 2 ASB Lübben



Case 1: Care provide care

CareJack: Initial estimate



Method: Identifying needs

Session 3 ASB Lübben

Projekt_Care Jack*

Projektteam: *FSB*

Kurzbeschreibung der Pflegesituation: *Beim Anheben und Absetzen des Patienten, die die Beine hochheben und ohne Torso ausheben. Die Arme, Rücken, Brust, Kopf, Hals, Nacken, Schulter, Hüfte, Knie, Handgelenk.*

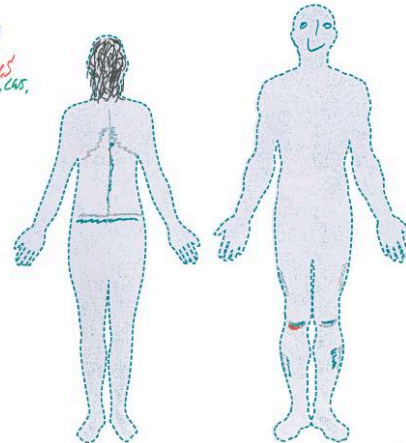
Wo fehlt es an Kraft? *in den Beinen, Brust, Rücken, Schulter, Hals, Nacken*

An welchen Körperstellen wird eine Kräfteunterstützung gewünscht? *speziell Brust, Hals, Nacken, Knie*

Welche Körperstellen sollten geschützt werden?

Welche Fehlhaltungen sollten vermieden werden?

Nutzen sie die vorgegebenen Silhouetten (Mann / Frau) und zeichnen sie Ihre Vorschläge ein.



Projekt_Care Jack*

Projektteam: *FSB W. Lülle*

Kurzbeschreibung der Pflegesituation: *Beim Absetzen des Patienten in den Rollstuhl, den Rollstuhl anheben, absetzen, verschieben, abfahren.*

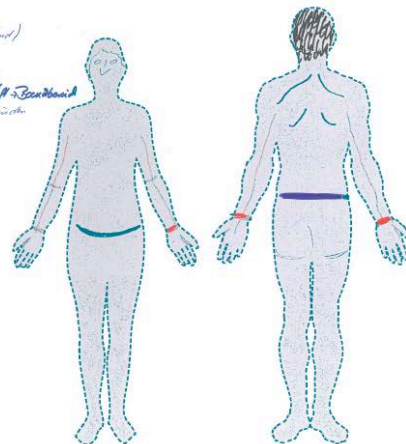
Wo fehlt es an Kraft? *in den Armen, in den Händen*

An welchen Körperstellen wird eine Kräfteunterstützung gewünscht? *Arme, Hände, Brust, Rücken*

Welche Körperstellen sollten geschützt werden? *Arme, Hände, Brust, Rücken*

Welche Fehlhaltungen sollten vermieden werden?

Nutzen sie die vorgegebenen Silhouetten (Mann / Frau) und zeichnen sie Ihre Vorschläge ein.





Discover Markets successfully integrates diverse user-perspective into the innovation process

- The developed methodology fosters user-directed innovation and is **capable of integrating a wide variety of perspectives**, both professional and from laypersons, from women and men
- **CareJack** and MyRehab exemplify the methodology and demonstrate the value of a participatory approach
- Directing the creative potential of individuals into innovation poses a particular challenge – but Discover Markets shows that **there is a great potential to be captured**
- **Outlook:** A qualitative evaluation is scheduled for 2013 / 2014

THANK YOU

Contact

Martina Schraudner
martina.schraudner@zv.fraunhofer.de