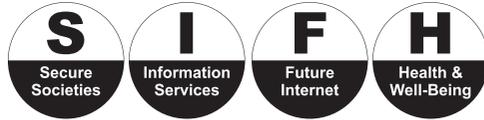


The icon represents a **societal topic** that showcases the potential of each of the golden demos. Four societal topics are chosen in line with EU research programs:



Each golden demo comes with a short statement explaining the golden demo to one of the following personas:

- General Public:** explains what is in it for companies or society at large
- Product Developer:** describes to an entrepreneurial youngster the innovation potential and societal impact
- Innovation Manager:** provides arguments at the boardroom level for a trial project
- Scientist:** reveals to academics the ICT-science challenge underlying the golden demo

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37. Tikkertje 2.0

Interactive playgrounds are installations that combine the benefits of traditional playgrounds for children with advances in technology. In our demo we show the Interactive Tag Playground (ITP), a modern, interactive version of the century-old game called 'Tagging' or 'Tikkertje' in Dutch. With the Interactive Tag Playground we actively steer the interaction between players. To this end, players are being tracked using Kinects and additional body-worn sensors. In its most basic version we project differently colored circles around each player to indicate the role of tagger or runner. When these circles collide, a 'tag' is detected and the roles of the players switch. We also add novel interactive elements such as power-ups and bonuses. Apart from entertainment, the Interactive Tag Playground is also a tool to study how children interact with each other and with the environment. Our final aim is to automatically steer the interactions in such a way that all players remain engaged and physically active.

ICT science question
How can we best track the players and understand their interactive behavior? What kind of interactions are suitable at which moment during the play to maintain the engagement of players? How can players be motivated to adopt certain play styles such as cooperation or competition?

Application
Our work can eventually be combined into playgrounds that allow for adapted play without any restrictions such as the need to wear certain sensors. We see great potential for these playgrounds in open spaces such as traditional playgrounds, shopping malls, sporting facilities and outdoor squares.

Alternative Application
Interactive play is everywhere. Not only children can benefit or enjoy interactive play. Previously, we made an ambient interactive bar that was successful in entertaining adults. The techniques, both for sensing and interaction, are largely the same. One can also think about offering play to people who normally have limited play opportunities, such as heavily handicapped or demented people. Interactive play might help in socializing, entertaining, triggering physical activity or even branding.

Nice to know
The behavior of adults and children while playing tag is largely the same. Except that children cheat more.
In 2008, the UK Local Government Association promoted tag games stating that children are over-protected ("wrapped in cotton wool"). [Wikipedia]
Variants of tag have fancy names such as "Cops and Robbers", "Kiss Chase" and "Ringolevio".

Quotes from participating students:
"This looks so cool!! I want to play!"
"I want to have this at home!"
"This should be a new sport, Olympic"
"I think this would fit very well in gyms or fairs"

Key Takeaways:

- An interactive whole-body game aimed at enhancing the player's fun, physical and social experience.
- An interactive game environment that senses players' behavior to facilitate a physically active, social and engaging experience with multiple other players without prior calibration.
- A novel game environment that mediates gameplay elements by sensing and tracking players to promote targeted behavior or improving the game experience.
- Tracking and analysis of human behavior to create engaging gameplay.

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COMMIT7 project
IUALL Interaction for Universal Access

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These researchers are responsible for the golden demo

Each golden demo fits one of six **ICT-Science** clusters, clearly represented by a color

Volume & Velocity addresses those datasets that are huge but with the need to be processed in real-time using smart algorithms

Heterogeneity & Quality recognize that raw data originates from a variety of sources with different levels of quality and focus on finding patterns that are meaningful

Intelligent System Design centralizes around the question how to create systems and standards that will continue to work as the world evolves

Scalability closes the gap between computational complexity and available computing resources

Physical User Interaction Styles explore natural interaction models to interact with the physical world that is engulfed with data

Human Computation allows intuitive interaction with all sorts of data to bring contextual knowledge and trust into the process of understanding highly complex data

Partners that are involved with the golden demo