Learning from the Future: Normative and Performative Scenario Modeling

Dr. Henning Breuer,
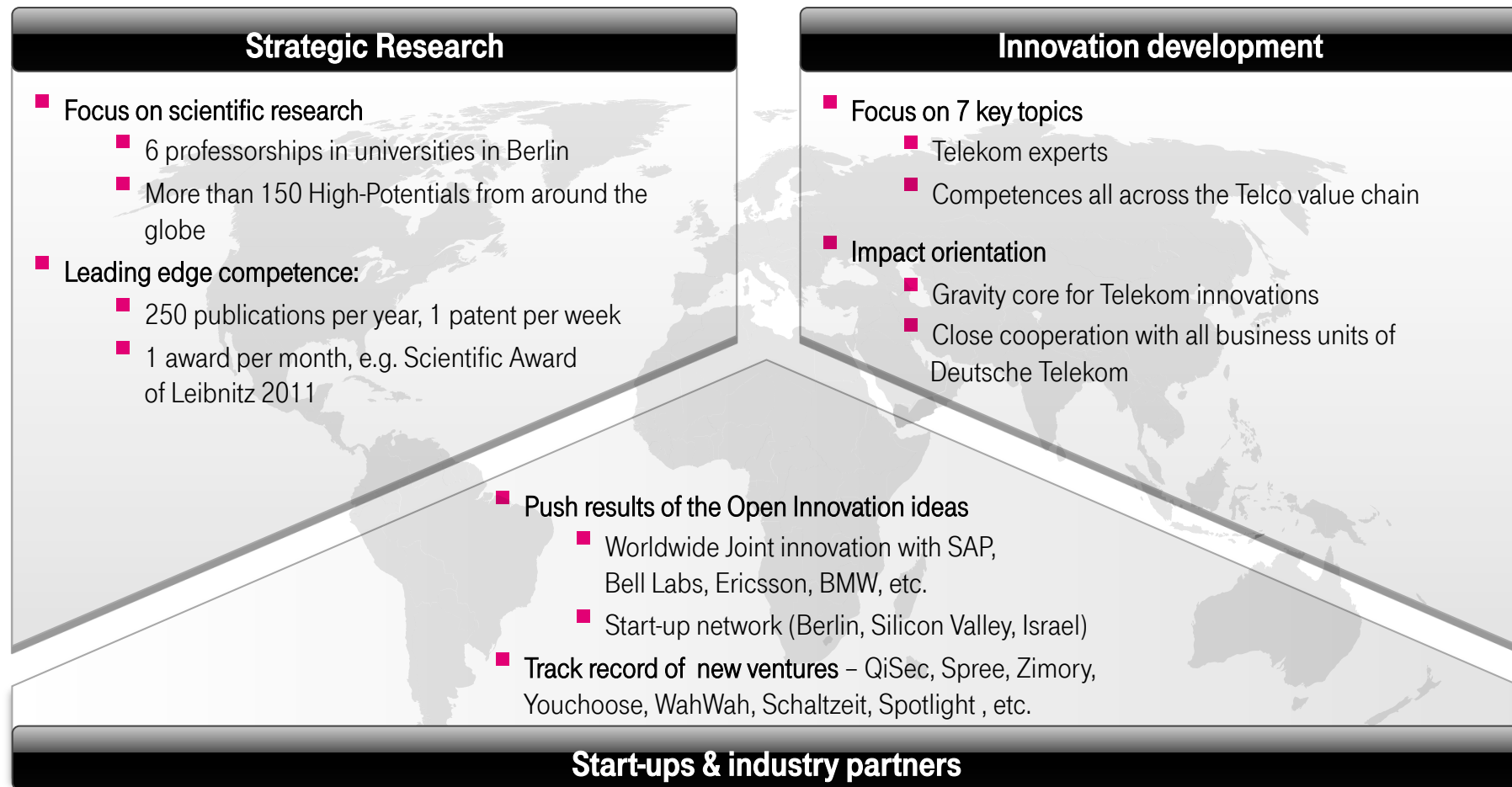Jörn Schulz, Julia Leihener

UDI

Presented in June 2012 at XXIII ISPIM Conference Barcelona. International Society of Professional Innovation Management. Spain.
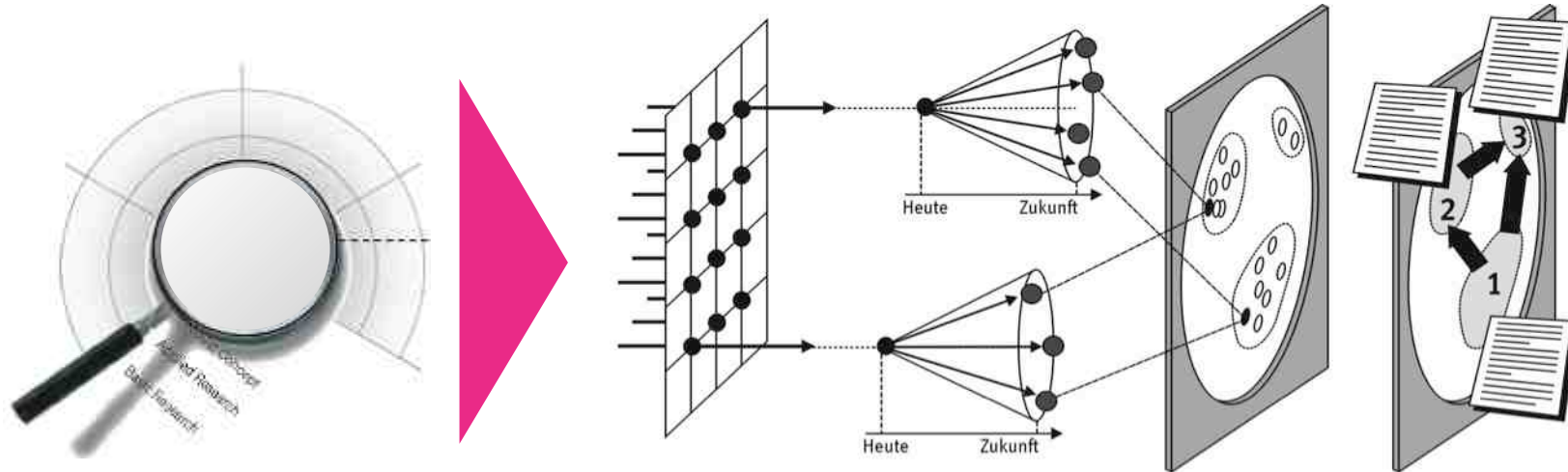
Telekom **Innovation** Laboratories

Telekom Innovation Laboratories combines the best of three worlds.

Network of international partnerships with prestigious research institutes, universities, industrial partners and start-ups.

Strategic Research

- Focus on scientific research
  - 6 professorships in universities in Berlin
  - More than 150 High-Potentials from around the globe
- Leading edge competence:
  - 250 publications per year, 1 patent per week
  - 1 award per month, e.g. Scientific Award of Leibnitz 2011

Innovation development

- Focus on 7 key topics
  - Telekom experts
  - Competences all across the Telco value chain
- Impact orientation
  - Gravity core for Telekom innovations
  - Close cooperation with all business units of Deutsche Telekom

- Push results of the Open Innovation ideas
  - Worldwide Joint innovation with SAP, Bell Labs, Ericsson, BMW, etc.
  - Start-up network (Berlin, Silicon Valley, Israel)
- Track record of new ventures – QiSec, Spree, Zimory, Youchoose, WahWah, Schaltzeit, Spotlight , etc.

Start-ups & industry partners

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In a previous project we followed a classical approach ...

Trend Analysis

- Internal Sources
- External sources
- Knowledge of the participants

Scenario development

- System analysis & selection of key factors
- Alternative future projections
- Clustering of projections
- Enrichment of scenarios and their interaction

... to model and re-present exploratory future scenarios.

A new approach was developed to explore access in 2020.

1 Normativity, performativity & transparency in scenario modeling
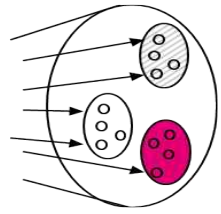
2 Empirically grounded scenarios

3 A case on convergent communication 2020

4 Scenario communication and conclusions

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The qualitative approach applies three principles ...

Normativity: From trend extrapolation to environmental exploration and visions.

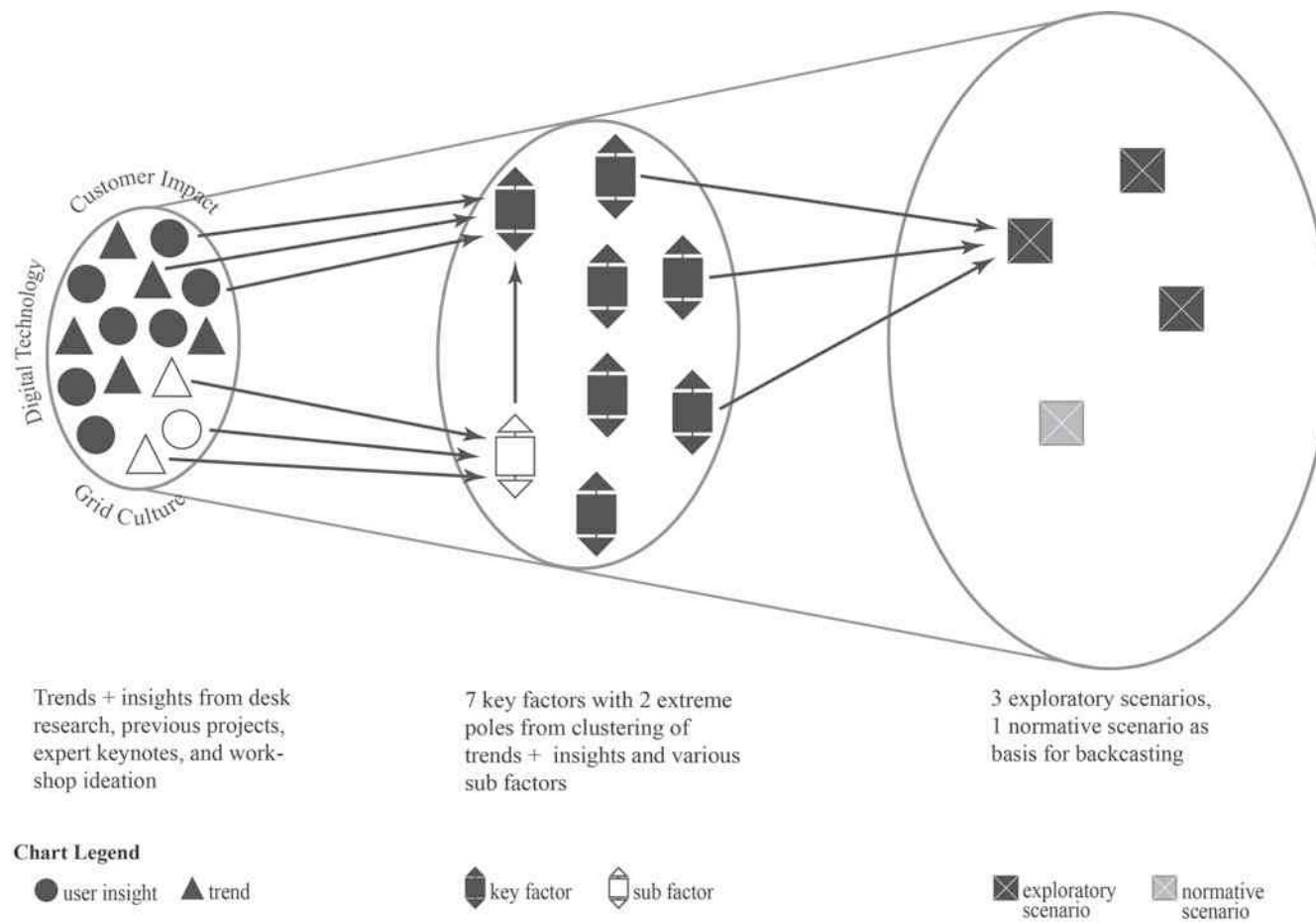**Performativity:** From an image to an one time learning exercise and a practice.

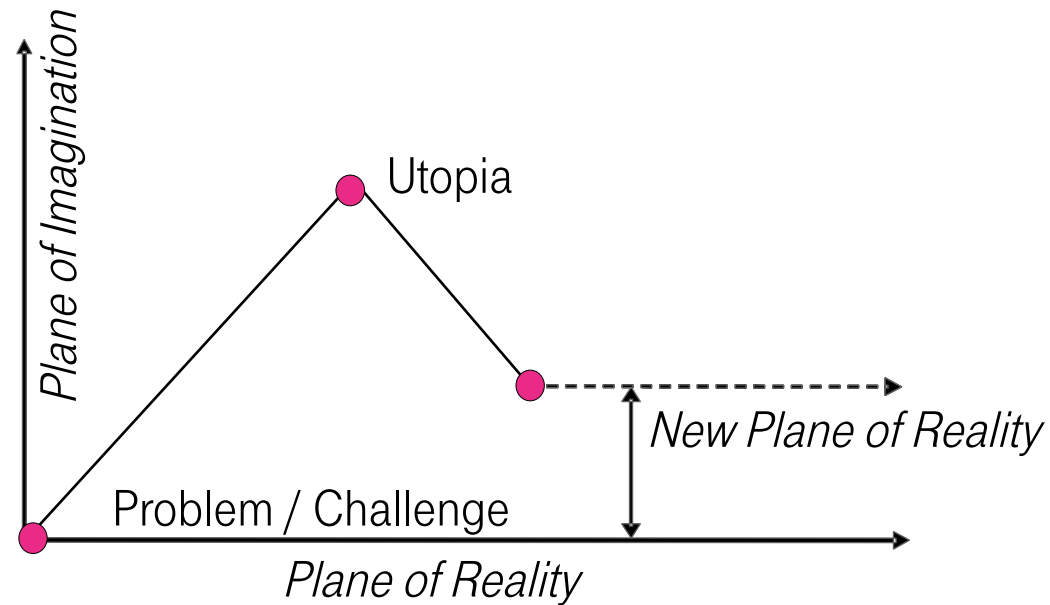**Transparency** in every part of the discourse, multimodal communication.

A qualitative modeling approach:

- deep involvement of participants in a

- transparent process addressing

- exploratory as well as normative visions.

... in order to develop empirically grounded scenarios.

Customer Impact

Digital Technology

Grid Culture

Trends + insights from desk research, previous projects, expert keynotes, and workshop ideation

7 key factors with 2 extreme poles from clustering of trends + insights and various sub factors

3 exploratory scenarios, 1 normative scenario as basis for backcasting

Chart Legend

● user insight   ▲ trend

◆ key factor   ◇ sub factor

⊠ exploratory scenario   ⊠ normative scenario

Critique, utopia & realisation proceed beyond exploration.
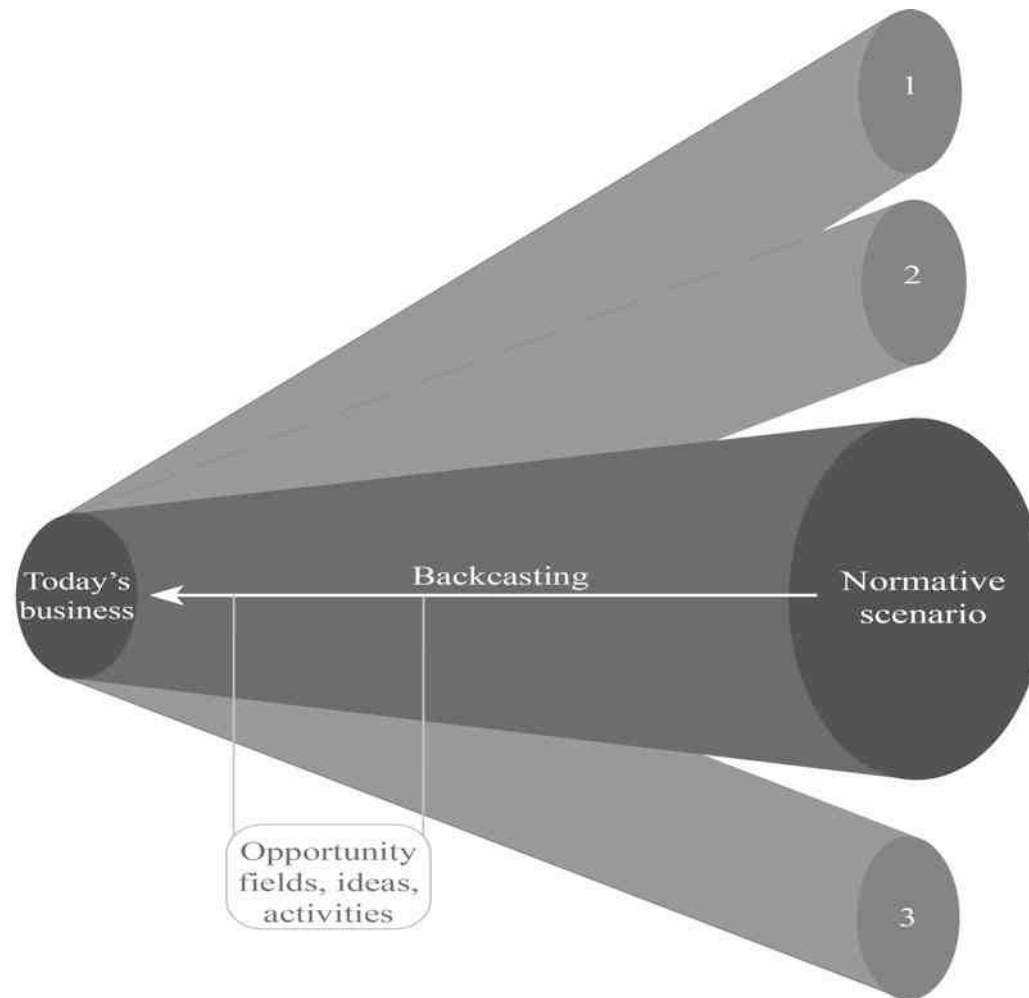

Kuhnt, B., N.R. Müllert; Moderationsfibel Zukunftswerkstätten: Verstehen, Anleiten, Einsetzen. Ag Spak Verlag: Neu-Ulm, 1997.
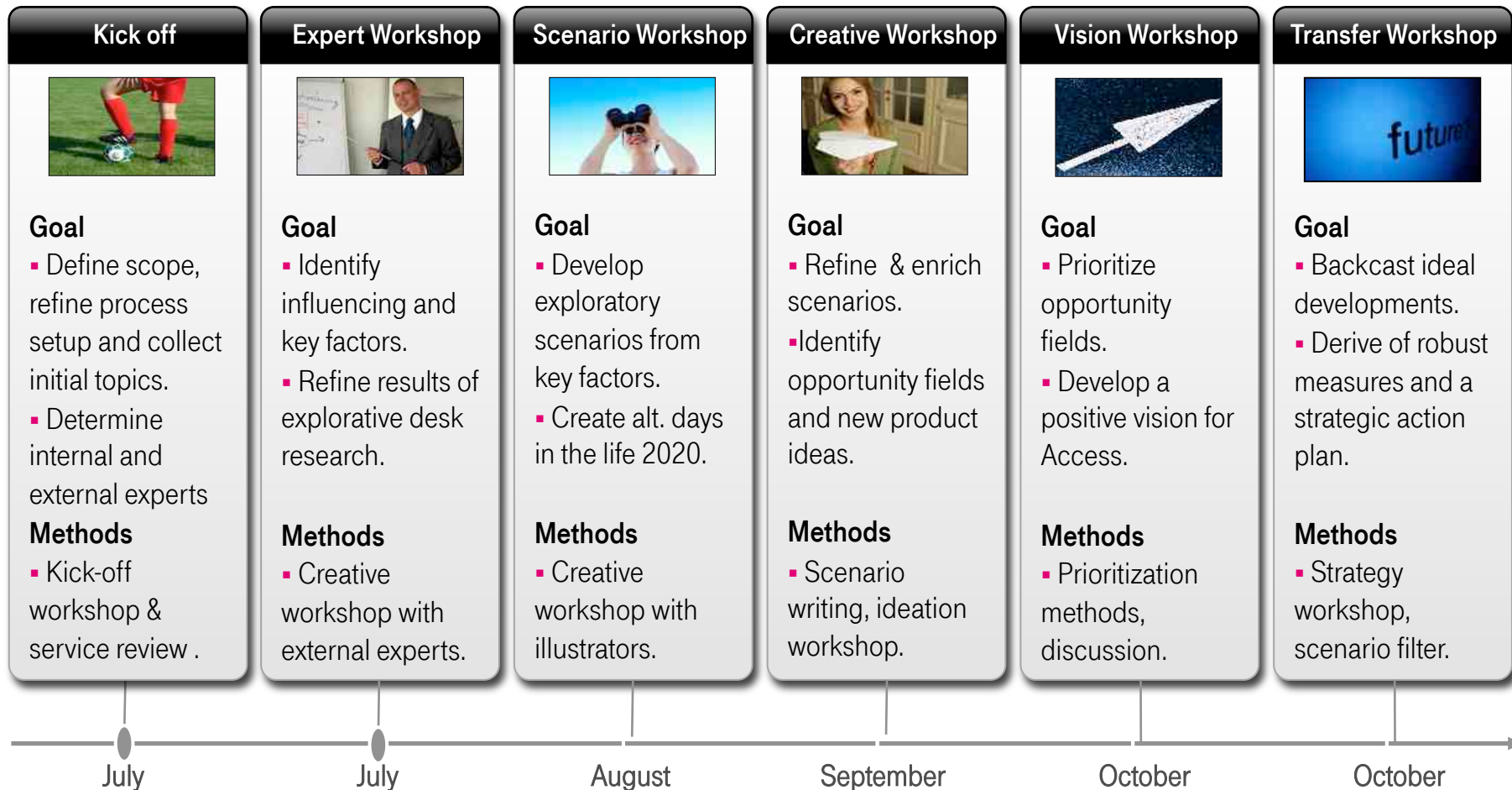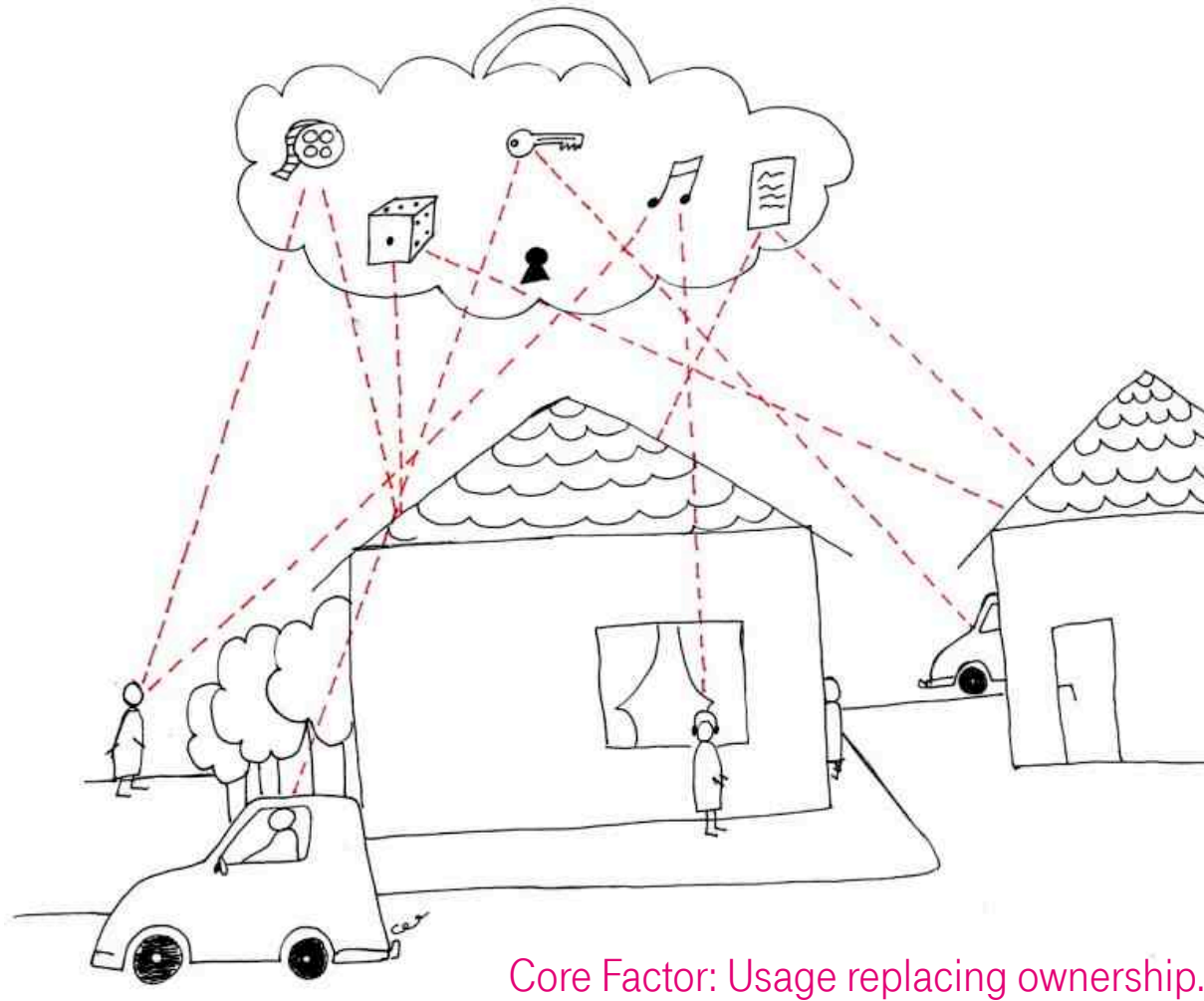
# Exploratory and normative scenarios inform strategic decisions.

The process was organized through six workshops.

Kick off	Expert Workshop	Scenario Workshop	Creative Workshop	Vision Workshop	Transfer Workshop
Goal	**Goal**	**Goal**	**Goal**	**Goal**	**Goal**
• Define scope, refine process setup and collect initial topics.	• Identify influencing and key factors.	• Develop exploratory scenarios from key factors.	• Refine & enrich scenarios.	• Prioritize opportunity fields.	• Backcast ideal developments.
• Determine internal and external experts	• Refine results of explorative desk research.	• Create alt. days in the life 2020.	•Identify opportunity fields and new product ideas.	• Develop a positive vision for Access.	• Derive of robust measures and a strategic action plan.
Methods	**Methods**	**Methods**	**Methods**	**Methods**	**Methods**
• Kick-off workshop & service review .	• Creative workshop with external experts.	• Creative workshop with illustrators.	• Scenario writing, ideation workshop.	• Prioritization methods, discussion.	• Strategy workshop, scenario filter.
July	July	August	September	October	October

After language and scope had been clarified influencing factors ...

Core Factor: Usage replacing ownership.
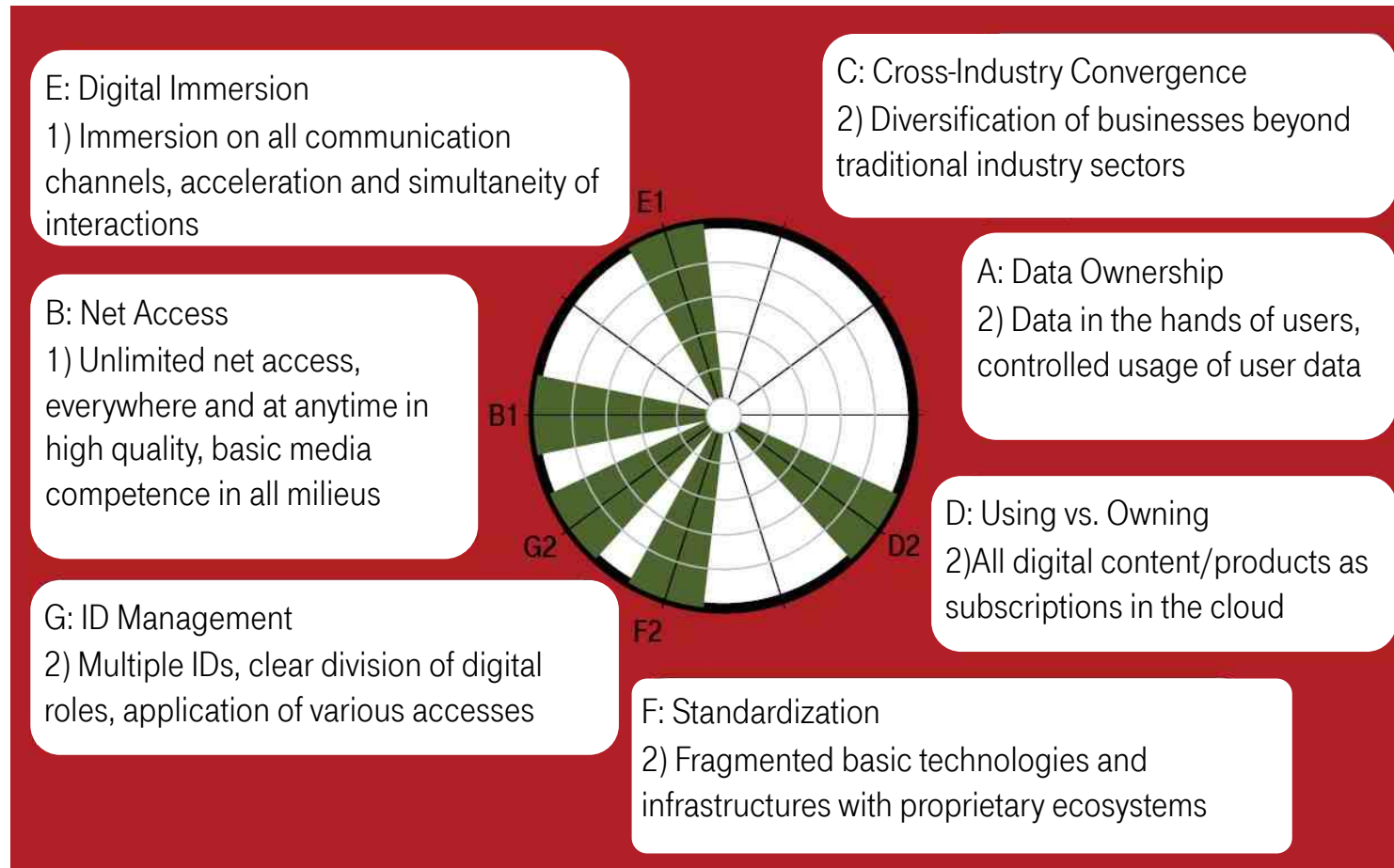
... and core factors have been discussed and prioritized.
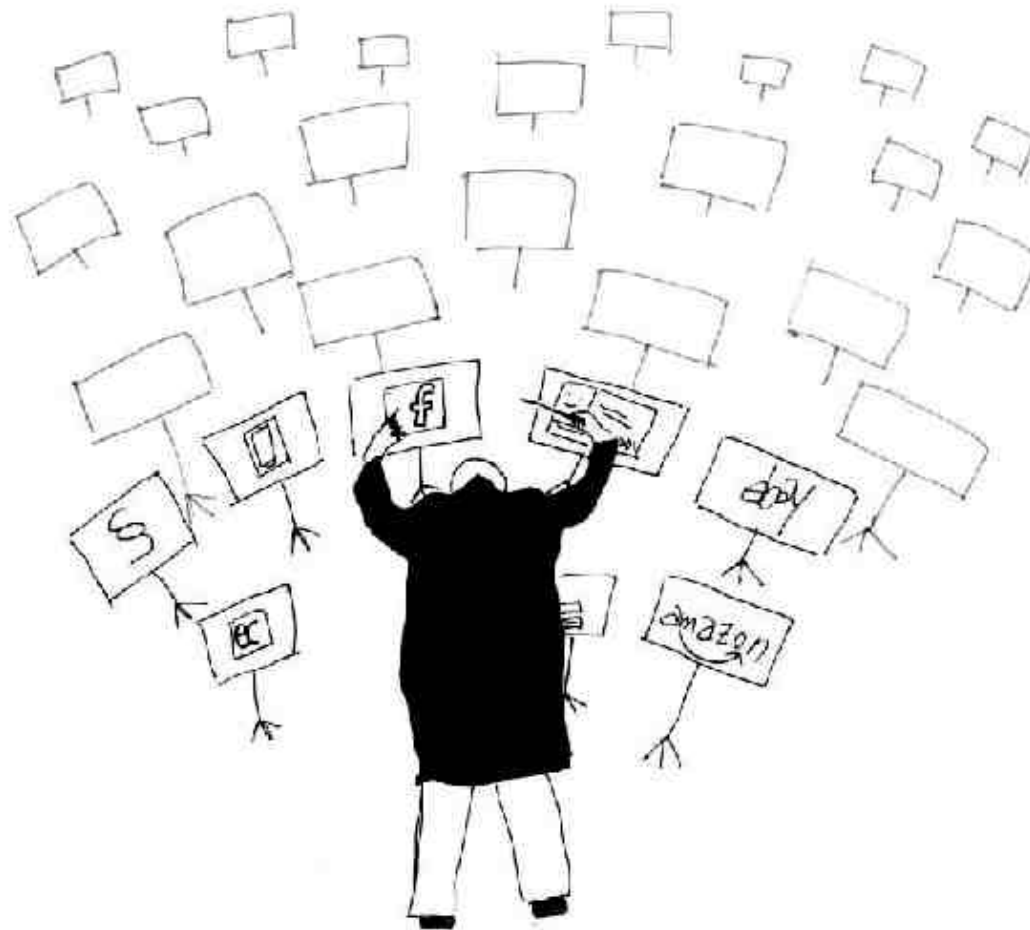
Core Factor: One Identity Management.

Each exploratory scenario results from the same factors.

Exploratory scenario "Brave New World"

E: Digital Immersion
1) Immersion on all communication channels, acceleration and simultaneity of interactions

B: Net Access
1) Unlimited net access, everywhere and at anytime in high quality, basic media competence in all milieus

G: ID Management
2) Multiple IDs, clear division of digital roles, application of various accesses

C: Cross-Industry Convergence
2) Diversification of businesses beyond traditional industry sectors

A: Data Ownership
2) Data in the hands of users, controlled usage of user data

D: Using vs. Owning
2)All digital content/products as subscriptions in the cloud

F: Standardization
2) Fragmented basic technologies and infrastructures with proprietary ecosystems

E1
B1
G2
F2
D2

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13

Five key factors have been identified ...

... and explored.

Norderstedter Zeitung

Hamburger Abendblatt   Sonntag, 12.12.2020

Endlich!

Unternehmen einigen sich auf Standard für 3D Holografie.

Saale Zeitung

SEIT 1847

✠ Brückenauer Anzeiger   Münnerstädter Zeitung

Überparteiliche Kreiszeitung, Amtsblatt der Stadt, des Landratsamtes und des Amtsgerichtes Bad Kissingen

DIENSTAG, 25. NOVEMBER 2020

Die Telekom hat es geschafft – 95% der Deutschen nennen den Netzzugang als höchstes Gut.

Studie ermittelt: Netzzugang ist menschliches Grundbedürfnis Nr. 1 – vor Familie und Freunden (60%). Digitaler Sex überholt den Analogen – Liebe ist...? Klassische Grundbedürfnisse werden vom Netz optimal gesteuert – daher sekundär!
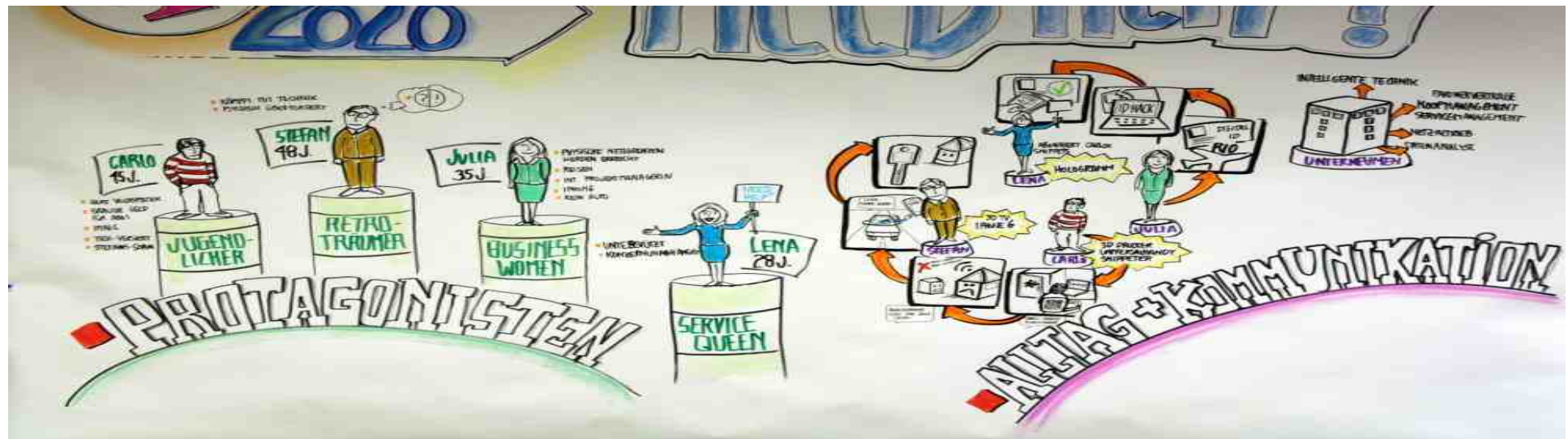
Maslow 2020

- Sex
- Soziale Anerkennung
- Schlaf
- Nahrung
- Netzzugang

15-facher Vater mit Multiple ID wird von 5 Müttern überführt.

Von Jörg Kleinert

HORNBURG. Vorhang auf zur 27. Spielsaison: Das Altstadttheater Hornburg feierte am Freitagabend die Premiere des Stücks „Zickenalarm" von Jürgen Baumgarten – eine spritzige, herrlich groteske Komödie, die voller Schalk und Humor steckt.

Die Aufführungen des Ensembles sind inzwischen Selbstläufer. Die Premiere auf den „Brettern" im Haus Hagenberg war wie gewohnt ausverkauft. Hinter den Laiendarstellern lagen intensive Probenwochen. „Die Stadt Hornburg ist stolz auf ihr Altstadttheater", betonte Bürgermeisterin Helga Küchler.

Zum Inhalt: Stefan Sander (Felix Namuth) will sich was Gutes gönnen, nämlich Urlaub auf den Baha-mas. Sonne, Meer und schöne Mädchen – herrliche Aussichten. Er will Nicole (Britta Meyerhoff), seine Verflossene, vergessen. Doch vorher muss ein „Wohnungs-Sitter" her.

Die Warnungen seiner Nachbarin Lisa Bader (Sylvia Bauce), eine passionierte Pessimistin, schlägt Stefan in den Wind. Kaum hat er eine Anzeige geschaltet, wird sein Appartement von der Weiblichkeit gestürmt. Fünf Frauen auf der Flucht vor ihren „Verflossenen" und auf der Suche nach einer preiswerten Bleibe. Und dann interessiert sich noch ein Mann für Stefans Wohnung – der ökologische Dauercamper Martin (Michael Lindauer).

Bei fünf Frauen sind aber mindestens vier zu viel an Bord, stellen die Ladies bald fest. Sie liefern sich einen Zickenkrieg vom Feinsten, um

who shall I be today?

Live illustration supports live discussions.

Realistic narrative reveals new details on a "Brave New World".

[...] In order to get to his school today, Kevin rents a skateboard from the central parking house in his neighborhood. Big letters on the skateboard identify it as "Spaceboard" since it is being provided by the social network Spacebook. The costs for renting the skateboard is covered by the membership fee for Spacebook. [...] Kevin simply scans the QR code on the skateboard to check it out and to use it for the rest of the day. For the teenager Kevin, these sharing models are really handy since he doesn't need to own all these things but can use them.

The backbone of this paradigm shift in consumption is telecommunication. All things are connected to each other in the Internet of things. [...]

A future gallery visit triggered ideation and controversial discussion.

A stop motion movie promotes follow up activities.
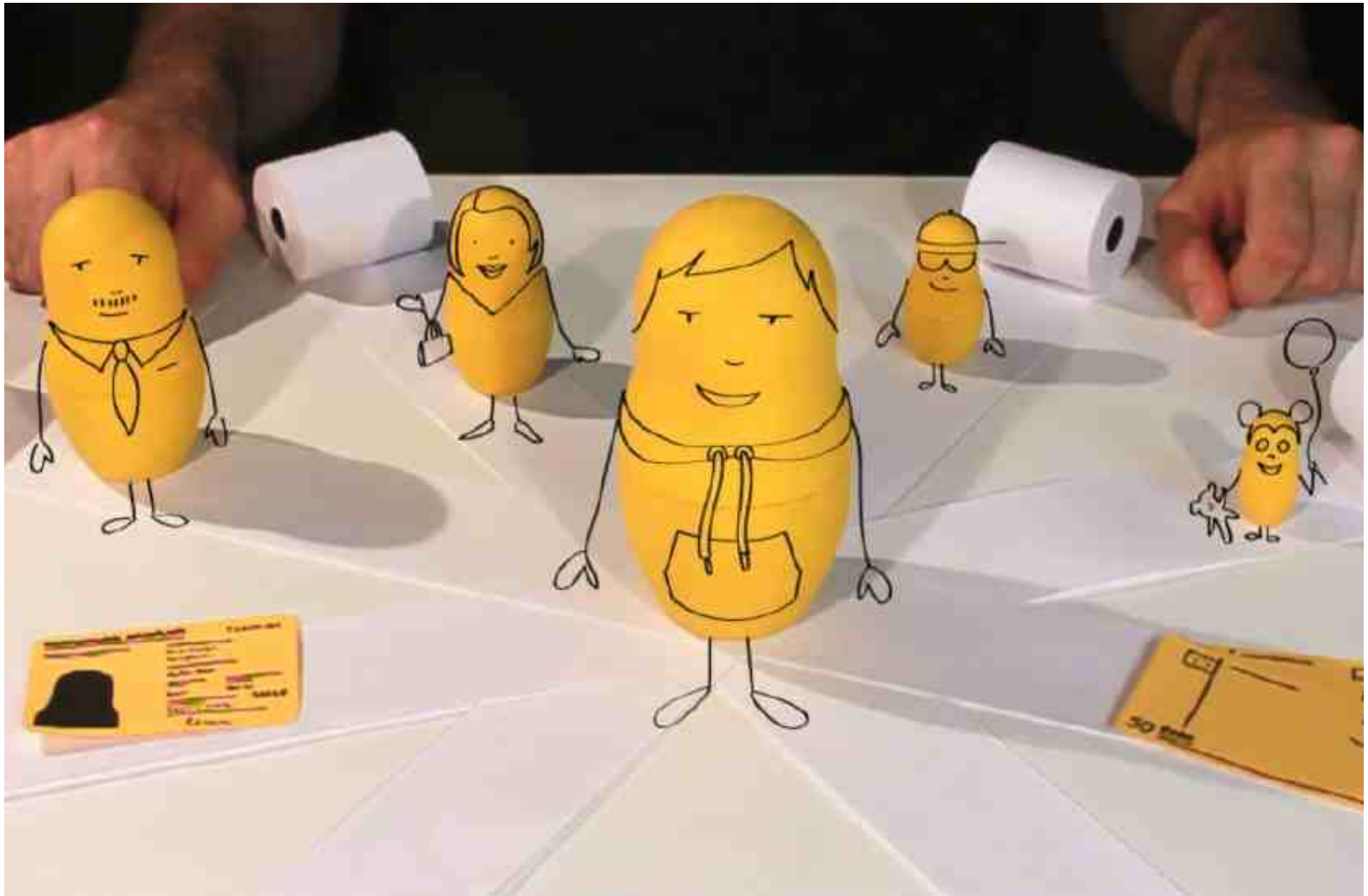
For each of the scenarios the strategy matrix depicts activities …

T-Access 2020: Unlimited Internet Accessibility, High
Standardization, Usage on Demand, Intense Digital
Immersion, One–ID Management

Activities →

Scenario 1: Networked automation is seamlessly
omnipresent and helpful

Activities & Opportunities →

Scenario 2: Problems from missing standards and digital
immersion find innovative solutions.

Activities & Opportunities →

Scenario 3: Access barriers and people struggling
with side effects of global transformation.

Activities & Opportunities →

| 2012 | 2016 | 2020 |

... and new opportunities particularly for the alternatives.

Challenge: Problems from missing standards in the scenario "Brave New Digi World".

Central Transcoding

Why? Services are not supported across all networks, e.g. HD Voice due to codec diversification within different networks.

How? DTAG offers central transcoding for services providing bridges between ecosystems.
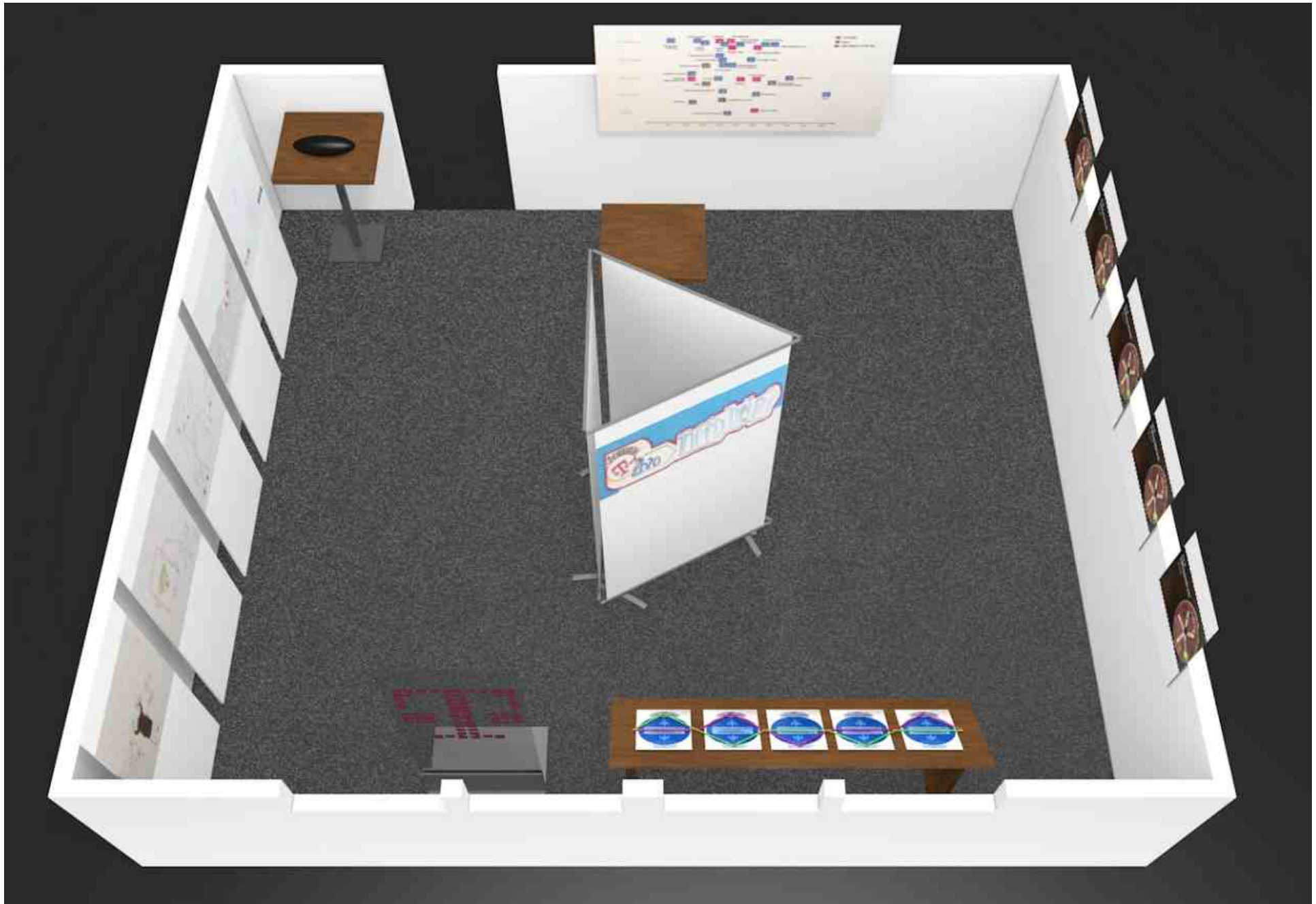
Challenge: Access barriers and people struggling with side effects of global transformation.

Fall-back Net

Why? Net access is not always secure and reliable, but business and customers need security & net access anytime.

How? DTAG offers alternative ways of accessing the net, e.g. via a satellite router.

An interactive learning architecture was set up ...
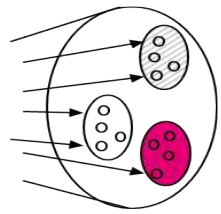
... to host team discussions and management events.

Modeling future scenarios is an ongoing learning excercise ...

Kick off	Expert Workshop	Scenario Workshop	Creative Workshop	Vision Workshop	Transfer Workshop
Learning	**Learning**	**Learning**	**Learning**	**Learning**	**Learning**
▪ Shared language	▪ Iterative shifts of perspective	▪ Combinatory exercise to sensitize for interdependency and systemic issues	▪ Immersion into the scenario worlds	▪ Contrasting to the corporate vision	▪ A cardbox and poster to follow up
▪ Common ground	▪ External contributions: videographic footage, cultural probes, analysis		▪ Realistic narrative reveals new details		▪ An interactive learning architecture
▪ Decision focus	▪ External experts in the workshop				

... that profits from normativity, performativity & transparency.

Normativity: The normative vision proved to be a most valuable result, with exploratory scenarios for plan B.

Performativity: From a learning exercise towards a practice.

Transparency : Empirically grounded in needs and expert perspectives, combined with service design methodology.

Future research:

- Set up and evaluate educational curricula, methods and media for modeling scenarios as **learning** experiences.

- Broadcast practices & mindfulness for innovation to sensitize for alternative futures & opportunities & streng-then strategic vision.

Thank you!

Also see: Breuer, H., Grabowski, H. & Arnold, H. (2011). The shape of things to come: Scenarios and visual stories for telecommunication in 2020. In: Proc. of the IADIS International Conference on Telecommunications, Networks, and Systems 2011, pp.107-114. Rome, Italy .

Breuer, H. & Gebauer, A. (2011). Mindfulness for Innovation. Future Scenarios and High Reliability Organizing Preparing for Unforseeable. SKM Conference for Competence-based Strategic Management, pp. 1-18. Linz, Austria. (http://www.bovacon.de/papers/2011_Mindfulness.pdf).

Dr. Henning Breuer

Telekom Innovation Laboratories
Ernst-Reuter-Platz 7, 10587 Berlin
Phone: +49 30 8353 58534
E-Mail: henning.breuer@uxberlin.com

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Linking future scenarios to present decisions

	Sensitivity/ Risk Assessment	Strategy Evaluation	Strategy Development (planning-focus scenario)	Strategy Development (without planning-focus scenario)
Starting Point	▪ Predefined strategic decision	▪ Already existing strategy	▪ One scenario as focus for the development of a new strategy	▪ All available scenarios
Goal	▪ Evaluation of that specific strategic decision: go versus no go	▪ Evaluation of the viability of that existing strategy	▪ Testing of the new strategy's resilience against other scenarios	▪ Resilient strategy considering variations in business conditions
Approach-Opportunities	▪ Hedging or modification of the decision if needed	▪ Options for changes, the need for contingency planning	▪ Startegy modification, hedging and contingency planning	▪ Integration of strategy options into an overall coordinated strategy
Strategy-development	▪ Existing strategy, no new strategy is developed	▪ Existing strategy might be changed in some points	▪ New strategy is developed by using a planning-focus scenario	▪ New strategy is developed by using all available scenarios

simple   sophisticated

Five key factors have been identified ...