



Make it real!

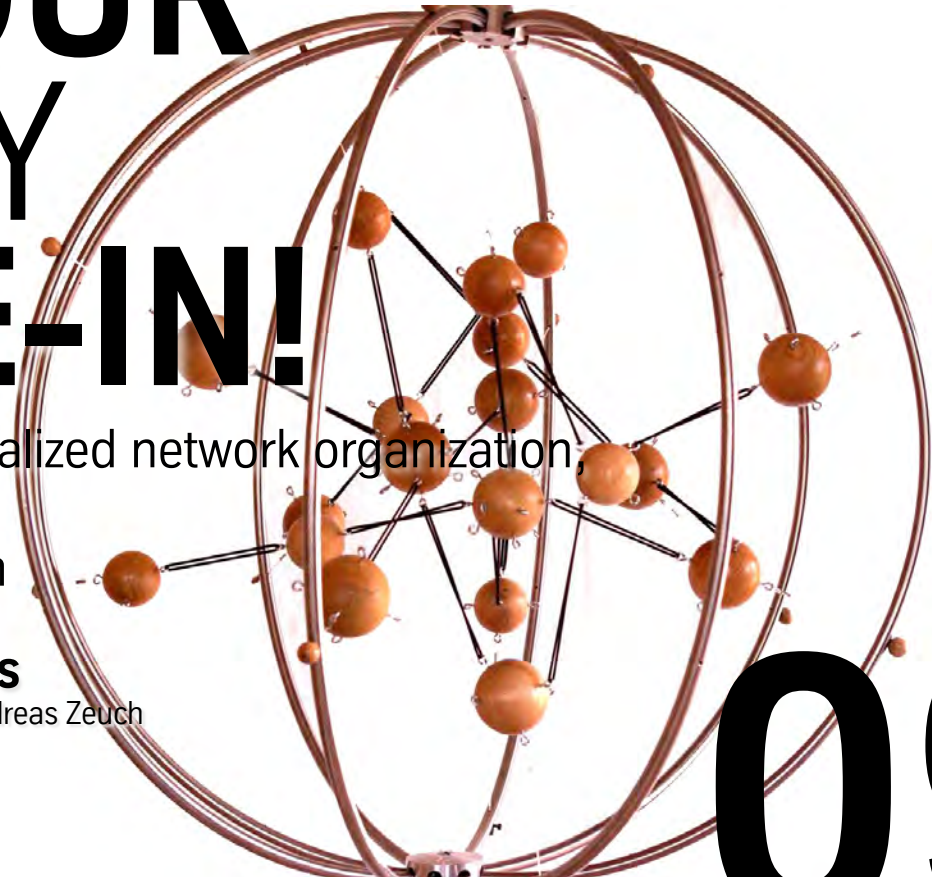
TURN YOUR COMPANY OUTSIDE-IN!

Part 2. How to build the decentralized network organization guided by BetaCodex principles.
A paper on Cell Structure Design

BetaCodex Network Associates

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BetaCodex Network White Paper No. 9. Dec 2008



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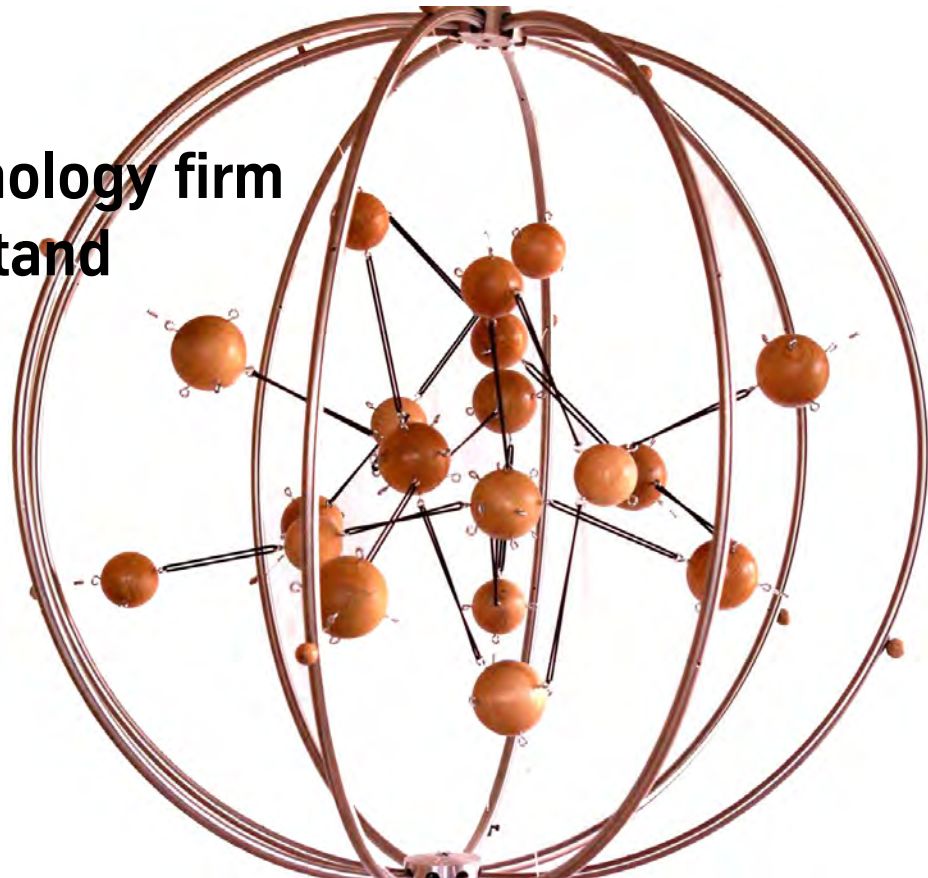
Welcome to the second part of this paper.

In the first part of this paper, we...

- ... explained the rationale for a different, non-tayloristic, way to structuring organizations – leading to the question of how to build organizations capable of (1) accommodating human beings, and (2) competing in today's dynamic and non-linear market-places.
- ... described why previous ideas such as systems theory failed in creating significant momentum for change in organizational practice, and outlined the design principles that decentralized, networked cell structure organizations must adhere to.
- ... detailed the ingredients of such structures, which include (1) a sphere of activity, (2) network cells, (3) strings and (4) market pull.
- Finally, we described some of the consequences of applying such a design, highlighting key advantages as well.

In this, the 2nd part of this paper, we describe two cases from our consulting practice, in which tayloristic command and control organizations were redesigned as decentralized networks.

Chapter 1:
Case study No. 1 - Technology firm
from the German Mittelstand



Case Study “Technology firm from the German Mittelstand”: An overview over the company

The case company in a nutshell:

- Producer of household equipment, sold to local resellers and craftsmen. Four different product lines, several different “sales channels“, dealt with by different teams and areas
- Approx. 350 people, age of the firm: approx. 20 years
- Strong presence in Germany and Italy, weaker presence in other countries. Two production sites – one in Germany, one in China.
- Some technology and production leadership, in a strongly commoditizing market – which creates pressure to internationalize the business.
- Huge growth potential, but in the past, internationalization hindered by internal quarrels, lack of coordination, and a culture of internal politicking
- Long history of “feeble” financial results, and, occasionally, dramatic financial losses, compensated for by the owner family.
- A large number of product engineers controls innovation and other processes and thus acts as a powerful function.



ICEBERG INC.

What the company looked like

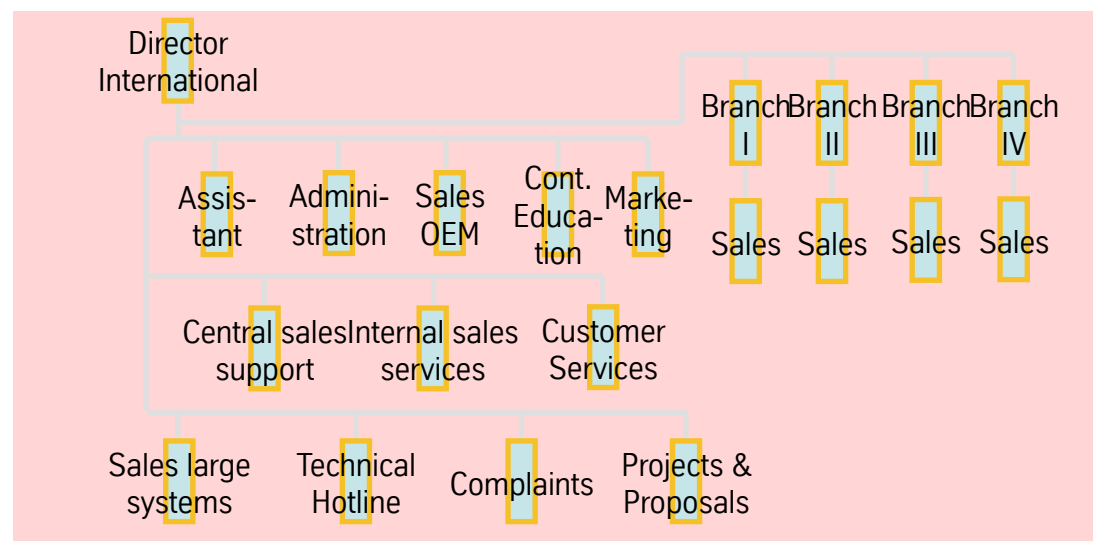
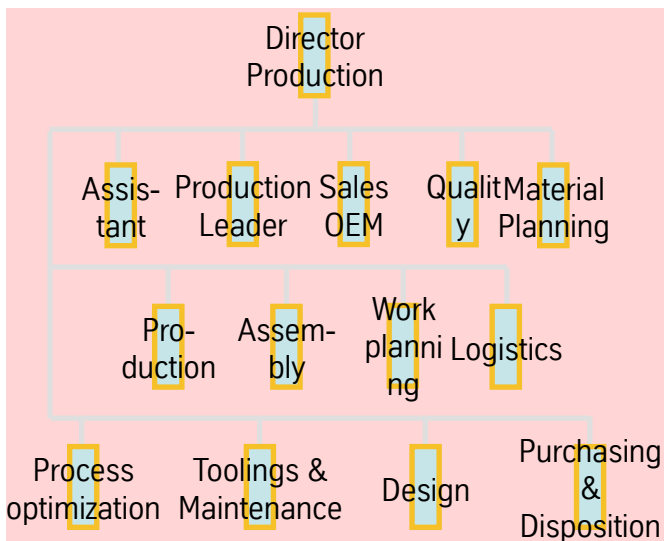
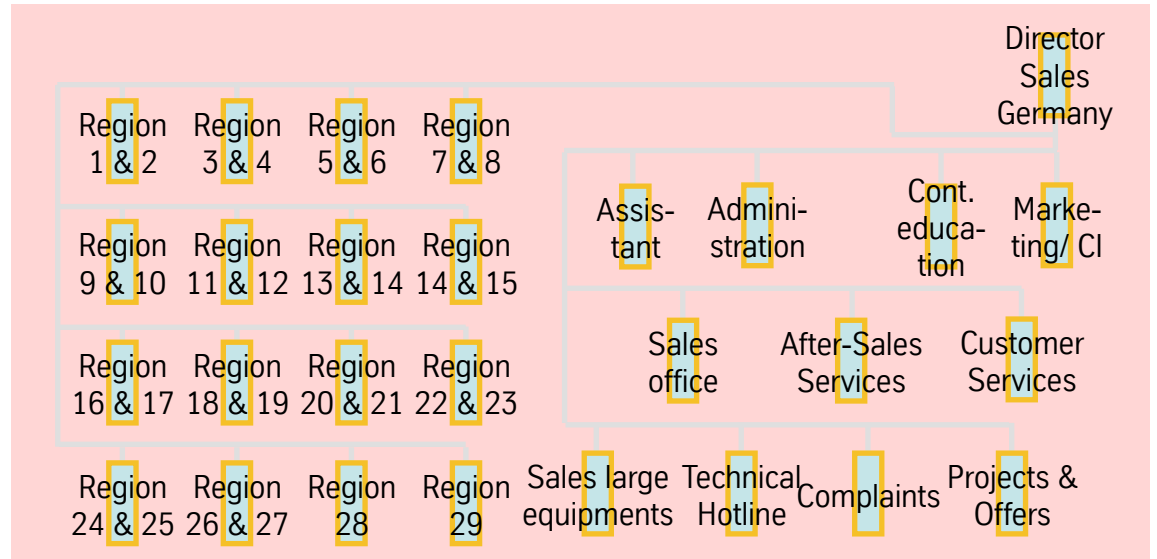
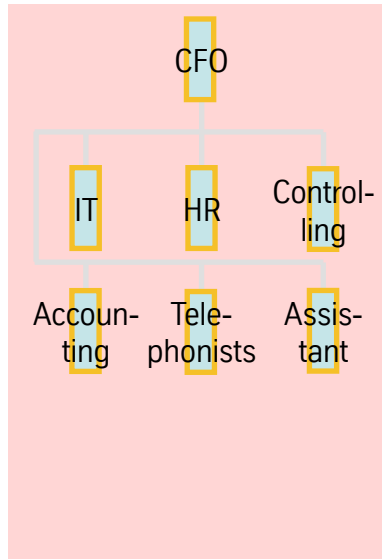
- **Structure:**
 - 5 directors: “Technology”, “Finance”, “Production”, “Sales Germany”, “Sales International”
 - 20 middle managers, many departments with massive coordination problems. Strong link between salaries and job titles.
- **Example: The firm's sales force in Germany**

Previous structure:

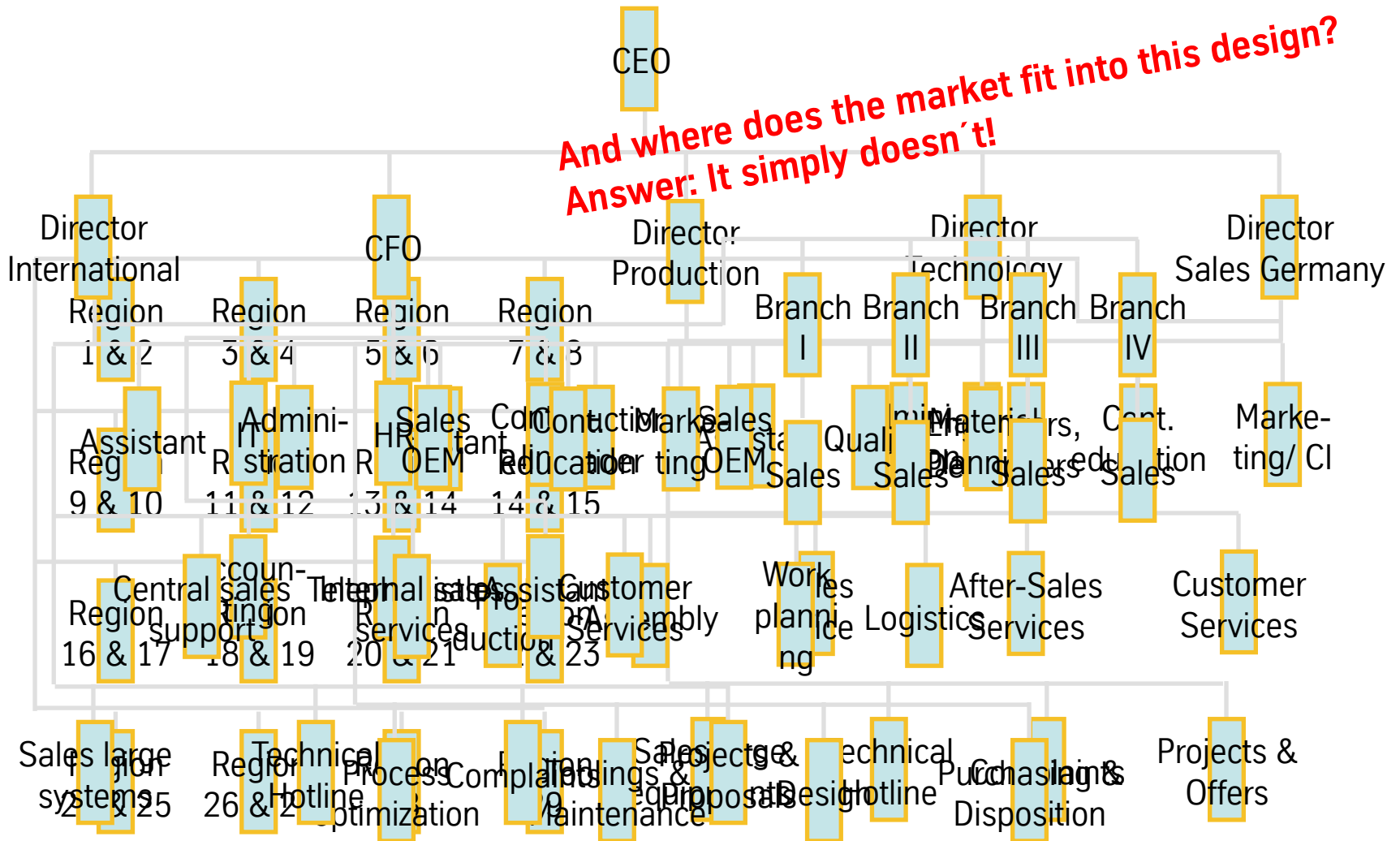
 - 29 sales force mavericks (whose decision making powers has been eroded over time)
 - 15 field engineers
 - 15 back-office sales employees

...neatly divided into different departments, with different bosses, targets and interests.

The case study: what the organizational structure looked like



The case study – putting the pieces of the previous tayloristic organizational structure together



The case study: What was done? “The week of truth“

Status of the project, roughly 12 months into the transformation initiative

Phase in %	1. Create a sense of urgency	2. Pull together a guiding coalition	3. Develop change vision and strategy	4. Communicate for understanding and buy-in	5. Empower all others to act	6. Produce short-term wins	7. Don't let up
100							
80							
60							
40							
20							

1. There is a **strong guiding coalition** that sustains the transformation.
2. All over the **organization**, “profound change“ is considered relevant, there is a sense of urgency.
3. Different groups in the organization (task forces) already work on specific changes.

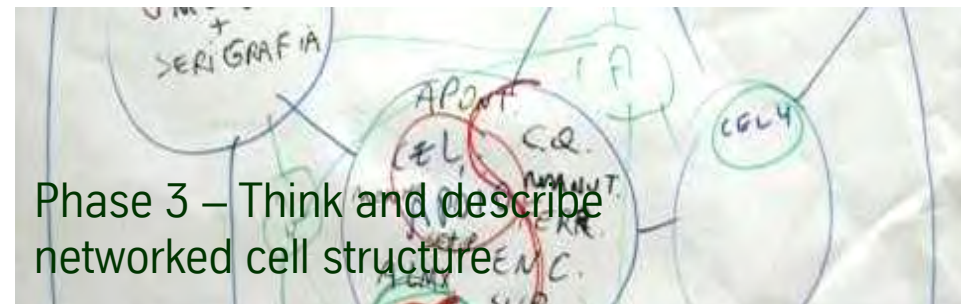
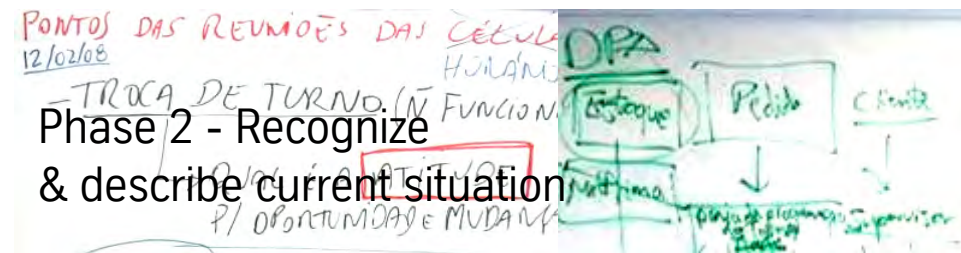
The case study:

What was done? “The week of truth“

Approach to redesign

- Three 1-day “cell-formation” workshops run in early 2008, about 1 year after the start of the BetaCodex initiative, held over the course of a single week
- Three groups formed:
 1. Market, 2. Product, 3. Central Services
- About 60 participants (approx. 20% of the firm's employees) representing all parts of the organization
 - from all areas of the firm.
 - from all hierarchical levels.
- Workshops designed to break up traditional departments and hierarchical power; the workshops start the creation of the new, networked, organizational structure

Workshop execution:

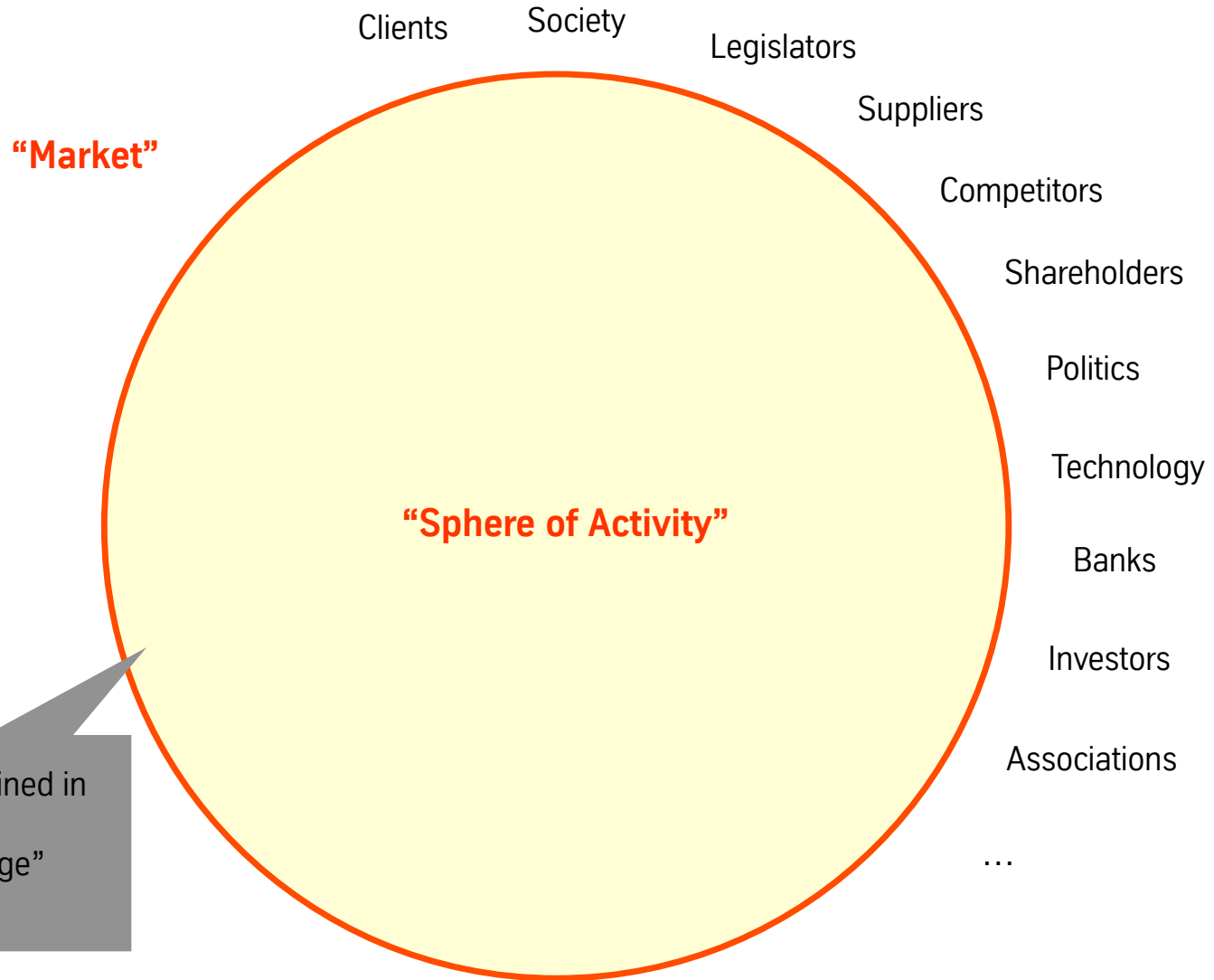


Group exercise during phase 3 of each workshop: “Think and describe decentralized networked cell structure“

Some of the design principles applied (see part I of this paper for details):

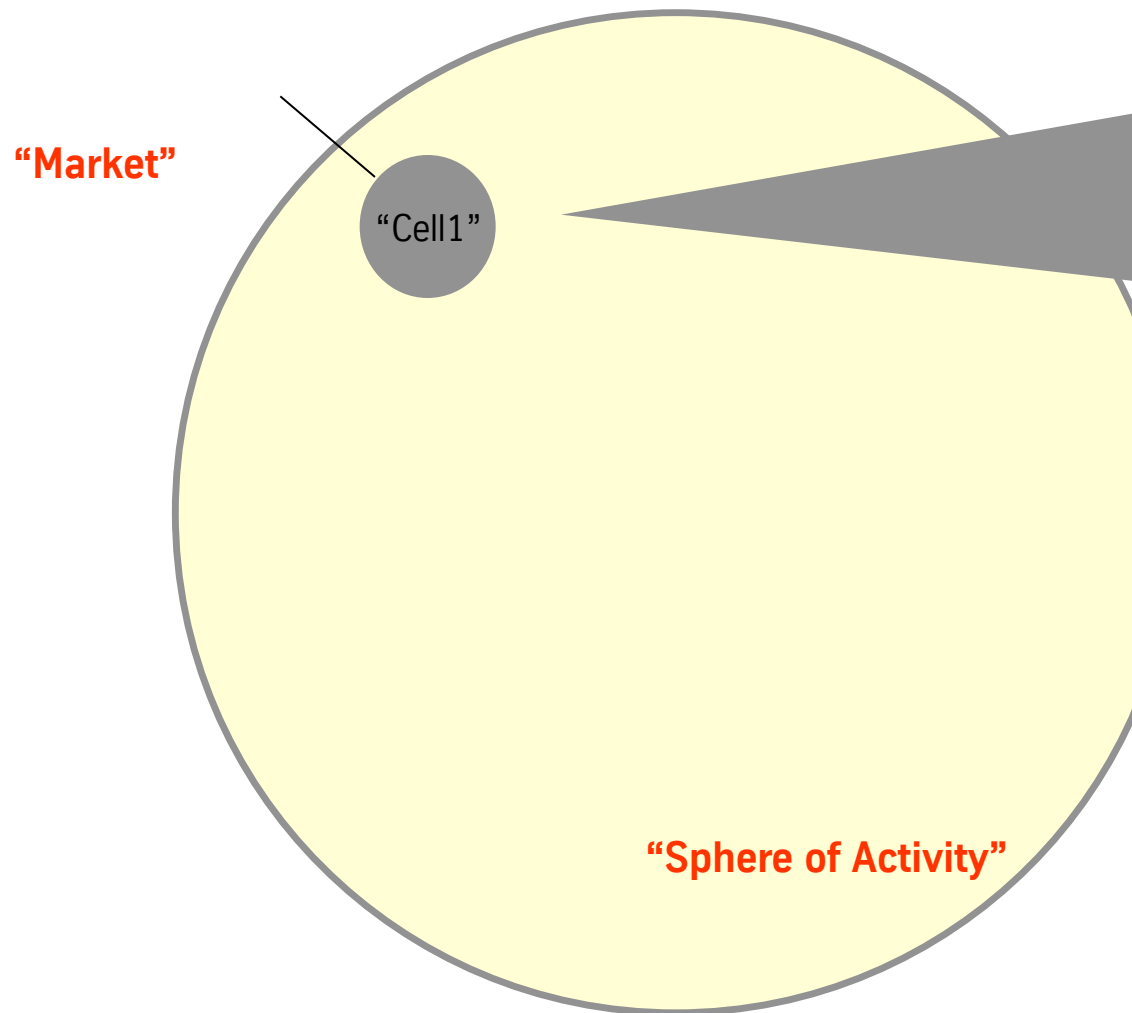
- The market is the boss (“outside“ rules!)
- There are four kinds of building blocks of a devolved organization:
 - A sphere of activity,
 - network cells,
 - “strings“,
 - “market pull“.
- All “key tasks“ performed in the old organizational structure must also be performed in the new structure (“business must continue!“)
- A cell is not a department: It is functionally integrated, not functionally divided!
A cell has clients - external or internal – to which it provides services.
And it has at least 5 team members, so that actual team spirit and peer pressure can thrive.
- Every cell as well as the entire organization applies the full set of 12 laws of the BetaCodex.

Cell structure chart for a “BetaCodex” organization: Defining the Sphere of Activity



Previously outlined in writing in a “case for change” manifesto

Defining cells and their roles



Defined during initial workshop:

- **Cell name and type** - permanent or temporary (if project or task force related)
- **Roles** - functions and duties
- **Clients:** Who are the cells' customers, internally or externally?

Defined later:

- **Team members:** Who is part of the cell team?
- **List of products/services** and pricing for internal services
- **Reporting:** P&L statement, internal and external benchmarks

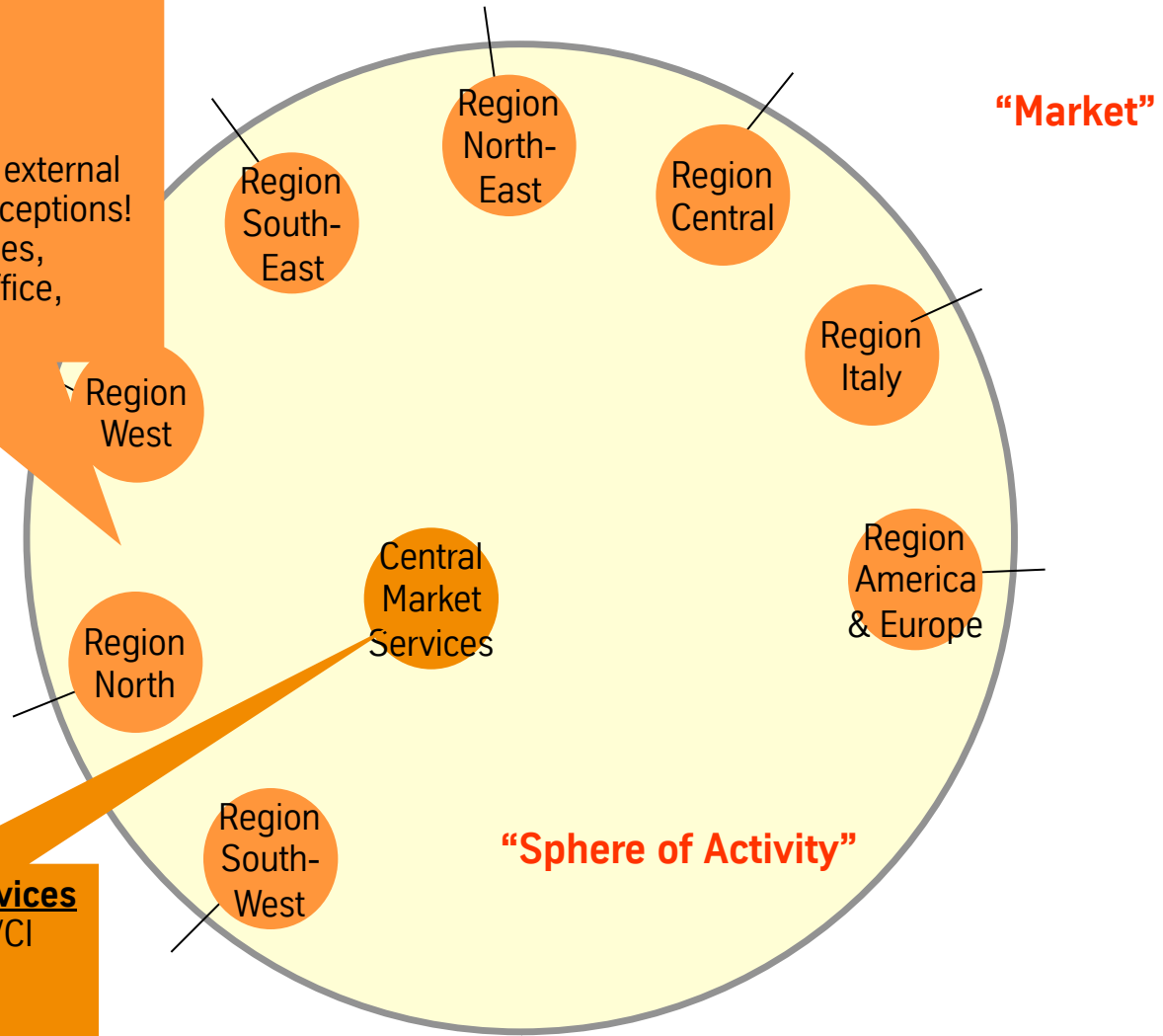
The solution identified during the design workshops, 1st part: “R-cells“ - empowered business teams located in the periphery

- **All customer responsibility** would reside within the so-called Regional cells, or R-cells, which are responsible for “everything related to the customer“ – integrating a wide array of previously separated functions (now: roles). The previous departments cease to exist.
- **There would be six** such integrated, virtual regional business teams for the German market and another two cells for other countries and regions, subject to cell division whenever acute.
- **Instead of different areas and people** aiming at different customer segments and channels – often determined by product lines, now, regional teams would
 - decide themselves on the customer segments they would target, and on their staffing.
 - each have a **full P&L account**, being **ranked** monthly among themselves in financial indicators, and **paying other cells of the network** for their services and products through an internal pricing system.
- **Support cells:** From the previous departmental structure with “market focus“, **only two market-related key roles would remain separated** from the newly integrated R-cells. These roles are “over-regional marketing“ (of which, as one organization member said, “very little should be done in the future organization”), and market-related training. These two roles would be integrated in a cell called “Central Market Services“

Cell structure chart for a BetaCodex organization, I: R-cells as “mini-firms” within the firm

Region cells (“R-cells”)

- Total business responsibility (“The R-cell is the firm”)
- All products, all channels
- **Clients:** Full ownership of all external clients in their regions. *No exceptions!*
- **Roles:** Planning & offers, Sales, After-sales services, Sales office, Hotline, Complaints



Central Market Services

- Overall Marketing/CI
- Training

Clients: All R-cells

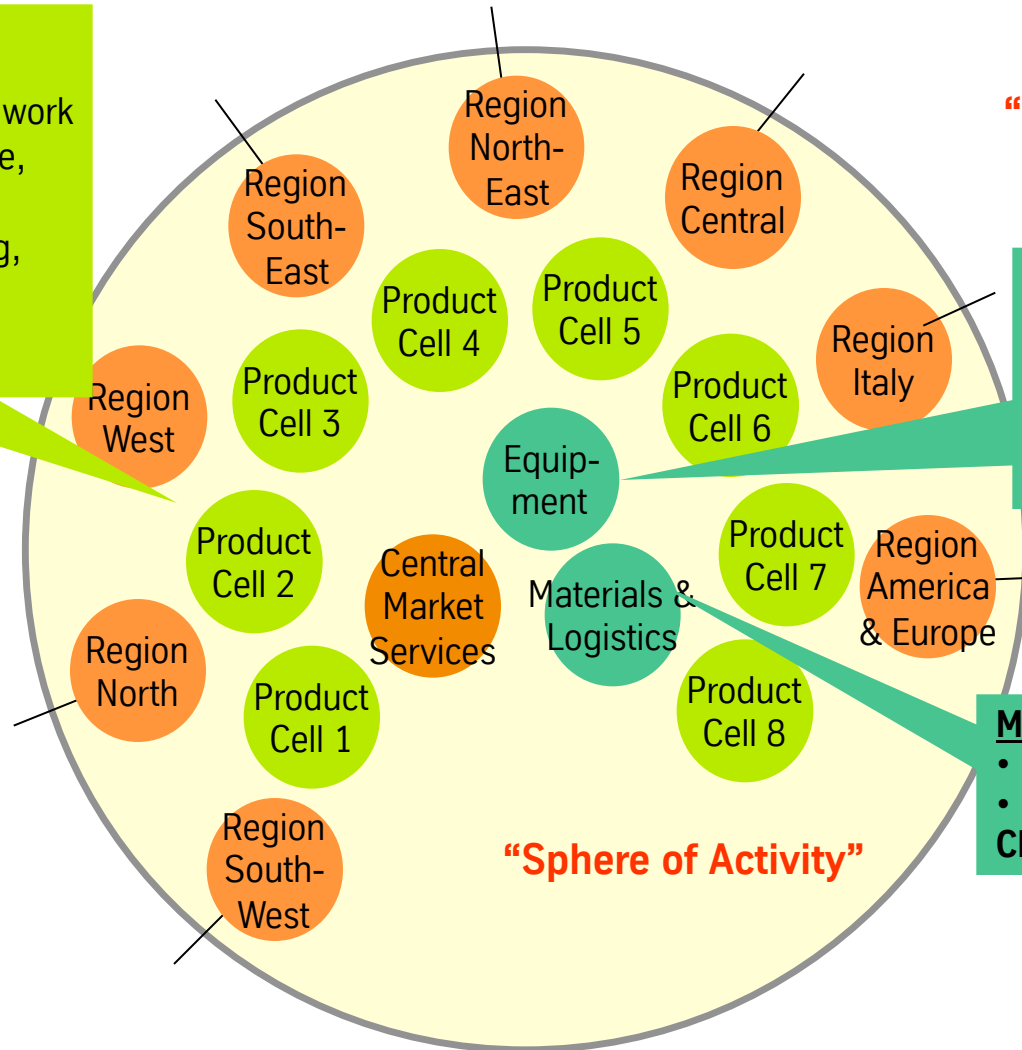
Solution identified during the design workshops, 2nd part: “P-cells” - from fragmented feuds to integrated product centers

- In the new design, the strict separation between research and development, production and supply chain departments is totally removed.
- **The consequence:** More humble production people would be teaming up with product engineers, which had previously been operating their own little kingdom, frequently blocking change and responses to customer demands.
- **Full responsibility for products throughout product life cycles** goes to product cells. In the case of this company, several P-cells (e.g. P-cells 1-4, and 5-6) would be dedicated to the same family of products, and “compete” with each other within the firm.
- **Internal transfer prices** will never include “margins”. All internal network cells sell their products and services on a pure cost basis, without retaining a profit. Profit is thus only generated by the R-cells.
- **Support cells:** Two additional specialist support teams for P-cells would be created: one responsible for “Equipment” (providing tooling and facility management), the other for in- and outgoing logistics.

Cell structure chart for a BetaCodex organization, II: Adding “P-cells” to the design.

Product cells (“P-cells”)

- **Roles:** Production, Process & work planning, Quality, Maintenance, Production logistics, Process optimization, Material planning, Design/R&D
- **Clients:** All R-cells



“Market”

Equipment

- Equipment (construction)
 - Facility Management
- Clients:** all P-cells

Materials & Logistics

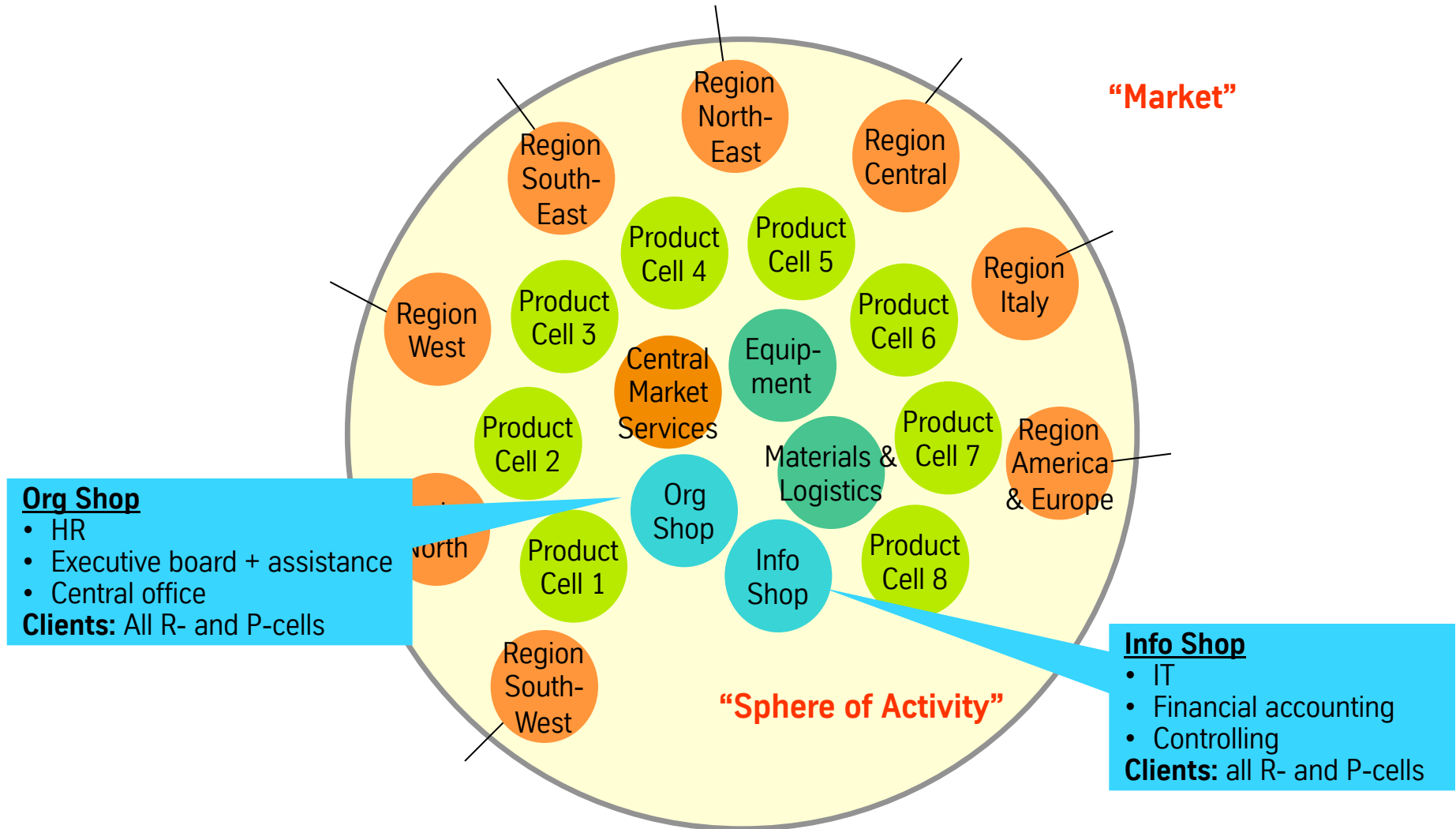
- Logistics
 - Purchasing
- Clients:** All P-cells

“Sphere of Activity”

Solution identified during the design workshops, 3rd part: “Internal Services“: from powerful central departments to devoted servants for business teams in the periphery.

- The workshop group arrived at a highly unexpected solution with regards to the **previous central “administrative“ departments**. The group gained the insight that the “administrative“ function and departments were basically catering towards “information“ and ”organizational“ services. The workshop participants consequently grouped staff and functions into only two support cells, now dubbed **“Info shop“** and **“Org shop“**.
- **These refreshingly new denominations** give the impression that these teams are something like a new “shop floor“ within the firm, signaling also that these cells would not be centers of command and control power, but service teams providing necessary informational and organizational help to the periphery.
- **Findings:** During the workshop, the managers from **Controlling and IT** concluded quite surprisingly for some, that they had in the recent past worked so much on joint projects and activities, closely working together most of their time, that it would make sense for them to form a joint team, assuming responsibility over “providing useful information for decision-making” within the firm. It was also concluded that **the CEO role** would be part of the Org Shop, together with the telephone operators, assistants, and HR.
- Interestingly, comparing the cell structure design with the previous departmental design, it becomes apparent that out of the previous departmental structure in the case company, only **one single team would remain basically unaffected by the new design**, at least initially. After the workshop series, the small “tooling“ area would be the only one that would remain identical in the cell structure, in terms of scope and personnel.

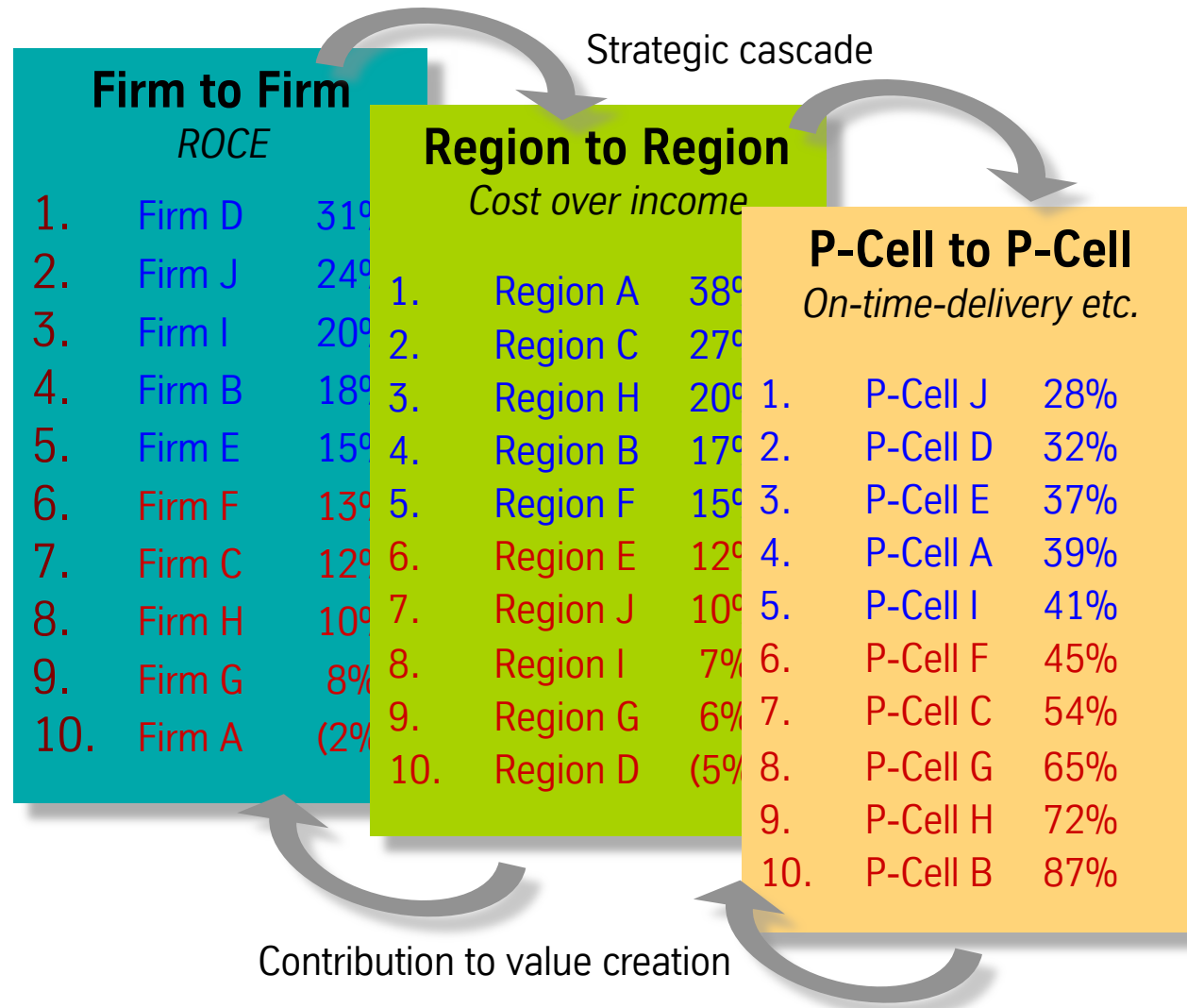
Cell structure chart for a BetaCodex organization, III: Adding the support cells “Info Shop” and “Org Shop” to the design



Observations about the cell structure draft design

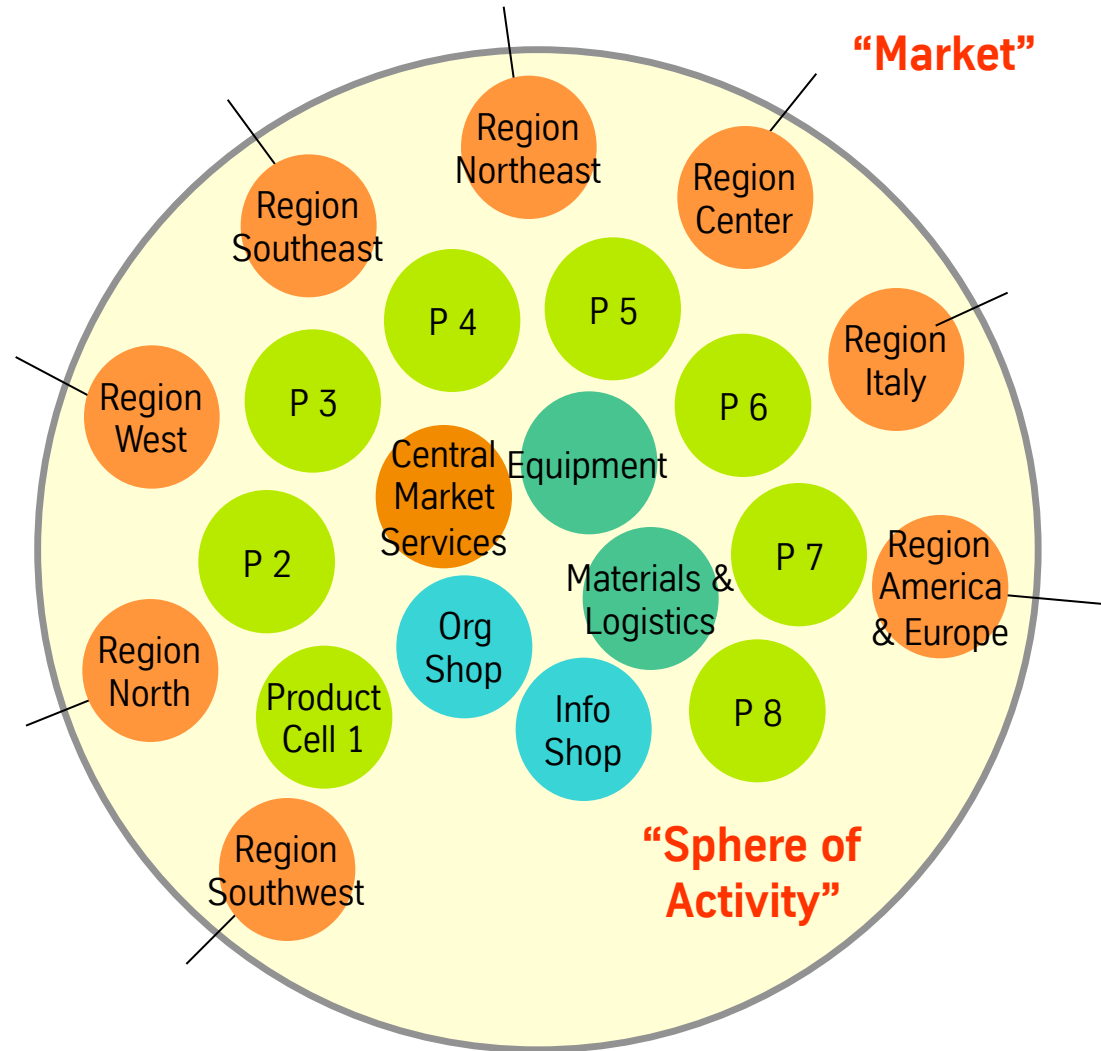
- **Highly intriguing, simple and scalable design** – easily understandable to all members and external stakeholders of the organization.
- **Functional integration** (as opposed to functional division, typical in tayloristic structures) has many advantages. However, it requires people to “un-learn” previous behaviors and biases, e.g. the myth that “functional specialization within a team” is superior to functional integration.
- **Cell design is a “no redundancy” design**, in principle. Since structural growth when triggered by cell growth, and subsequently by cell division, happens only on an as-needed basis.
- **All cells will have an own profit and loss reporting**, based on an accounting for internal services pricing/charges (“value flow reporting”). However, as an important principle, only R-cells can retain profit. All other, internally serving cells, operate on a cost basis, and thus aim at a financial “break-even”, or zero result.
- **Rankings, or “league tables”** can be used to challenge cells and to create external references for performance (see next slide).
- **The 12 laws of the BetaCodex can fully be applied to a cell structure**, but not to a tayloristic, hierarchical structure.

“Cell structure“ as a foundation for meaningful target definition in a “relative“ way, using league tables



Leads to lowest operational cost!

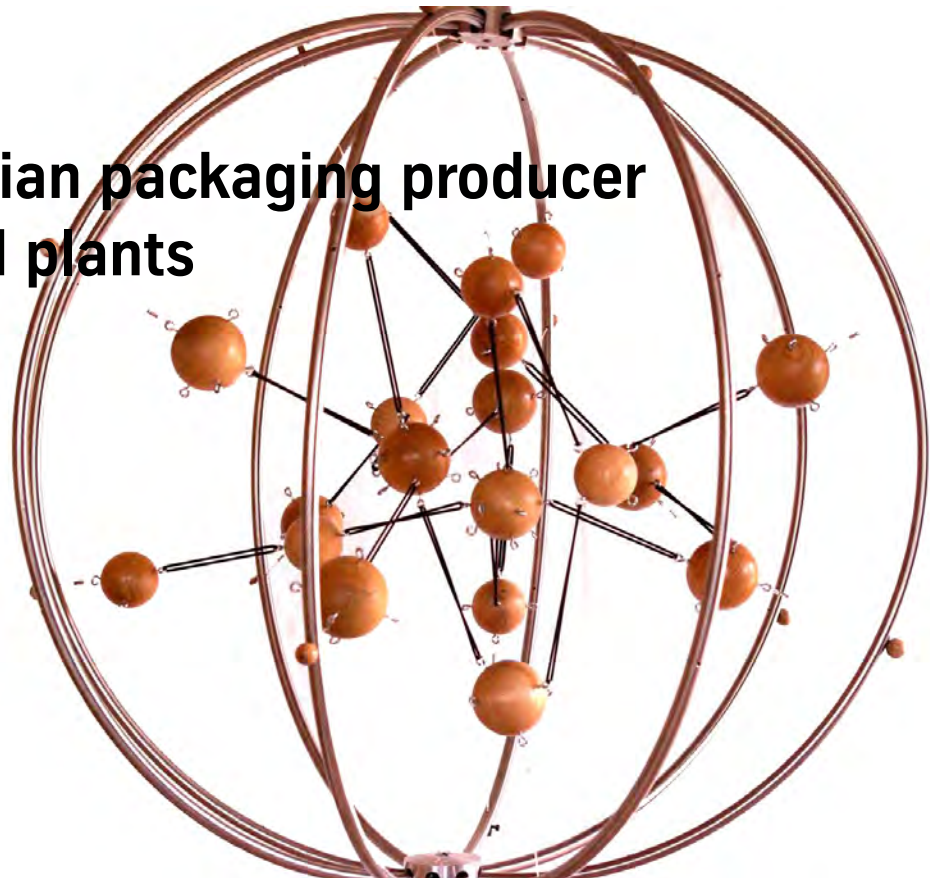
The case study: First full cell structure draft design after workshop series, to be discussed further within the company.



Further measures taken in the case firm

- Introduction of “trust-based working hours for everyone”
- Changes in reward systems:
 - Profit-sharing agreements for managing directors are dropped - switch to fixed salaries!
 - Objectives or variables for management staff are dropped (approx. 20% of income) – switch to fixed salaries!
 - Annual “appraisal interview” and allowance for employees are dropped (approx. 12% of income) - switch to fixed salaries!
 - Objectives and commissions for sales force are dropped (approx. 60% of income) - switch to fixed salaries!
- A homogeneous profit-sharing scheme for the group is created – focused on “relative market performance”, not on achievement of planned/ fixed budget figures
- Due to the cell-formation process there will be less management staff. In the new model:
 - Some of them would become acting as real leaders, as opposed to managers, according to our new values and model!
 - Some of them will become valuable members of the business cells, because of their mainly specialist expertise.
 - Some of them may not identify with the new model and will resign.

Chapter 2:
Case study No. 2 - Brazilian packaging producer
with customer-dedicated plants



Brazilian packaging producer with customer-dedicated plants

The case company in a nutshell:

- Producer of packaging for consumer goods firms, Brazilian country organization of a European multinational group.
- Approx. 400 employees in the country
- 8 production plants, dedicated each to a specific customer (consumer goods producers)
- Massive international and national growth potential due to structural change in the consumer goods industry...
- ...but also internal barriers and infighting in the company, lack of leadership, strong command and control culture from headquarters, lack of “improvement culture“ at local plants, lack of agility and responsiveness to customer demands by plants teams.
- Resulting in: Continuously decreasing profitability over the years, lack of competitiveness in acquiring new projects
- Plenty of hierarchy at plants, frequent quality problems, massive waste at some production sites or lines, strong command and control culture, strong departmentalism and nepotism.

Previous problems and structure at the customer plant

- Largest plant/unit of the company, with approx. 130 employees
- Strong power structure, with shift leaders exercising command and control over their teams, fiefdoms and intense game-playing between shifts.
- Departments like quality, maintenance etc. work to their own interests as well.
- Politics between shifts. Little scope for continuous improvement work. Fear culture within the unit.
- Scrap of up to 30% on one production line, lots of rework.
- Changes are often agreed upon, but not truly implemented, improvement initiatives get stuck somewhere.



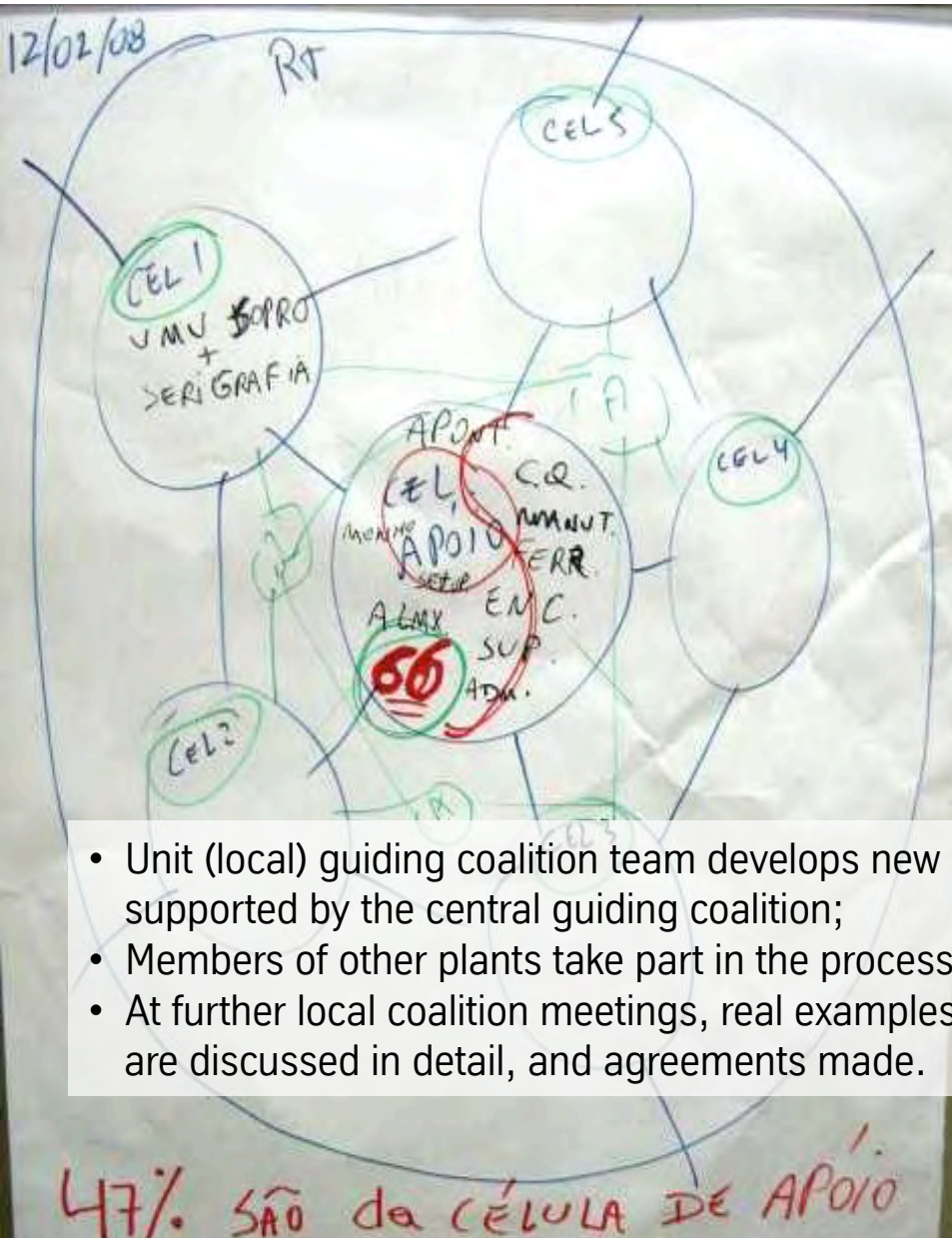
Approach to change: “Breaking the pyramid” at an industrial plant

Chronology and methods:

- **Week 1: Urgency for action** in the unit is identified by company-wide guiding coalition
- **Week 4: Initial event held at the unit** with 19 people from different areas of the local team (“Breaking the pyramid”)
 - Transparency in relation to changes to be made (by commercial director)
 - “Museum” exercise and Knowledge Turntables create urgency and vision for new model
- **Week 5: Local guiding coalition meeting**
 - group formed by plant manager
 - outline of the new model developed
- **Detailed preparation of the future cell structure**, including job analysis and functions during work sessions (local “guiding coalition”)
- **Weekly work meetings/follow-up** by local guiding coalition (“on Tuesdays”), supported by coalition support group
- **Action groups** against waste are formed



“Breaking the organizational pyramid “ at a production plant: Designing a new, networked model for a 130-people unit



PONTOS DAS REUNIÕES DAS CÉLULAS
12/02/08
HOMENS

- TRUCA DE TURNO (NÃO FUNCIONA)

↳ QUAL É A **ATITUDE**
P/ OPORTUNIDADE E MUDANÇA?

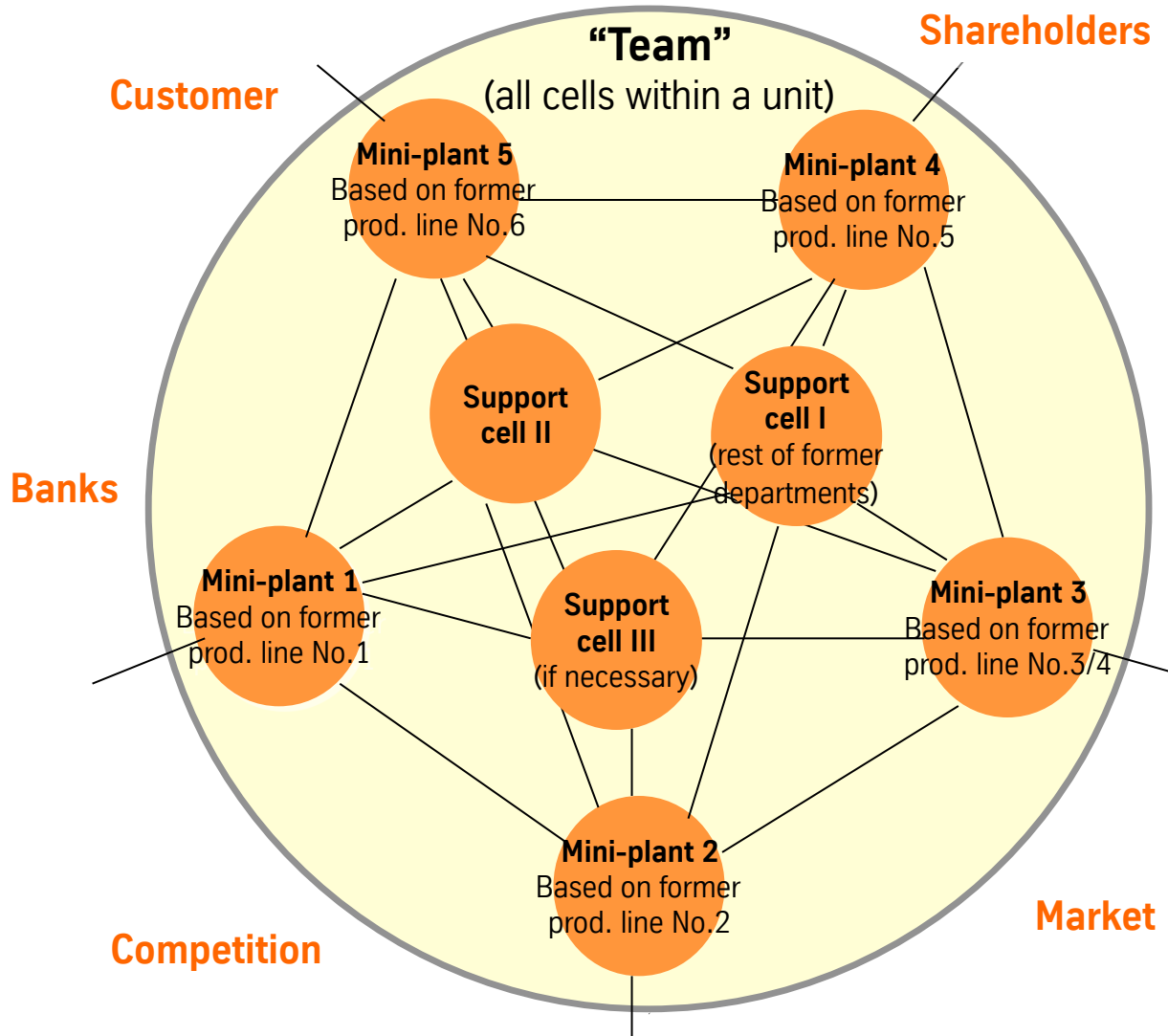
- DIVISÃO TAREFAS

↳ **RESPONSABILIDADE INDIVIDUAL**
E NÃO COLETIVO (CÉLULA)

PESSOAS AINDA NA ZONA DE
CONFRONTO EM ASSUMIR A
CÉLULA

- Unit (local) guiding coalition team develops new structure, supported by the central guiding coalition;
- Members of other plants take part in the process;
- At further local coalition meetings, real examples from the plant are discussed in detail, and agreements made.

The results



Principles for defining a “cell” within the new model

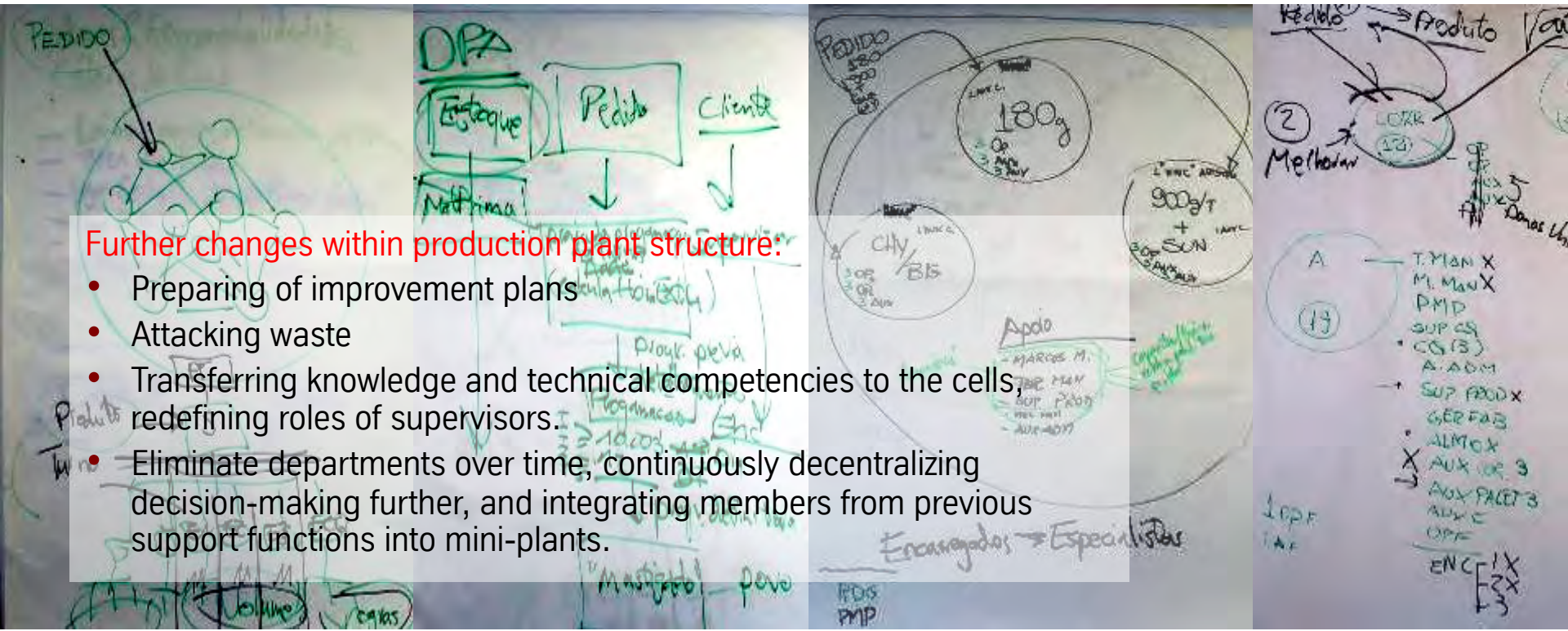
- It contains several functions, roles and duties, which would traditionally be separated into different departments. A cell integrates functions and roles
- It offers and sells products and/or services on its own, and is independent in its decisions about them.
- It is customer focused, in that it responds to internal or external clients, not to hierarchy.
- It is held accountable by the company leadership and is responsible for its own value creation.
- It applies the 12 laws of the BetaCodex.

Key learnings on structure, within the case company.

- **Newly created production cells, or “mini-plants“** to be formed around existing production lines or groups of lines. The concept of “shifts as teams“, which was previously predominant, would be totally abolished within the plant. There would be no more shift leadership staff whatsoever.
- In the previous structure, **around 50% of employees were working in “support functions“** – like quality, maintenance, internal logistics, etc. Those support teams would mostly be dissolved and team members integrated in mini-plant teams. Supervisors, except for the plant manager, would have to become mini-plant team members, or “specialists“ within the support cells - depending on their individual talents and preferences.
- **Salaries would not be affected by the changes.**
Job titles, however, would at some point be totally abolished, to support transformation.
- **Mini-plants alone are responsible for their “business“** – which includes quality, maintenance, staffing, production planning and scheduling, work organization, and ultimately also plant layout. They would be self-managed and empowered to acquire services from support cells at the plant and at the headquarters. They would also be empowered to challenge the support teams for continuous improvement. Mini-plants may elect speakers, and report directly to the plant manager (previously, there were two additional hierarchical levels).
- **Mini-plants organize their work themselves**, instead of being managed by supervisors, as in the old structure. To do this, new ways of displaying client orders, performing shift changes, cell coordination, and conflict resolution, would have to be developed.

Context: Foundation of a set of Task Forces begins, in order to “empower all others to act”

- Task Force “Cell networks within the plant units” (“Break the pyramid” – create networks of highly autonomous teams responsible for results)
- Task Force “Compensation systems” (reward success based on relative performance)
- Task Force “Financial and non-financial reports” (promote open and shared information)
- Other Task Forces (TFs) and Work Groups (WGs) to be created: “TF Cell Network in the main office“, “WG Waste reduction” in the units and at the head office



Further changes within production plant structure:

- Preparing of improvement plans
- Attacking waste
- Transferring knowledge and technical competencies to the cells, redefining roles of supervisors.
- Eliminate departments over time, continuously decentralizing decision-making further, and integrating members from previous support functions into mini-plants.

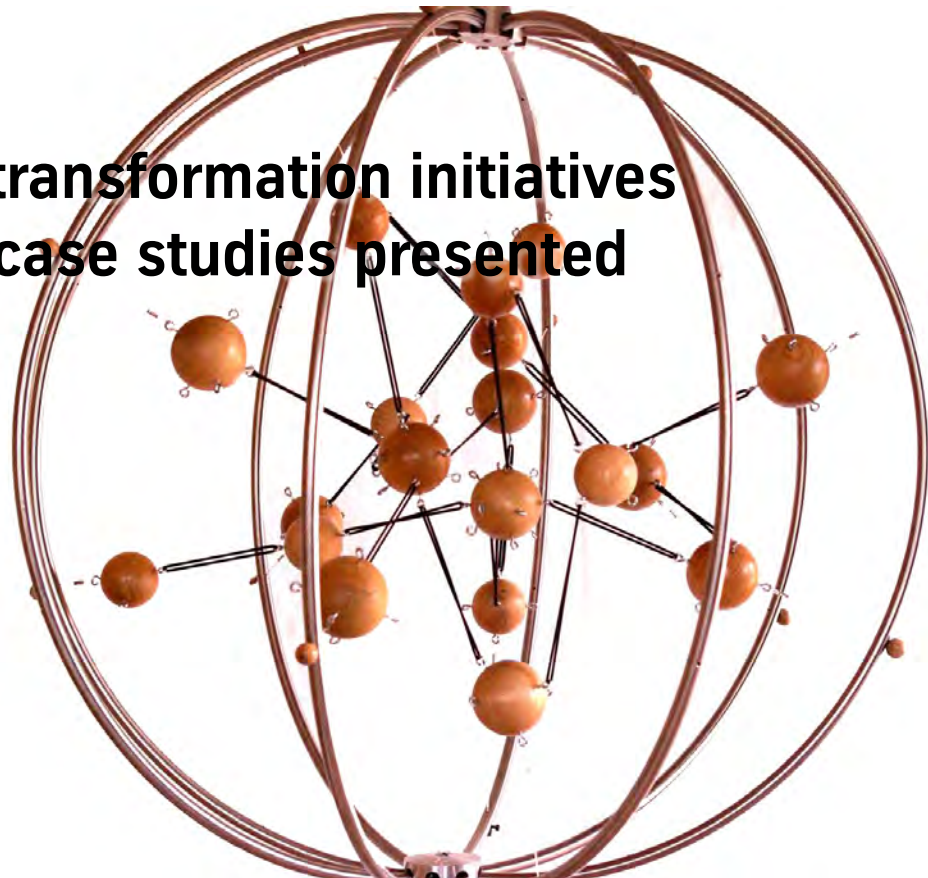
Decentralization and its consequences – a story

One episode from this implementation case illustrates well how devolution works in very practical terms.

In the previous structure, shift leaders (called supervisors) would elaborate a production plan for their shifts each day, for all production lines. The production plan would then be imputed into the ERP by the administrative assistant, and would also be archived in a black file that was always placed on a table in the shift leader's room. The official position was that this file could have been consulted by all plant employees. But that rarely happened. In practice, all decisions regarding work organization were taken by supervisors. Production scheduling was thus a process that was decoupled from the production team. Problems or needs for re-scheduling would remain obscure to team members, leading to conflicts, misunderstandings, and rework. As we discovered together, massive rework was often the consequence, as well as scrap of up to 30% in one production line.

When the process of devolving decision-making power to the decentralized production cells started, a decision was made to abolish the “black file”. Each production cell would do its own production scheduling on an as-needed basis – making changes whenever necessary. All production information would be transparent to all: Customer orders, for example, would be displayed on an open panel near each production line. Scheduling should not be done by a shift leader, but by the entire team, or any given elected team member. Orders would be scheduled by the team on an as-needed basis, as well as quality and maintenance work, and training. This way, self-management by the team would be initiated. The shift leaders would in the process lose all authority over the production process.

Chapter 3.
General conclusions for transformation initiatives
from the theory and the case studies presented



When, exactly, should you do cell structure design, within the transformation process?

- Don't approach your cell structure design as a mental exercise, decoupled from action.

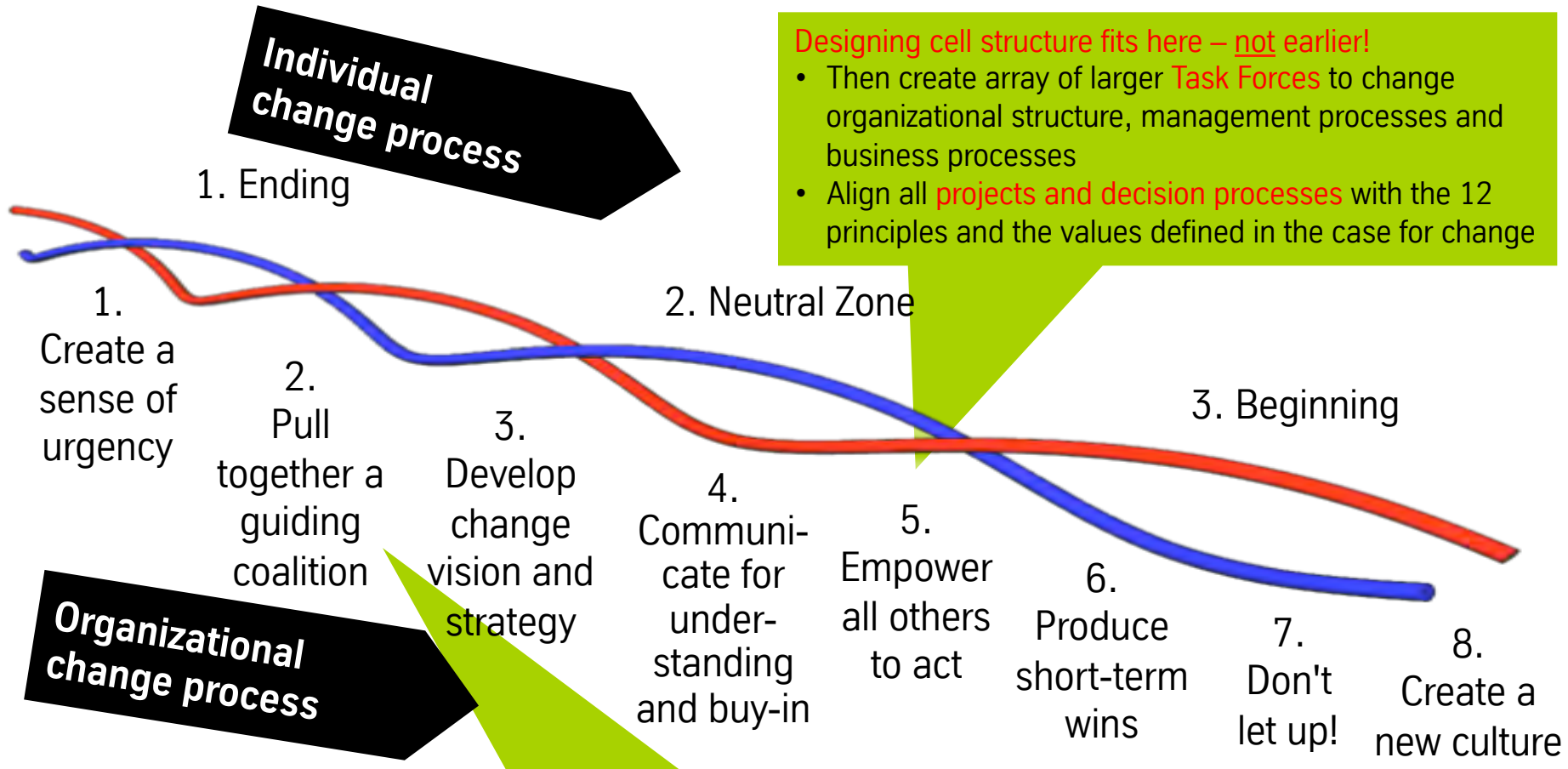
The idea of “finding the solution all on your own“ may seem tempting, but you should restrain from that. If you want to do it anyway, then avoid sharing your insights with others in the organization. The reason: Developing and agreeing on the new structure should be a shared process. Do it with a large group of representatives from all areas, and in a truly shared setting. Don't attempt to envision the full solution for your organization beforehand!

- Don't do it too early-on in the transformation process.

Do it in phase 5 of the Kotter transformation process, not before that (see next slide). You should consider it as an element of the stage called “Empower all others to act”. Why? Well, first of all, you depend on others to think it through and to make it real. So provide that you only start working out the new structure once a certain percentage of organization members are in the “Neutral Zone“.

Secondly, before starting on the cell structure design, you should have your guiding coalition firmly established, the “case for change” clearly articulated and widely communicated.

Embedding cell structure design within the “Double Helix Transformation Framework”



Designing cell structure fits here – not earlier!

- Then create array of larger **Task Forces** to change organizational structure, management processes and business processes
- Align all **projects and decision processes** with the 12 principles and the values defined in the case for change

What to do before that (selected):

- Write the **case for change**
- Build **awareness** through selective action (e.g. abolishing budgets)
- **Win hearts and minds**, train for empowering leadership styles and act for more transparency

Further insights into the transformation process, gathered during the cell structure design phase

- **A “high-quality“ cell structure solution will only emerge from a true group exercise.**
What we have learned is: no BetaCodex specialist, however smart, or even with intimate knowledge of the firm will develop as smart a solution as a varied team of company representatives. Consultants as specialists on the method should basically challenge organization members´ thinking, so that they themselves can arrive at a smart, consensus-based and satisfying solution.
- **Involve as many people as possible into the process.**
Involve all people from the organization (if the organization is small), or with representatives from all departments (ideally: representatives democratically elected by their teams).
The initial draft of the cell structure design must be worked out by the organization's people, or their representatives, because only a design developed by the firm's members themselves will gain acceptance, it must be deeply rooted in the current reality and in the organization's current sense of urgency. Creating this kind of involvement guarantees that the process and the output of the design workshops is both relevant and perceived as appropriate.
- **Cell structure design means unleashing a highly emotional process.**
It is likely to mean a turning-point within the wider transformation initiative. This is why we have sometimes dubbed this moment the “week of truth”. Support for transformation, as well as opposition, or resistance will manifest themselves in a more accentuated way after this exercise. Any organization will have to deal with this emotional process in a constructive way, because denying it would lead to a backlash.

Involve as many people as possible in working out the cell structure design.



Let's do this together!

See John Kotter's books "Our Iceberg is Melting", "Leading Change", and "A Sense of Urgency", for further information about his 8-phase approach for profound change.

More reading and resources

For more about **complexity-robust organization**: see our white papers no. 12 and 13.

For more about **organizational structures**, see our white paper no. 11.

For more about **“relative“ performance management**: see our white paper no. 10.

For more about **problem-solving in complexity**, see our white paper no. 7.

For more about the **BetaCodex**, see our white papers no. 5 and 6.

All papers can be accessed from this page: www.betacodex.org/papers

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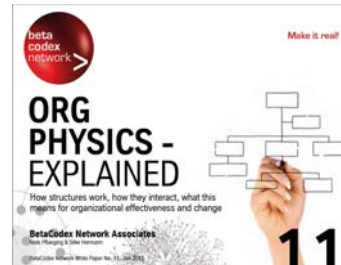
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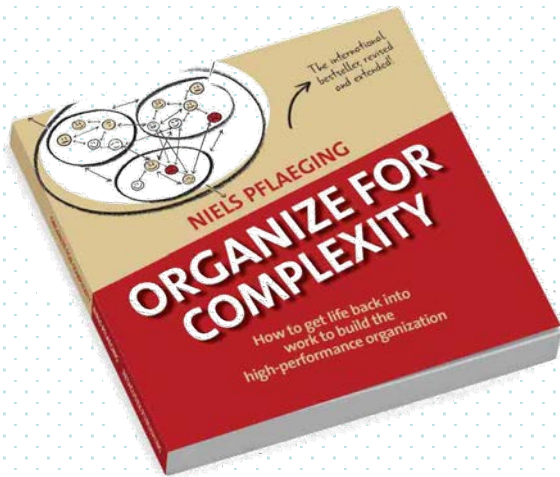
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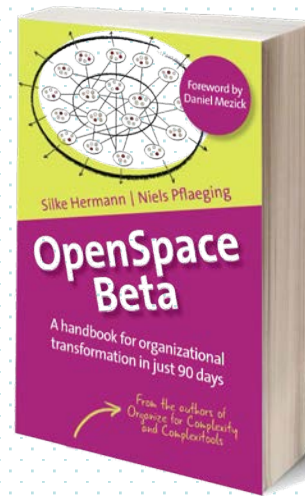


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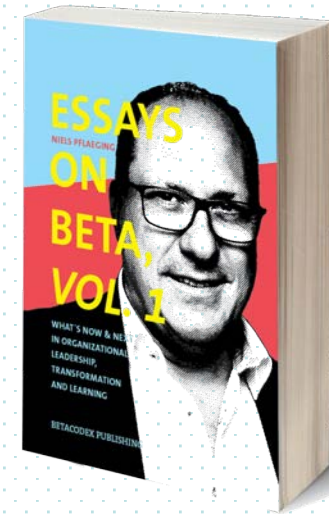


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