

# **THE REPUBLIC OF KAZAKHSTAN**

**“BASTAU” METHODOLOGY AND SOFTWARE PACKAGE**

**Big Data Spatial Visualization Technology for Multinational  
Corporations and Government Entities**

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No. 1073. July 26, 2013

**THE ESSENCE OF INNOVATION:**

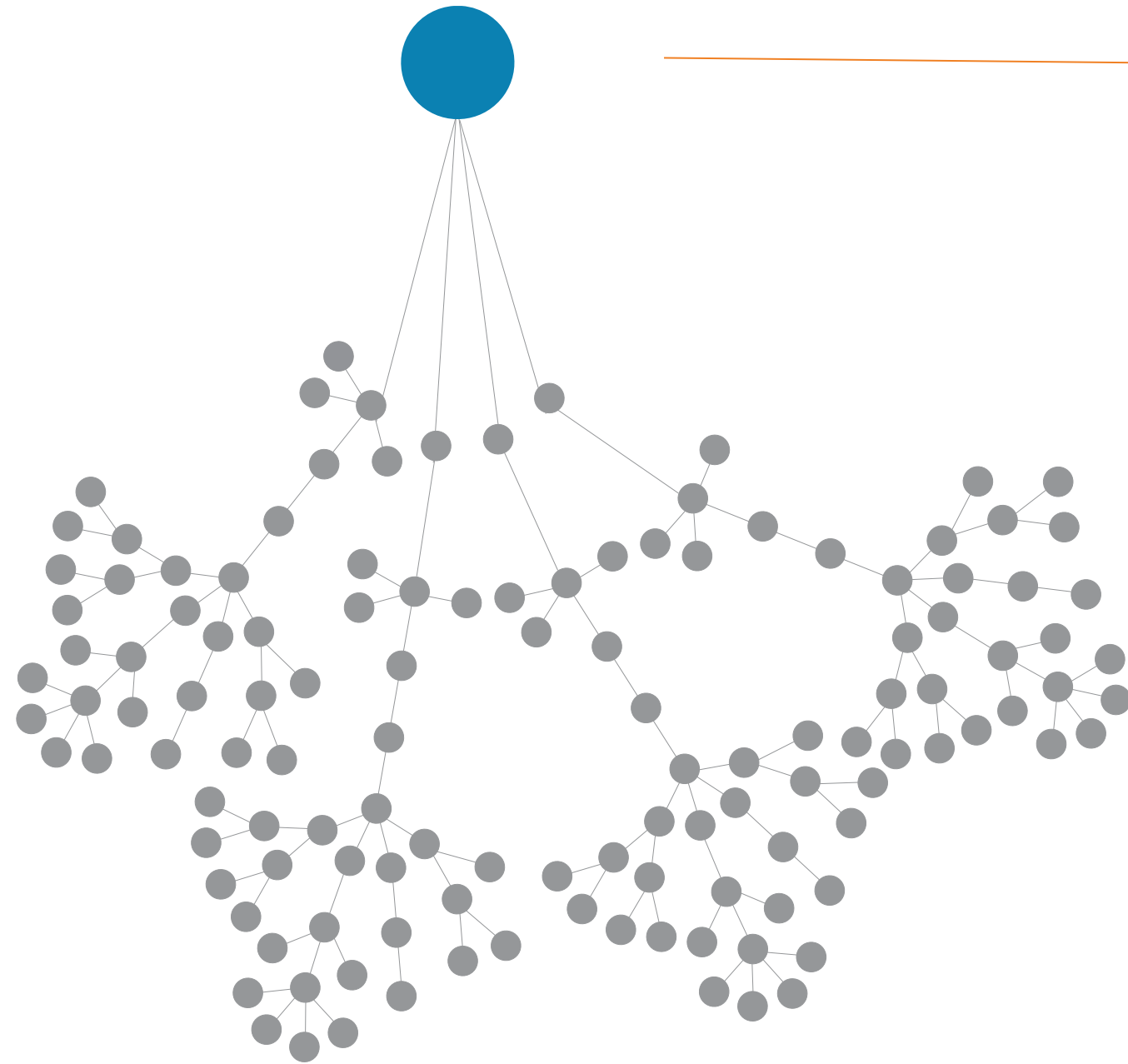
**A NEW STAGE IN EVOLUTION OF  
MANAGEMENT THEORIES, PHILOSOPHIES,  
PRACTICE AND THOUGHTS**

**WE ARE CREATING  
A NEW METHOD OF MANAGEMENT**

# A DATABASE FOR ADOPTING STRATEGIC DECISIONS

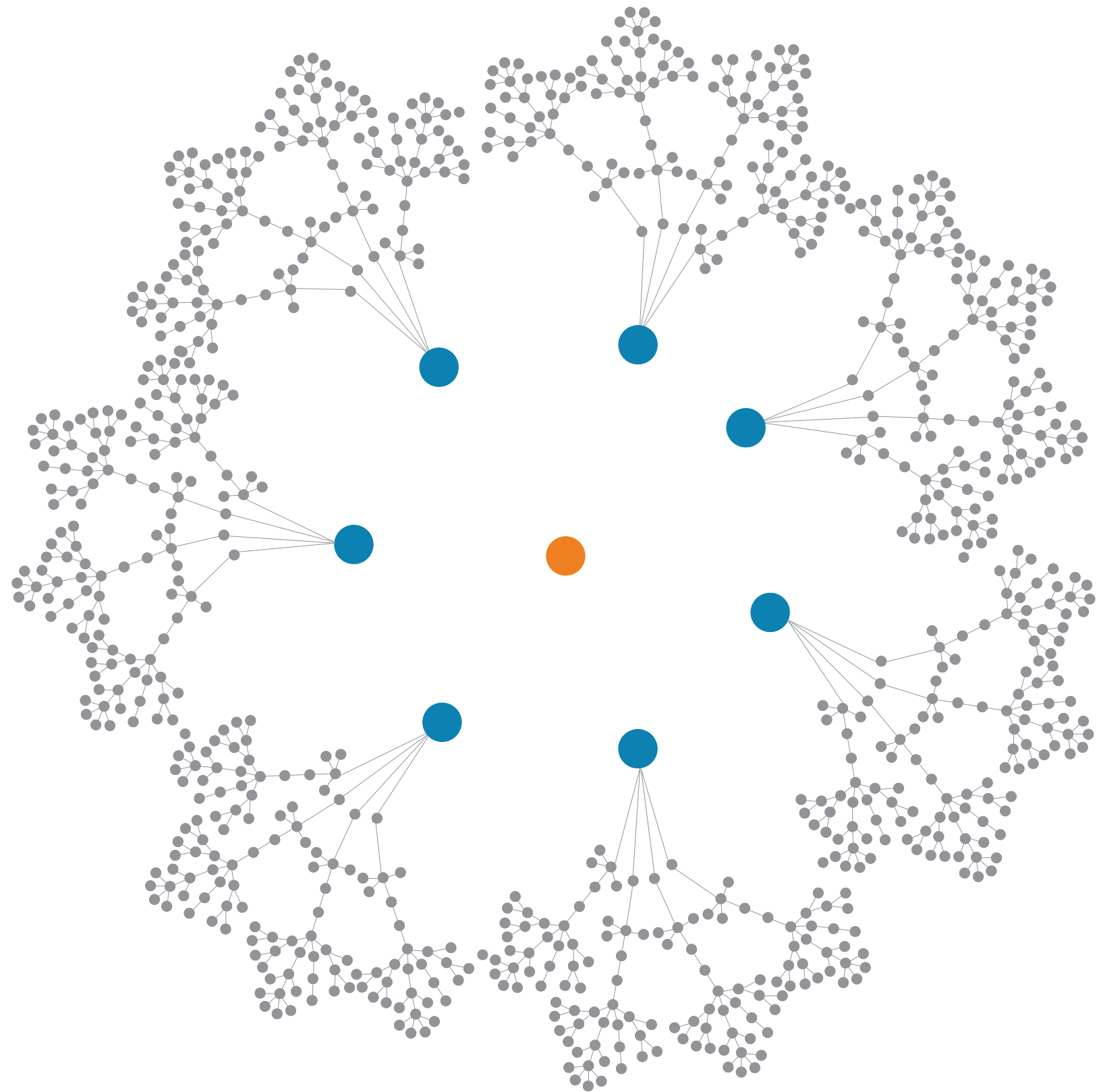
- full structure of an organization
- data on key leaders
- map of divisions and development plans
- distribution of financial flows
- staffing
- key projects
- tangible and intangible assets
- key customers, partners and contractors

# METHODOLOGY



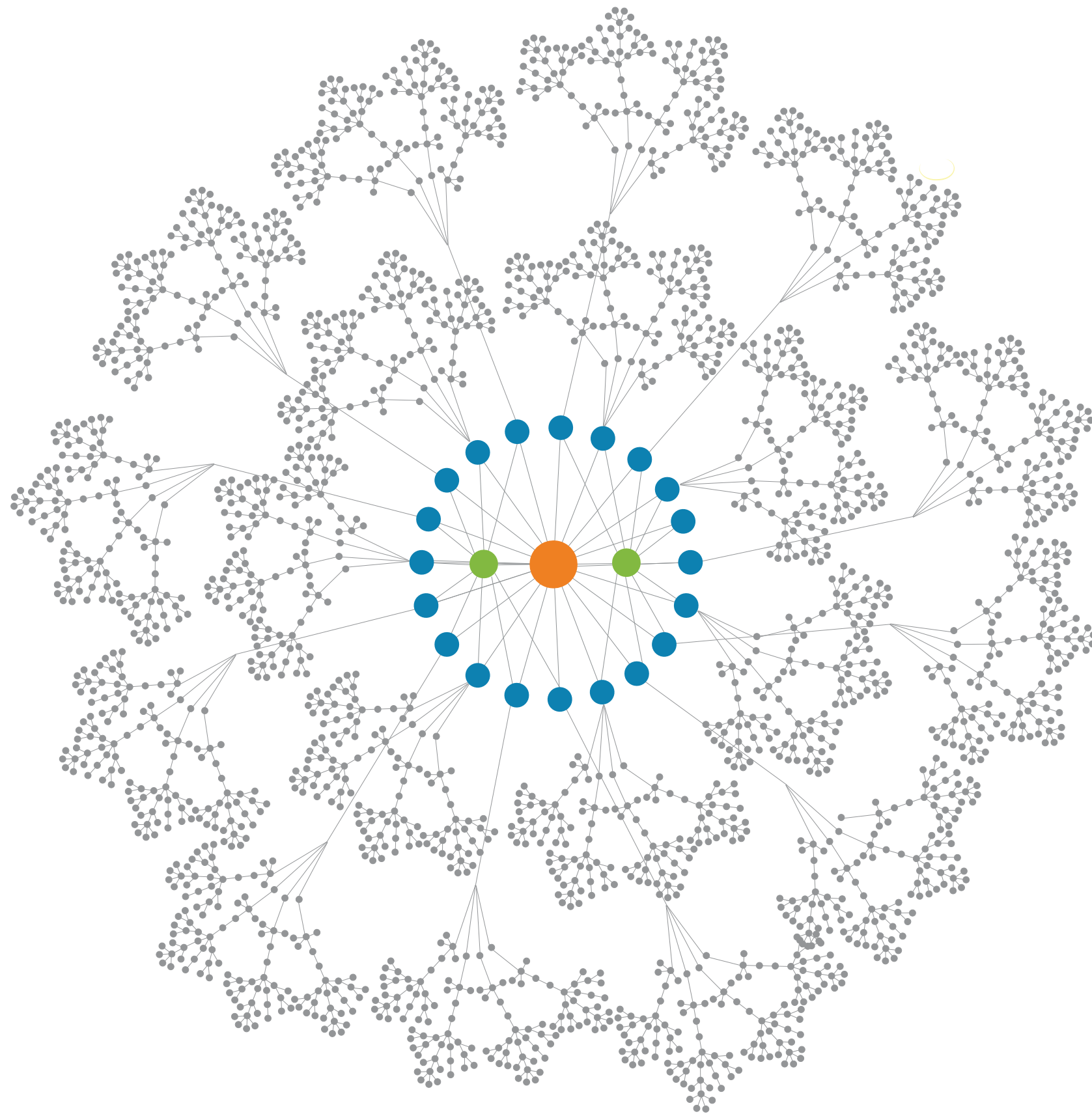
**AN ORGANIZATION  
STRUCTURE**

# METHODOLOGY



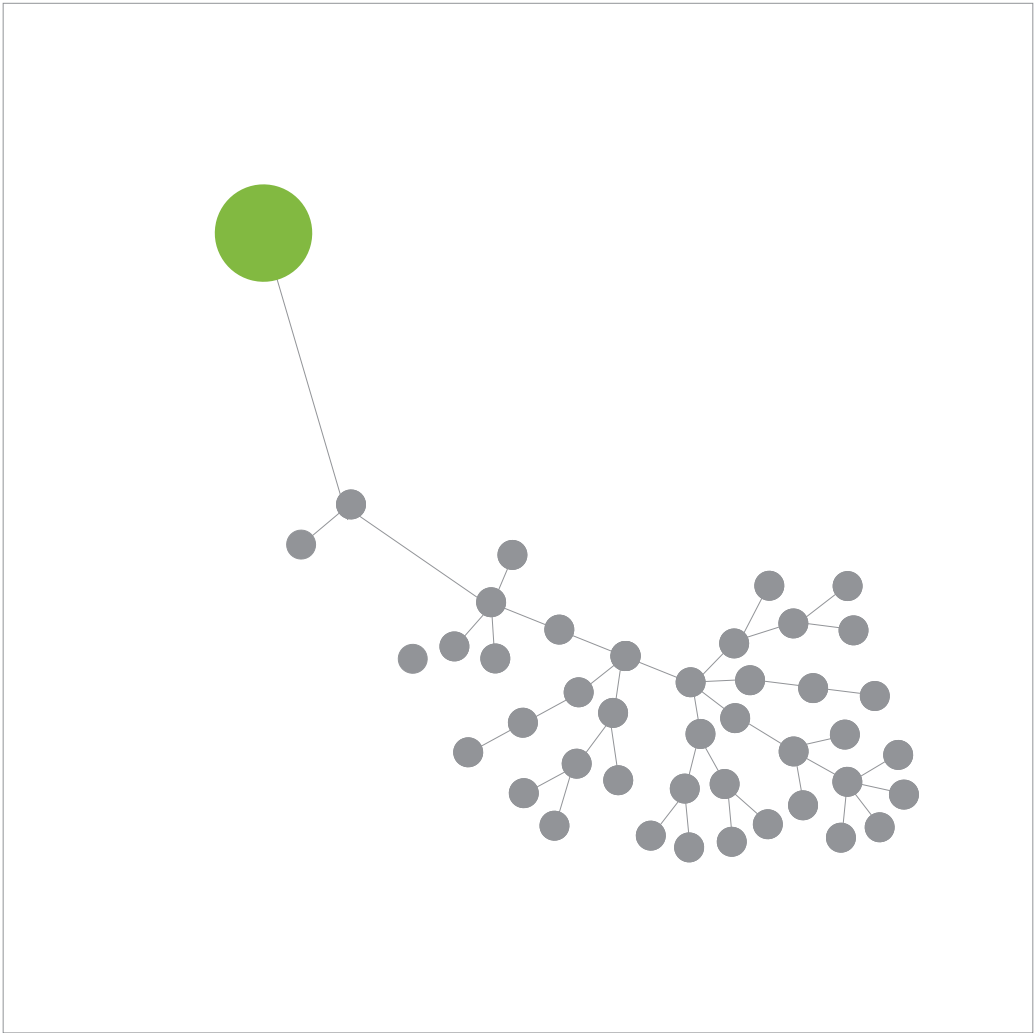
# THE STRUCTURE OF HOLDINGS

# METHODOLOGY



**A GOVERNMENTAL  
STRUCTURE**

# AN EXAMPLE OF A SUBSIDIARY COMPANY IN KAZAKHSTAN



● **MINISTRY OF AGRICULTURE OF KAZAKHSTAN**

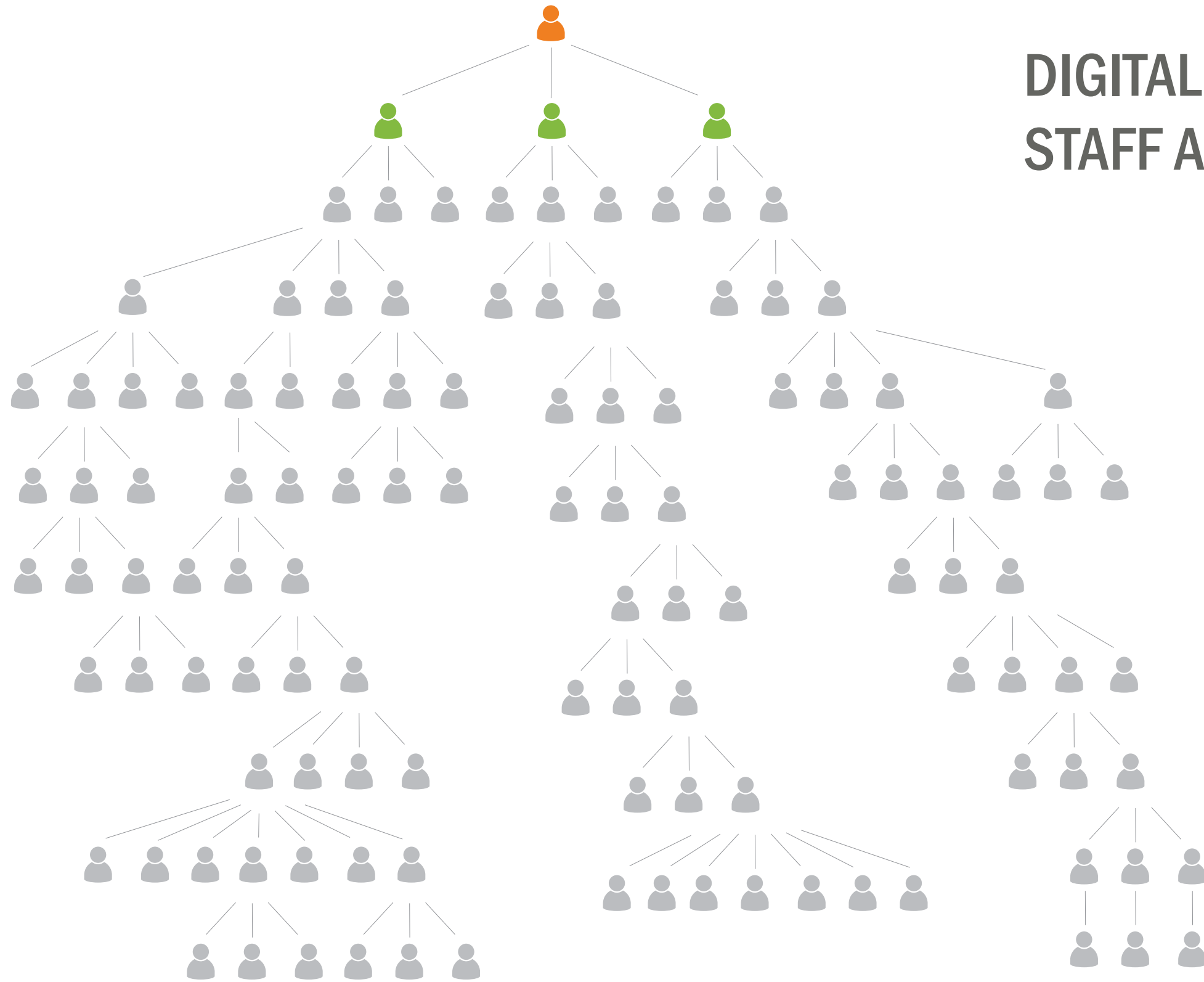
● **JSC “NATIONAL AGRARIAN SCIENTIFIC AND EDUCATIONAL CENTER”**

There are 47 legal entities, including:

- 24 Research Institutes
- 17 Experimental Farms

- 3 Service Companies
- 3 Agrarian Universities

# METHODOLOGY



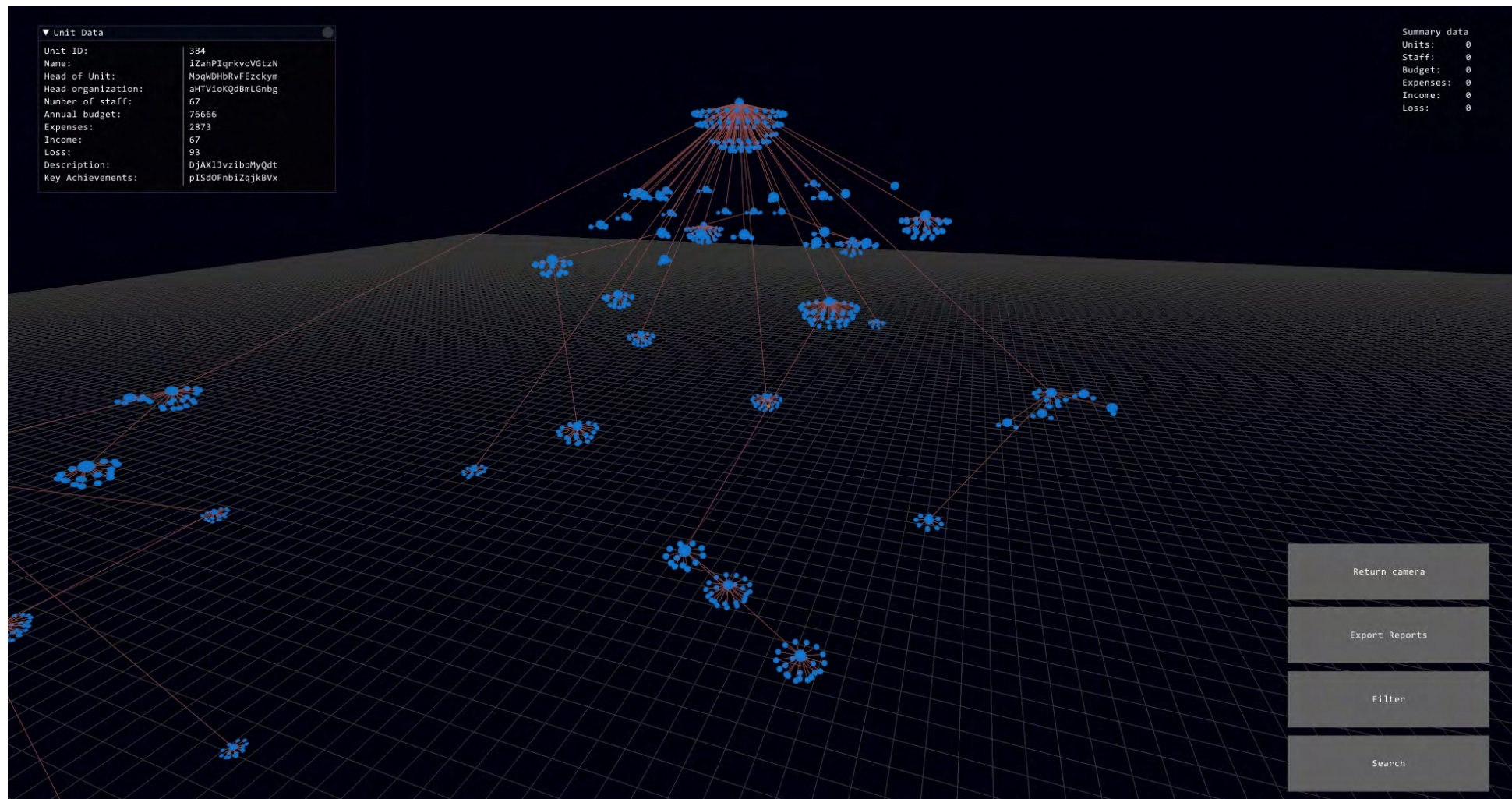
## DIGITAL SPATIAL MAPS: STAFF AND DIVISIONS





# TECHNOLOGY

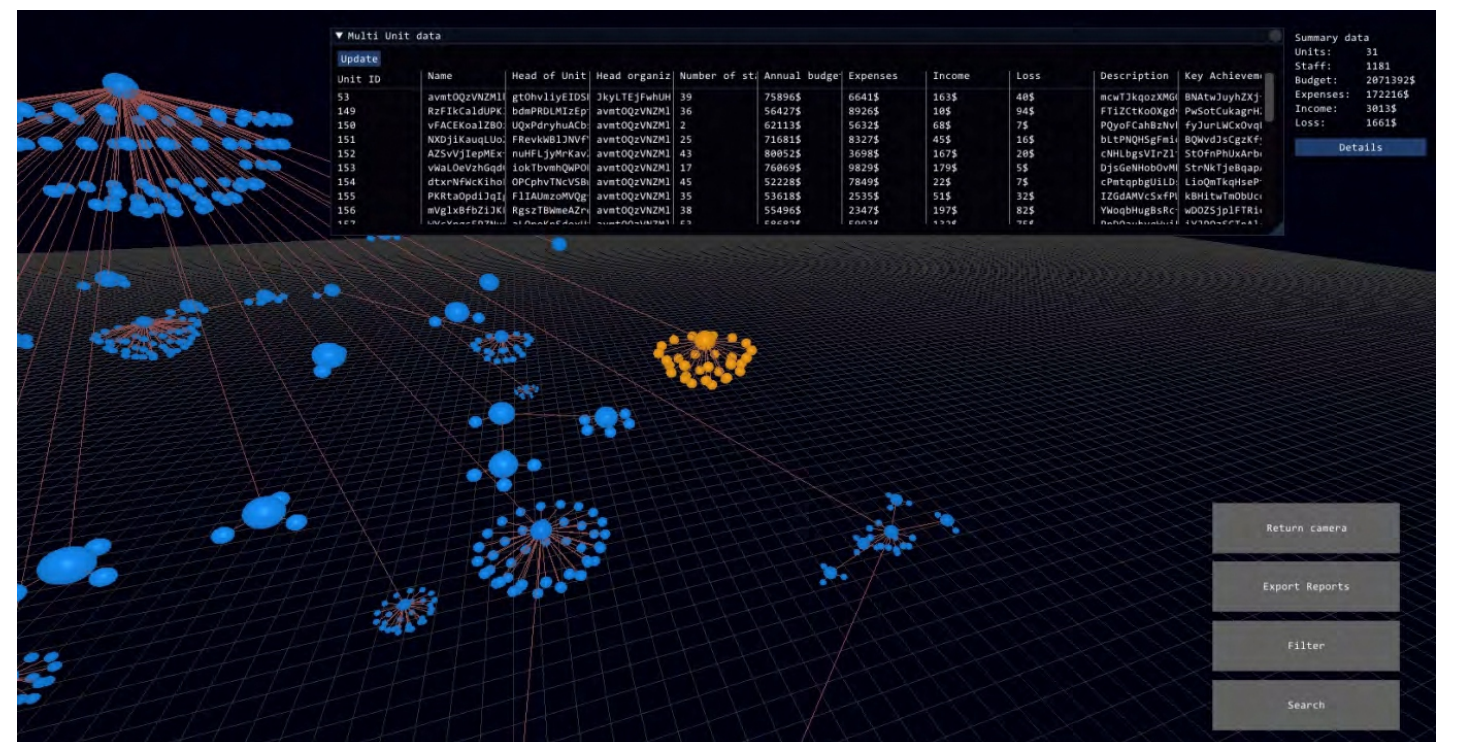
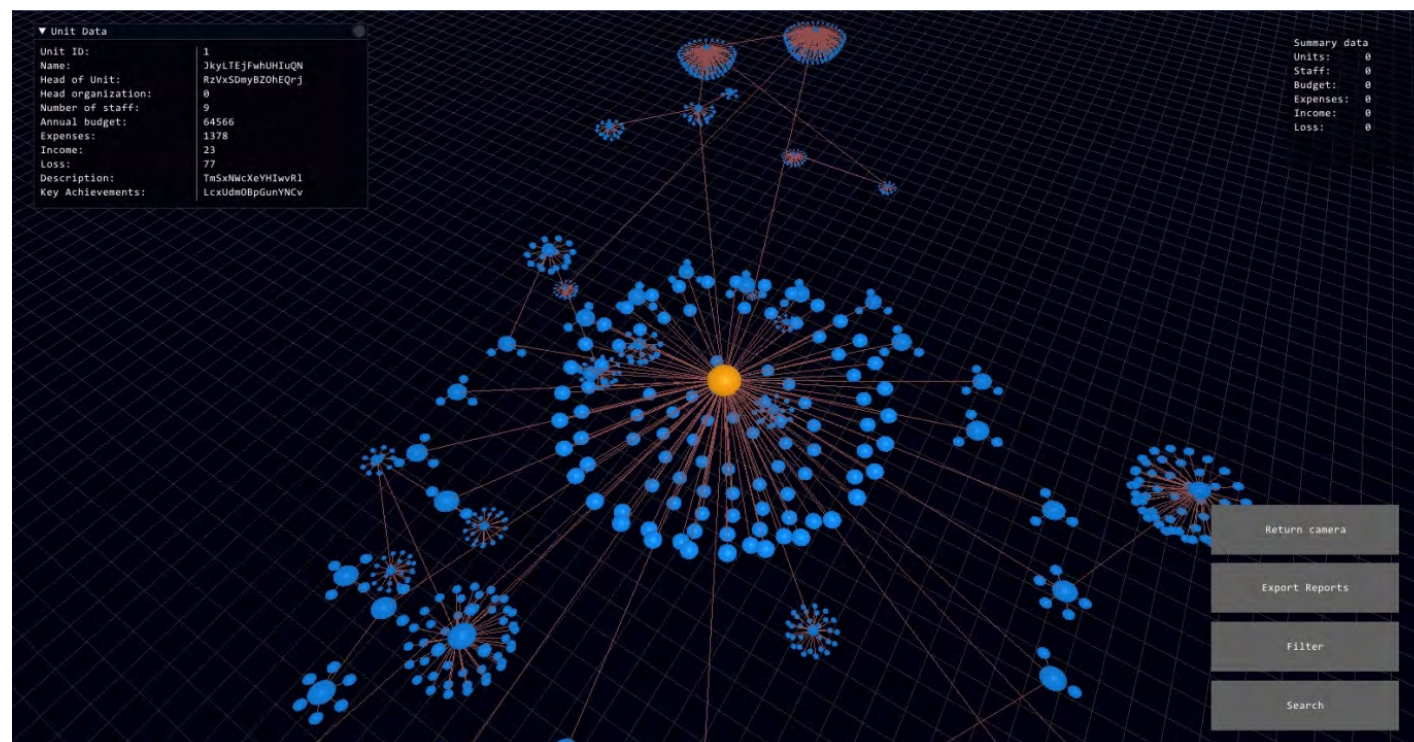
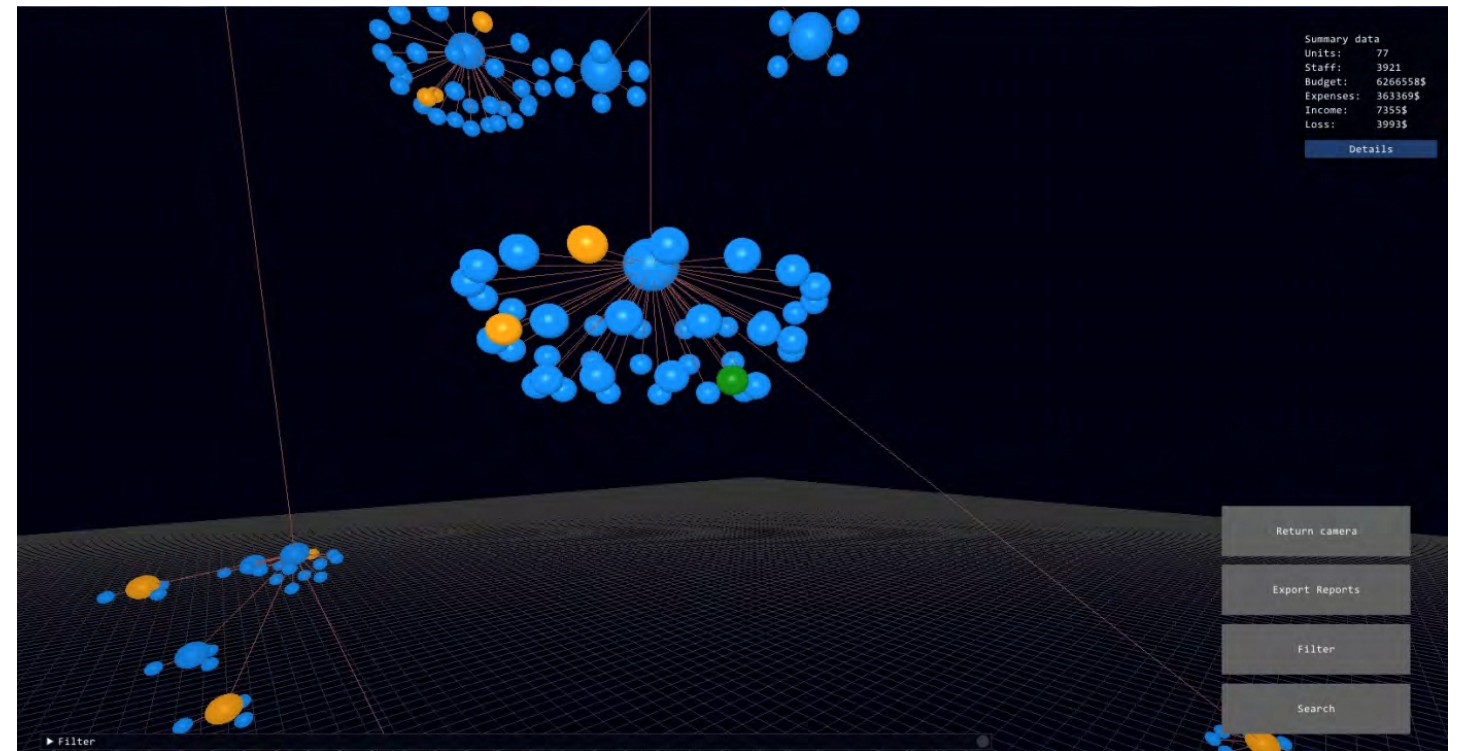
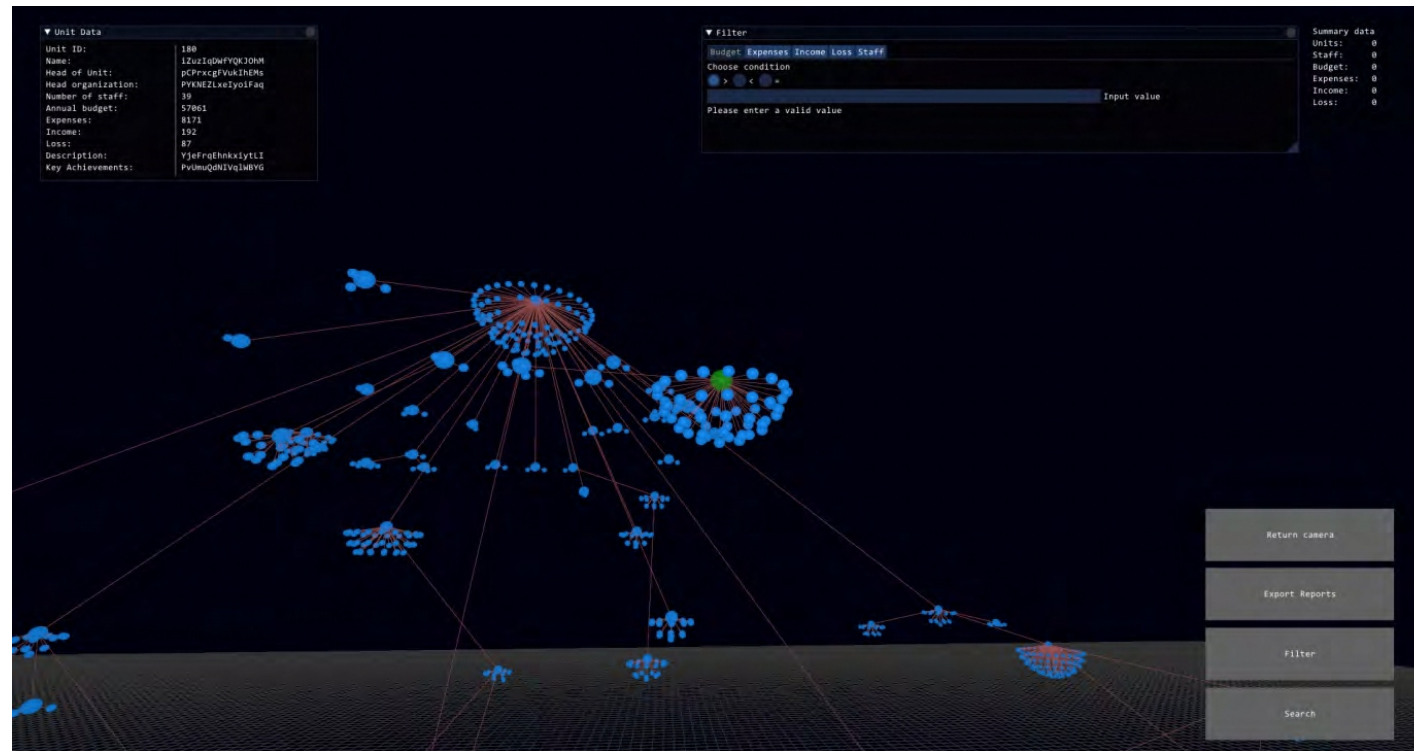
A new generation information platform that supports the management activities of large organizations by projecting key organisation data structures into 3D spatial visualization format



- system analysis of the structure
- instant access to the data in real time
- simulation
- monitoring
- interactivity

- high-speed data collection
- coordination of activities

# VERSION 1.0 - CLASSIC



# AN ADAPTIVE USER INTERFACE

Multi Unit data

Unit ID	Name	Head of Unit	Head organization	Number of staff	Annual budget	Expenses	Income	Loss	Description	Key Achievements
1	JkylTEJfWuHUIQn	RvVvDmBZOHQrj	0	9	645665	13785	235	775	TesVwCkcyVHlVv1	LcYdW0p0mYBCV
2	AnuNE001FPjvDL	VfVvDzLhTQIXan	JkylTEJfWuHUIQn	88	767885	30725	825	695	Qk0TgWwHEGIPyl	sIbzFFUcAuoy0NY
3	WfDmPpYkYcVQUP	VyVvDzLhTQIXan	JkylTEJfWuHUIQn	10	722878	60586	215	975	L3DmJyWpPDmZw	ctIofFayLcLSlQO
4	ZfDmWgZfYcLIE	noDZuSfPwMw	JkylTEJfWuHUIQn	72	740615	40785	845	715	QZTlOJfWwMzC	wFfVw0j0p0S28W
5	wvQrZheSaRQVL3p	oKOPZfVxKwRlDU	JkylTEJfWuHUIQn	55	664835	40345	1405	395	SEgumCHl1kZv8J	QSOEFINTyeeVLCJ
6	HQFAYwBpUd0zVw	XlTCpVxZzEFQn	JkylTEJfWuHUIQn	68	859335	34345	1685	665	DELlQmZrUwMzJok	lSPRTZ0wkyo0pFa
7	w3heDzLysfZCz	ZmVwDzCfWQn	JkylTEJfWuHUIQn	84	744435	51885	145	395	EtChp1l1k0p0p	ZJOKwvE0J200h
8	qYDpCIVh0b0yFvt	n0kHmF0Jz15Zas	JkylTEJfWuHUIQn	10	685245	94225	415	285	ZWw0rA85FayCku	LKO1IQfVVCzWen
9	dSfWng1kHk0m	xCA8key1Y0FFp1	JkylTEJfWuHUIQn	58	739385	37845	1805	385	SfGL30AMwC0pVp1	l1wPpFVLSaCEIX
10	WfDmWgZfYcLIE	noDZuSfPwMw	JkylTEJfWuHUIQn	64	745145	6845	475	415	WfDmWgZfYcLIE	WfDmWgZfYcLIE

Filter: Expenses Income Loss Staff

Choose condition:  <=  >=  =

Please enter a valid value:

Summary data

Units: 0  
Staff: 0  
Budget: 0  
Expenses: 0  
Income: 0  
Loss: 0

Return camera  
Export Reports  
Filter  
Search

Unit Data

Unit ID: 1  
Name: XnpJYVwksDQaoJ  
Head of Unit: WkRk0LuAv1a1z  
Head organization: 0  
Number of staff: 18  
Annual budget: 6485  
Expenses: 1923  
Income: 180  
Loss: 58  
Description: vpsNumFgMqJ0k  
Key Achievements: a80XkUd4kqRnng

Filter: Expenses Income Loss Staff

Choose condition:  <=  >=  =

Please enter a valid value:

Summary data

Units: 0  
Staff: 0  
Budget: 0  
Expenses: 0  
Income: 0  
Loss: 0

Return camera  
Export Reports  
Filter  
Search

Unit Data

Unit ID: 53  
Name: mktYryeotUdahr  
Head of Unit: lo03pVv0158m  
Head organization: XnpJYVwksDQaoJ  
Number of staff: 34  
Annual budget: 72988  
Expenses: 3486  
Income: 72  
Loss: 27  
Description: un1BeoHap0Dk3nA  
Key Achievements: @UUFV201kwa0P

Summary data

Units: 1  
Staff: 38  
Budget: 567365  
Expenses: 12125  
Income: 1245  
Loss: 585

Details

Return camera  
Export Reports  
Filter  
Search

Unit Data

Unit ID: 714  
Name: Mu0kkaadIcPFFAD  
Head of Unit: X8pFv0Zy1g11AL  
Head organization: EYgC3PFAZcFy  
Number of staff: 6  
Annual budget: 69845  
Expenses: 4978  
Income: 122  
Loss: 3  
Description: z80QFw01p0h3wF  
Key Achievements: WcprSF0qH1EYl

Summary data

Units: 21  
Staff: 1216  
Budget: 1689075  
Expenses: 130945  
Income: 23615  
Loss: 1205

Details

Return camera  
Export Reports  
Filter  
Search

## **FEATURES & SPECIFICATIONS**

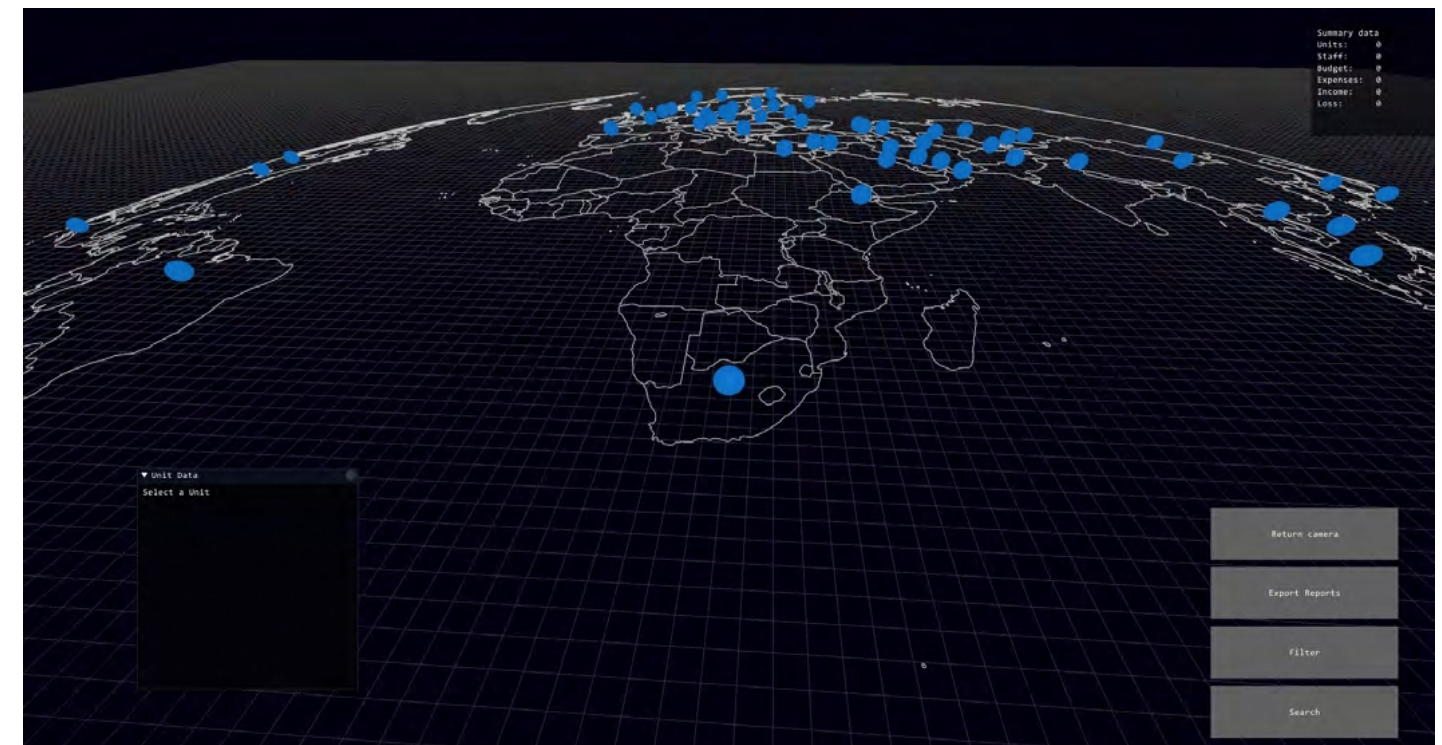
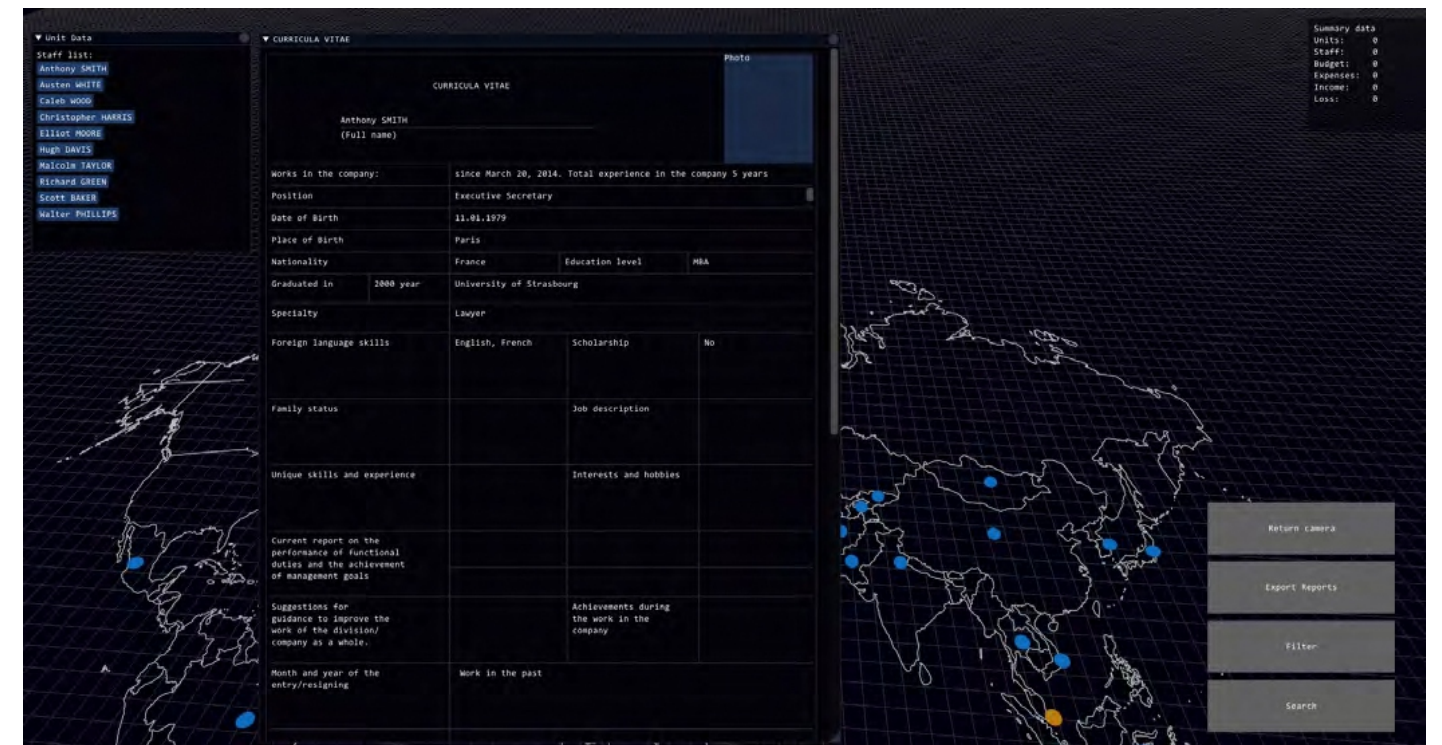
**A completely new management tool that will provide “one-click” access to data on leaders, budgets, staff, income or loss, revenue, list of fixed assets, missions and the performance of any of the hundreds or thousands of branches and structural units of users’ organization.**

**Users can instantly summarize data for any group of units, select and display units by any of the following criteria:**

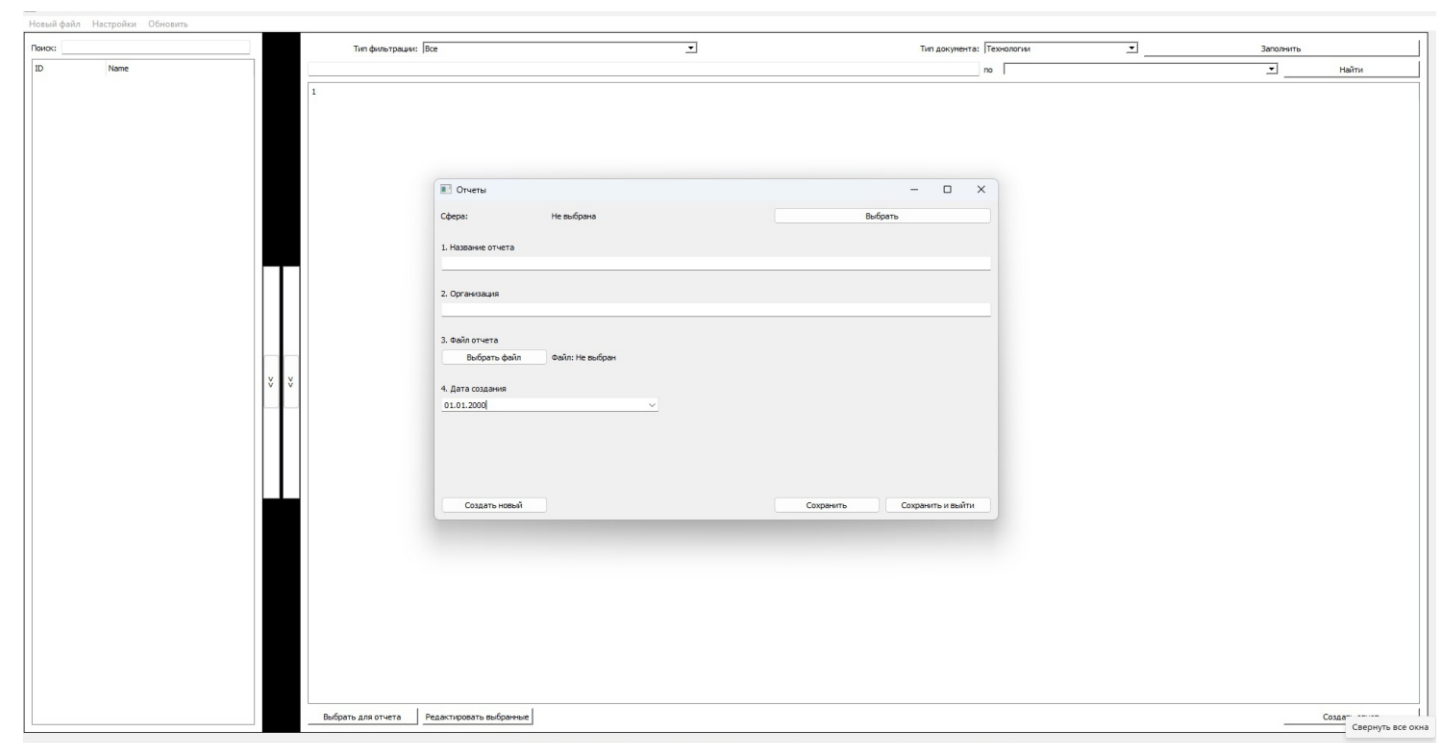
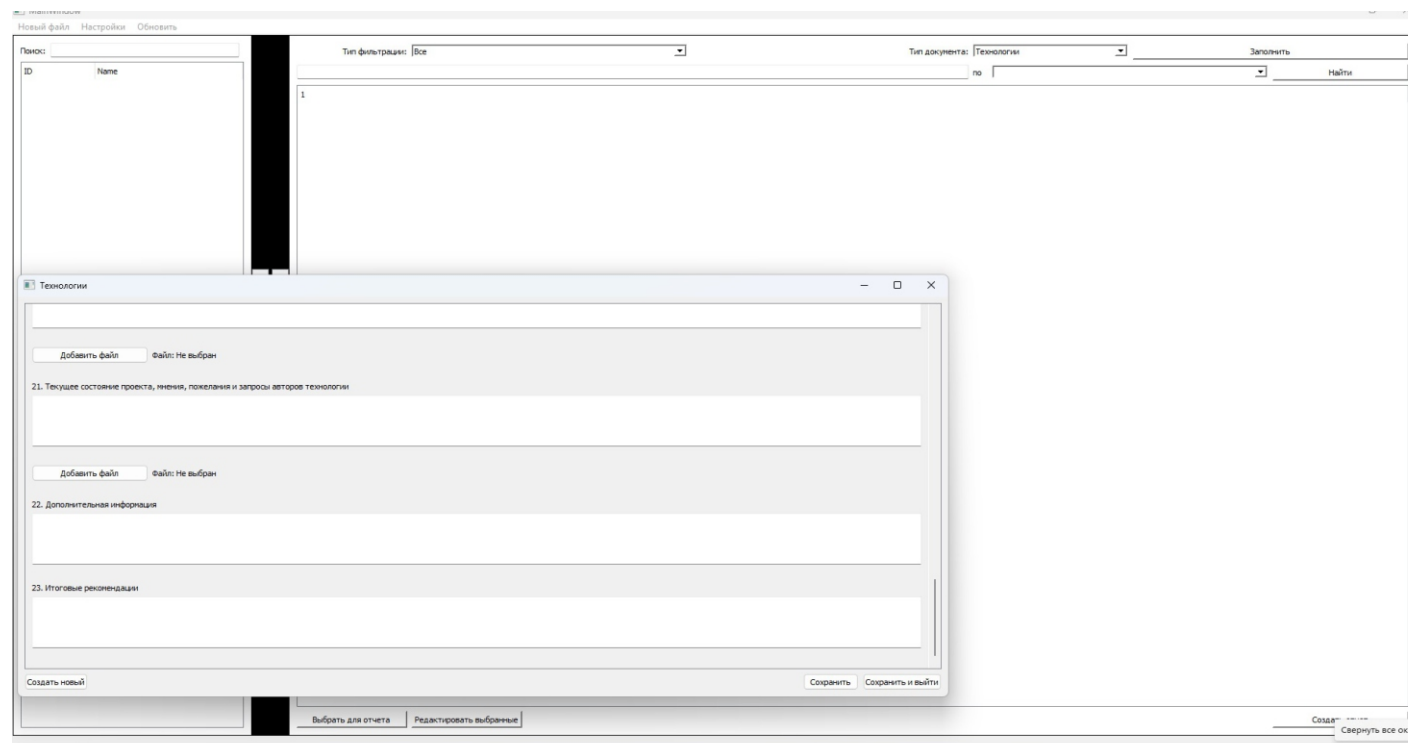
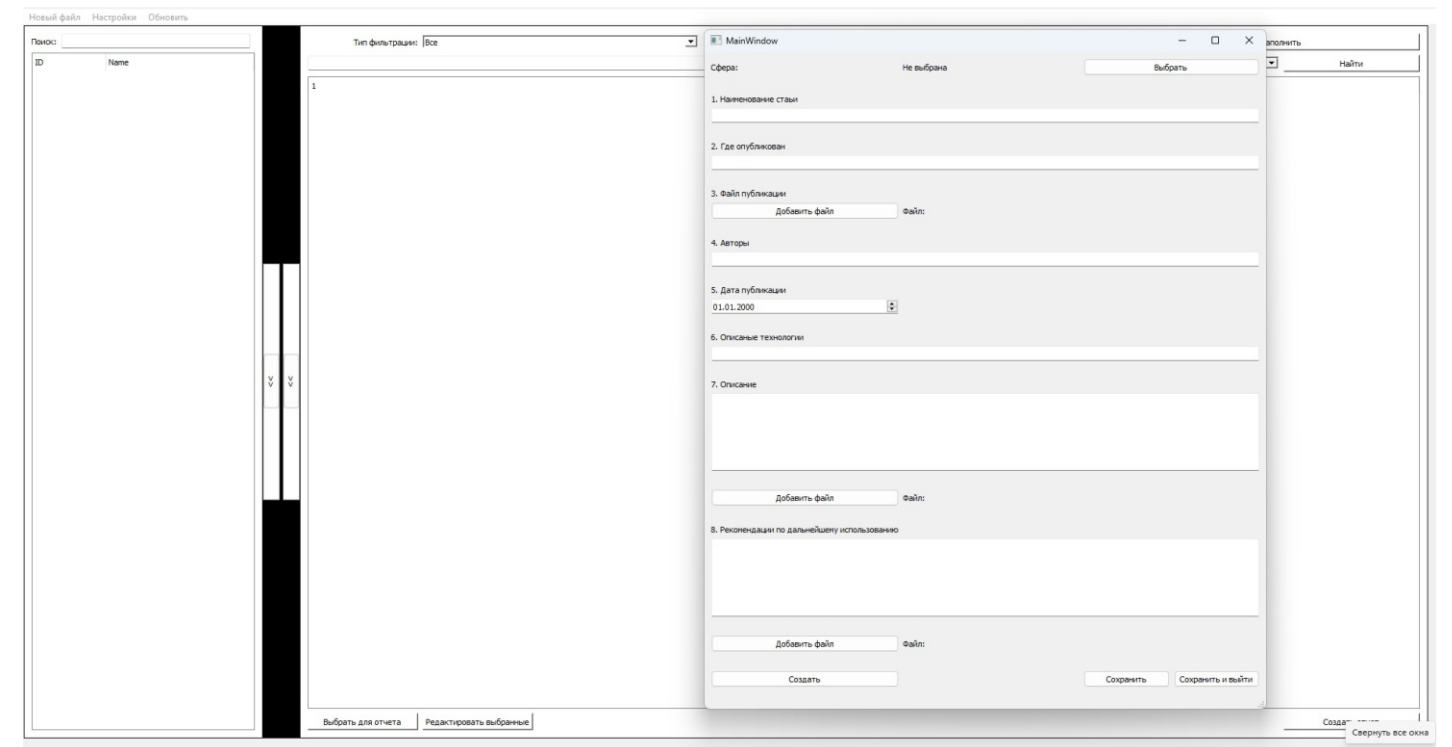
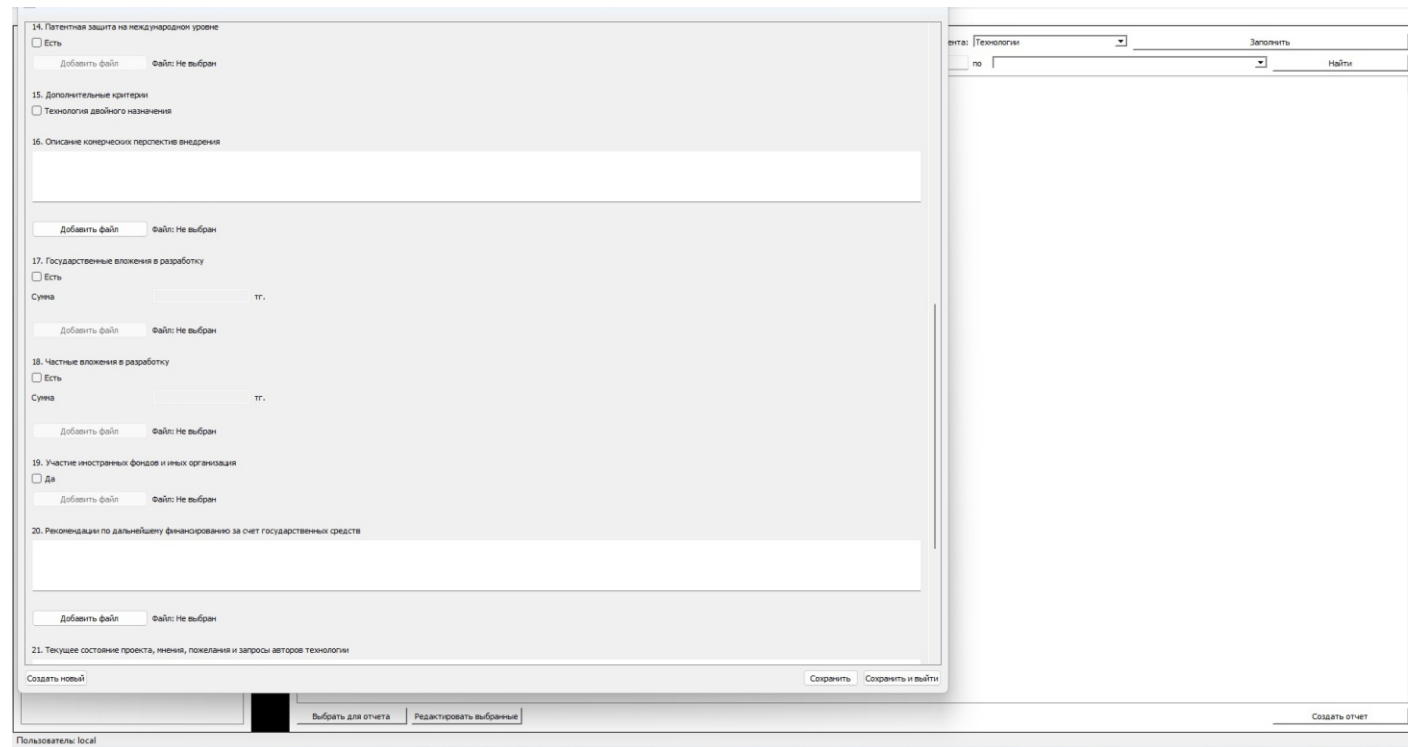
- the budget above or below the desired indicator**
- the number of staff**
- income or loss**
- activities**

**The technology allows for an instant formation of consolidated reports, which saves hundreds of hours of labor collecting summary data.**

# VERSION 2.0 - HR



# VERSION 3.0 - SCIENCE



Nationwide Database of Scientific Discoveries

# GOALS

- Significant improvement in management efficiency, saving financial and human resources of the organization, ensuring transparency, effective feedback
- Formation of national/general corporate databases on areas of responsibility, tasks, results of work of each structural unit
- Acceleration of the speed of making management decisions, thereby improving the quality and reliability of service information
- Reducing the number of office documents and correspondence

# SECTOR



Private	Public	International
<b>Corporations, holdings</b>	<b>Government Entities</b>	<b>Transnational companies</b>
<b>Banks and financial institutions</b>	<b>National companies</b>	<b>International Organizations</b>
<b>Trading networks</b>	<b>Joint ventures</b>	<b>Consulting companies</b>



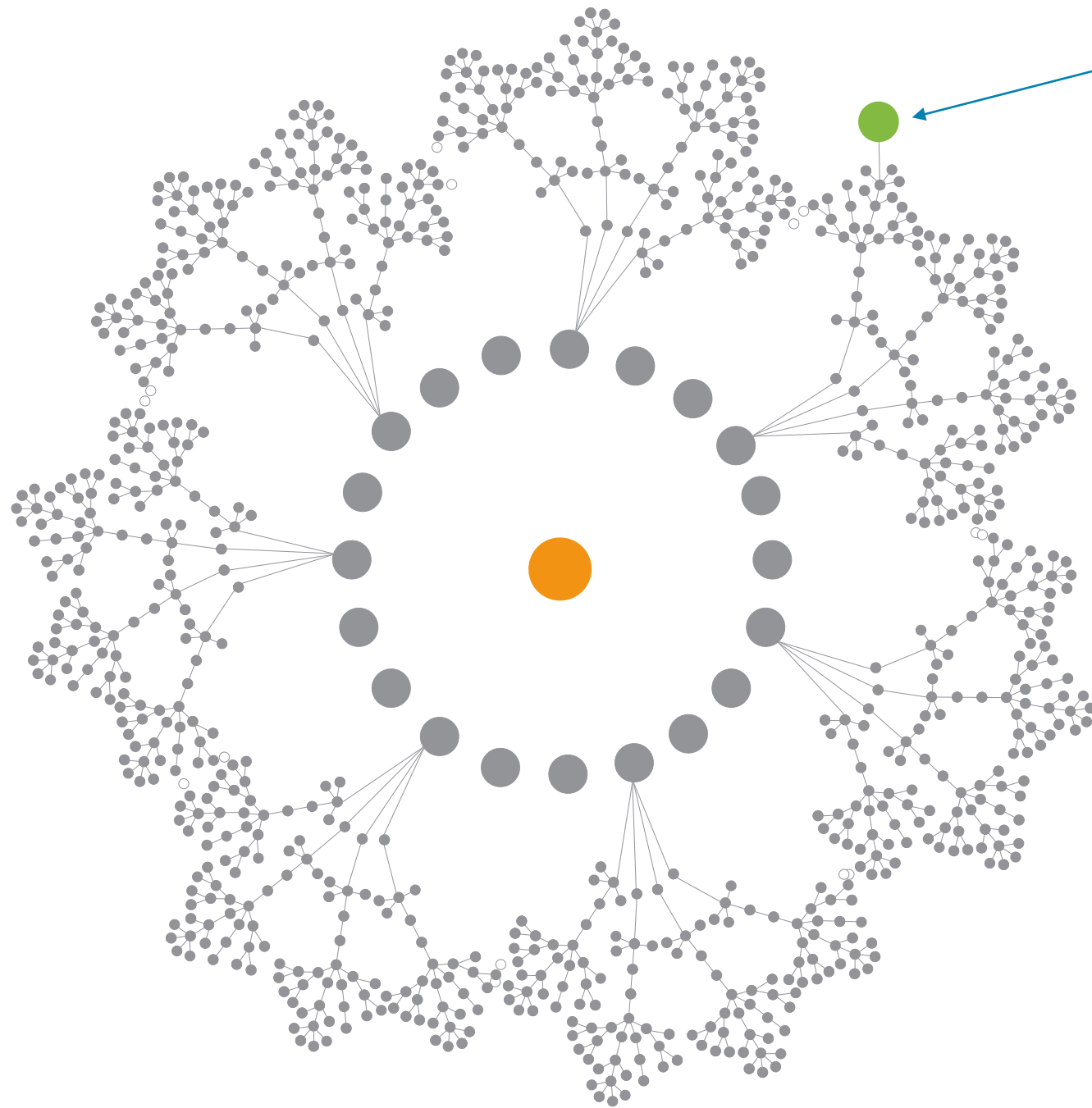


Art by Alexandra Kalacheva

## Creation of Situational Information-Analytic Centers

# **AREAS OF APPLICATION**

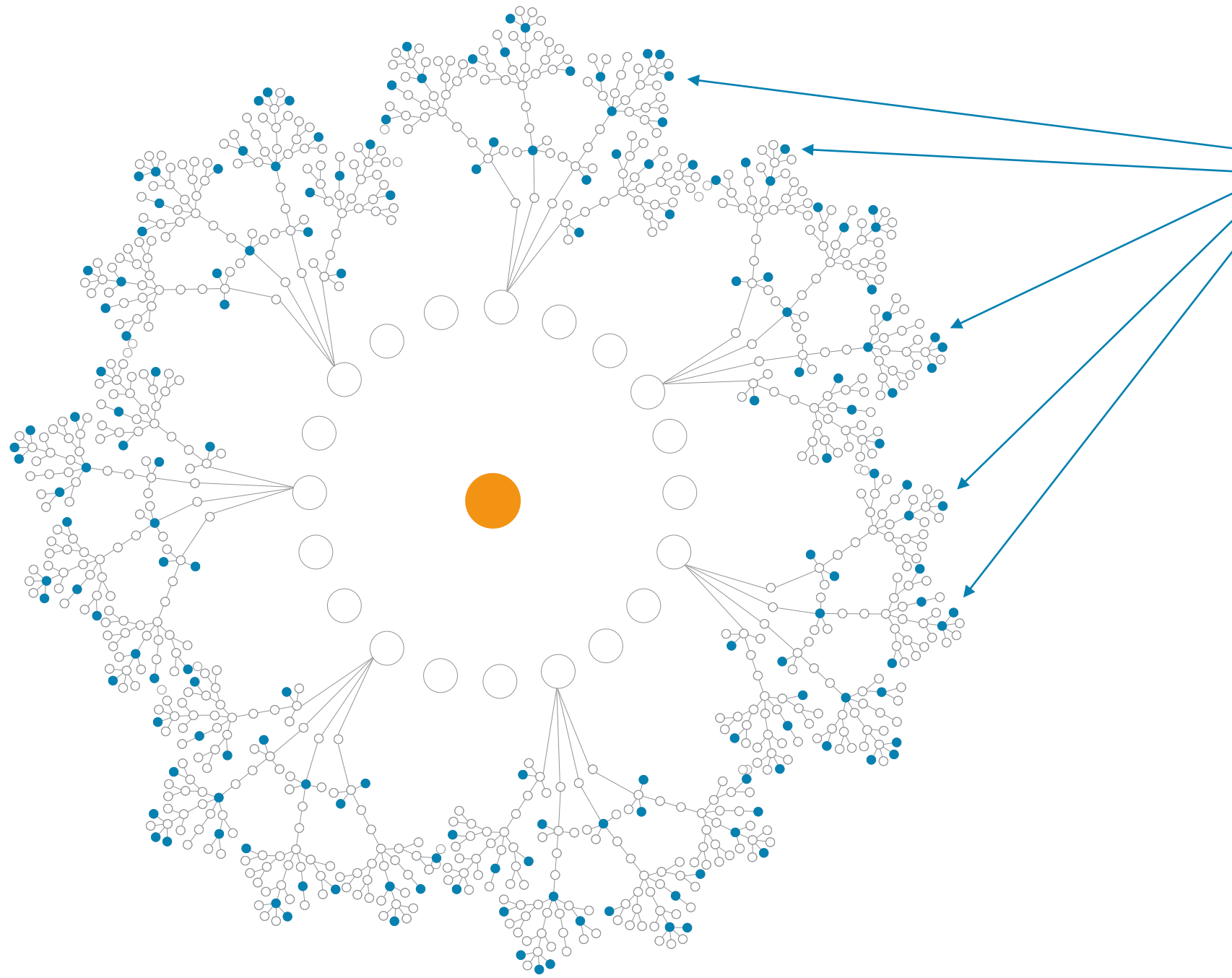
# MONITORING OF RESOURCES AND EFFECTIVENESS OF DIVISIONS



Division name	
Name of the higher division	
Head of Devision	
Staffing	
Purpose	
Budget	
Assets	
Income/Loss	
Revenue	
Expenses	
Payroll Fund	
Performance Indicators	
Activity Reports	

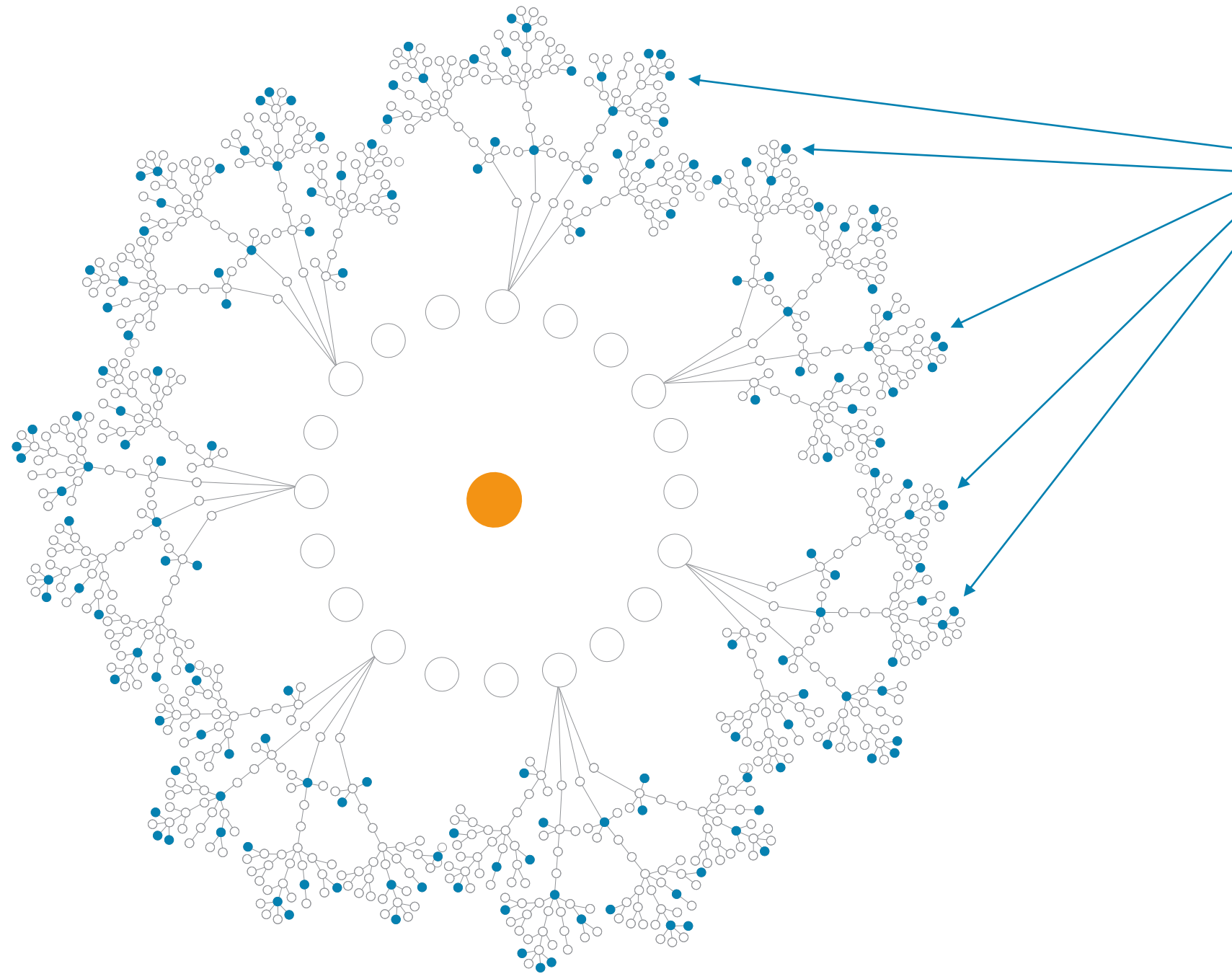
By analyzing this data, it is possible to match the available resources with tasks of each subdivision along with real outcomes of its operating activities

# HUMAN RESOURCES POLICY



**The management can instantly get data about any employee of the organization**

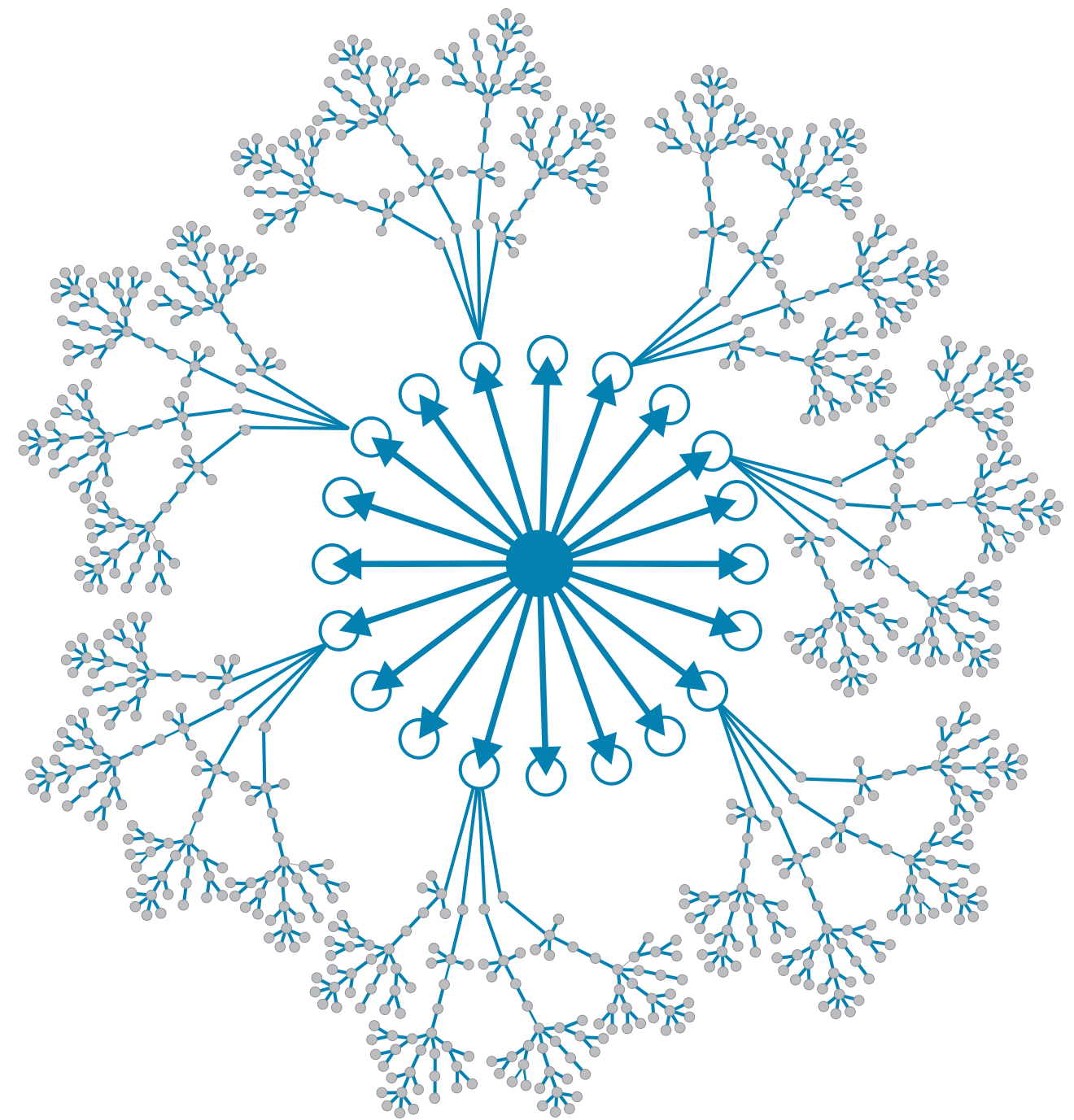
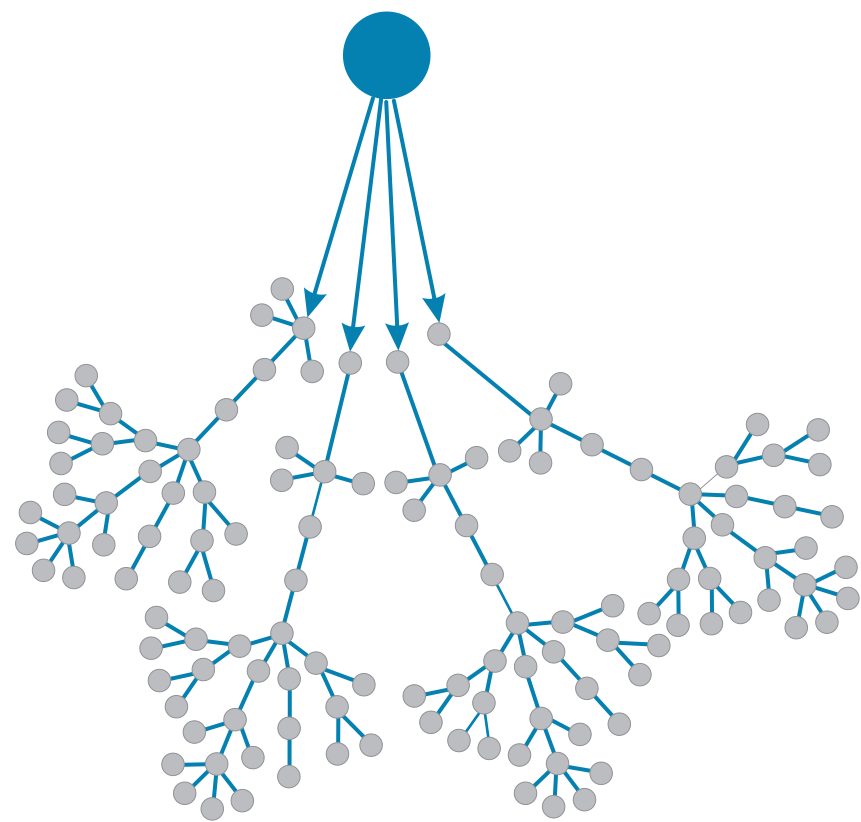
# IDENTIFYING AND MONITORING FOR THE IMPLEMENTATION OF STRATEGIC GOALS



**An analysis of different goals. For instance, the current state and level of development of innovations in various fields - medicine, agricultural and industrial sectors, information technology and education within Government entities**

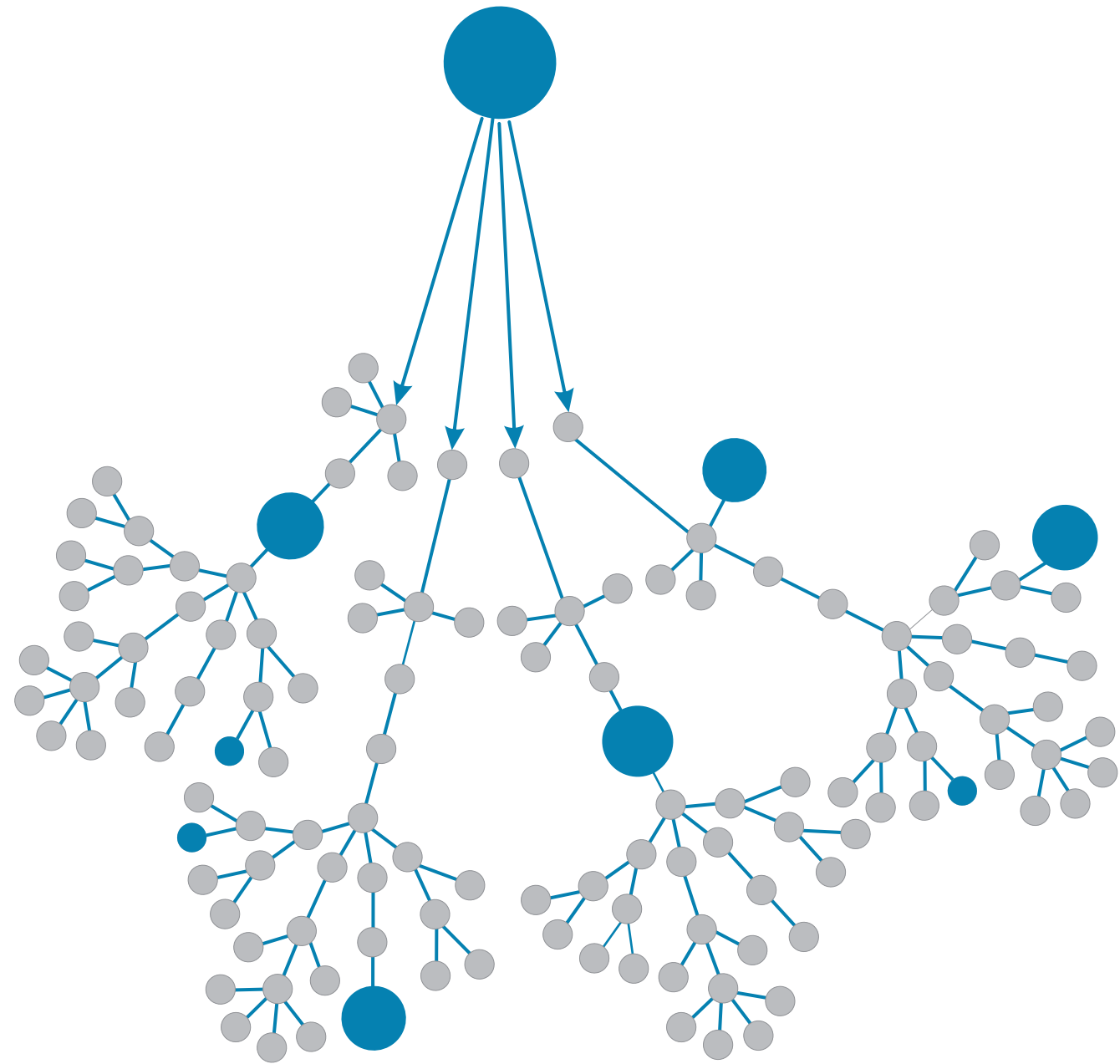
# DISTRIBUTION OF FINANCIAL RESOURCES

At each level/stage one can find out how a division manages its administrative expenses, awards and bonuses, and how much resources it transfers to "downstream" organizations



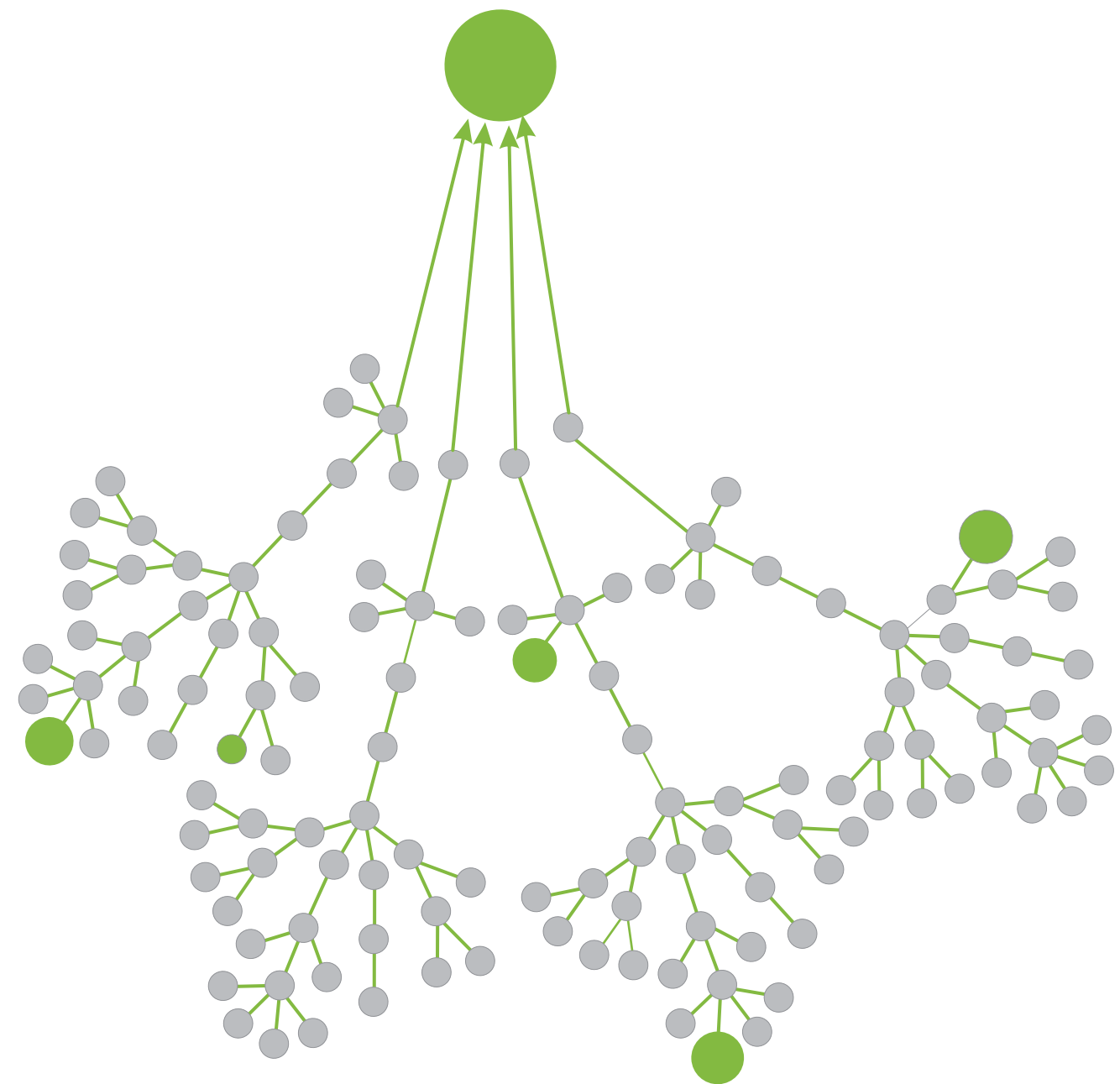
# FINANCIAL ANALYSIS

## Monitoring of major expenses



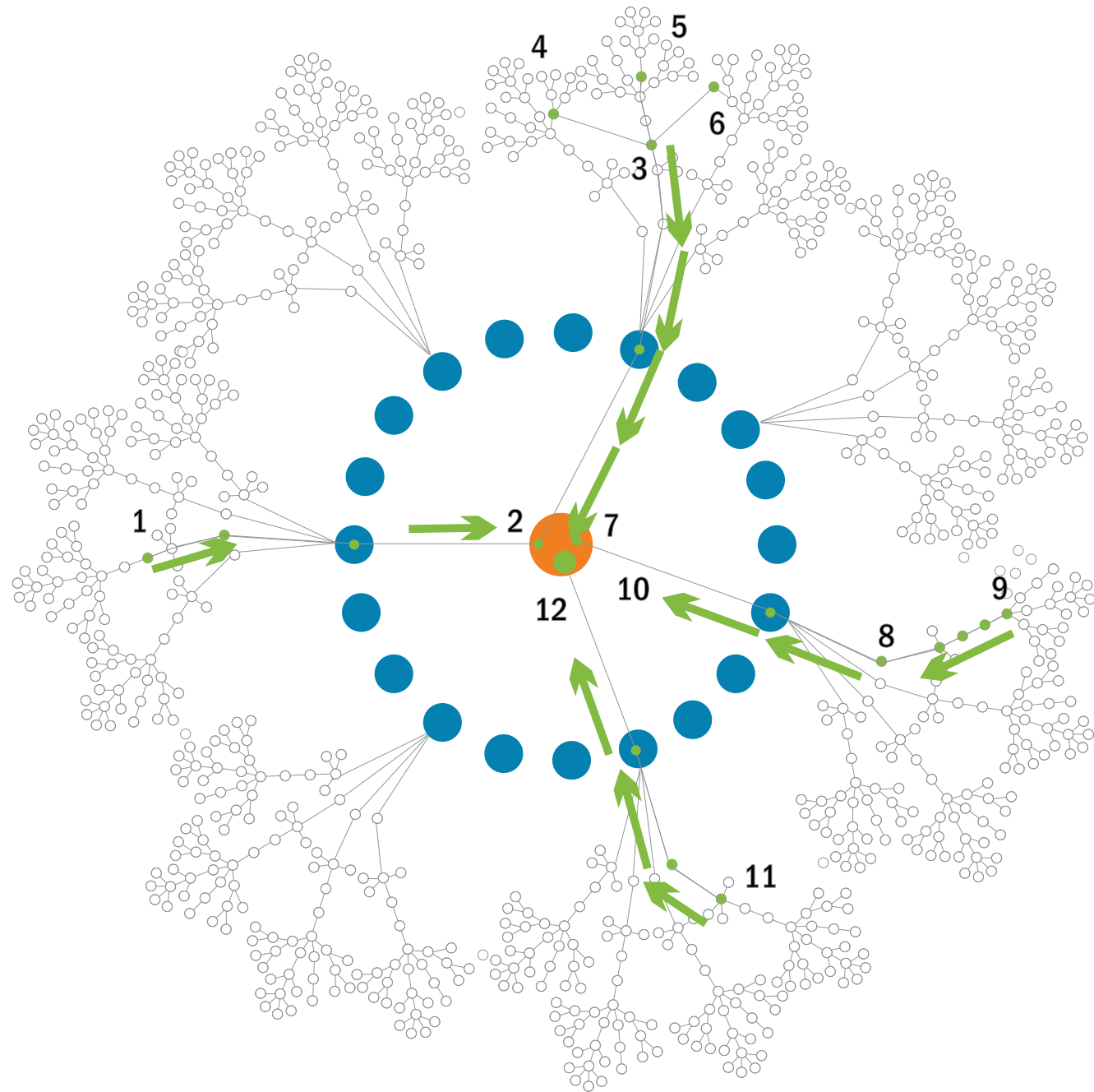
# FINANCIAL ANALYSIS

A possibility to trace the reverse process - collecting funds from divisions that generate income to the general budget, identify those who bring the most or least income





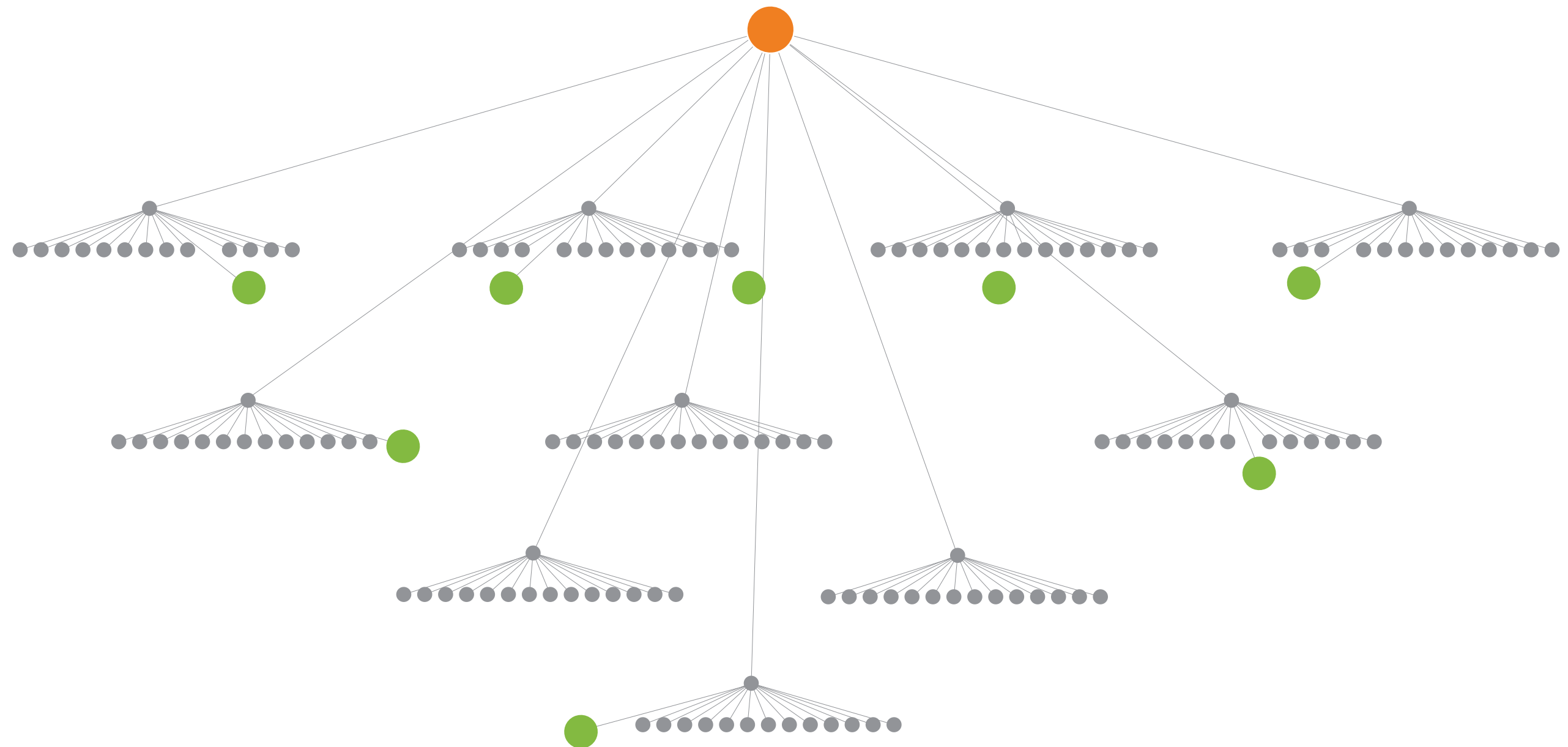
# STATUS OF PROJECTS' IMPLEMENTATION WITHIN AN ORGANIZATION



An evaluation and pre-planning of large projects, studying the implementation progress, deadlines and expected results

# MANAGEMENT WITHIN TRADING COMPANIES WITH EXTENSIVE BRANCH NETWORKS

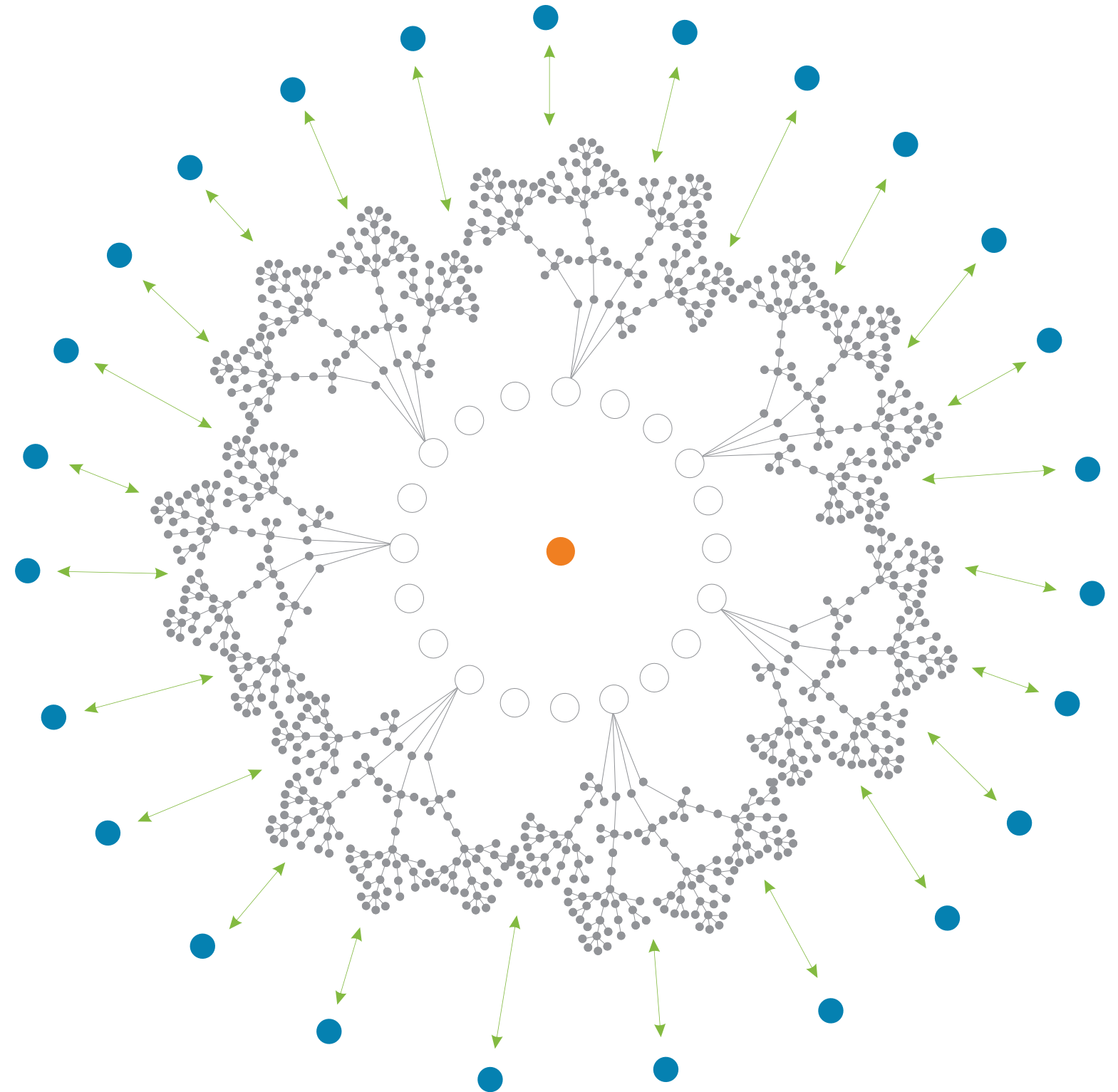
Identification of the most successful units. Analysis of success factors to implement experience in the entire network



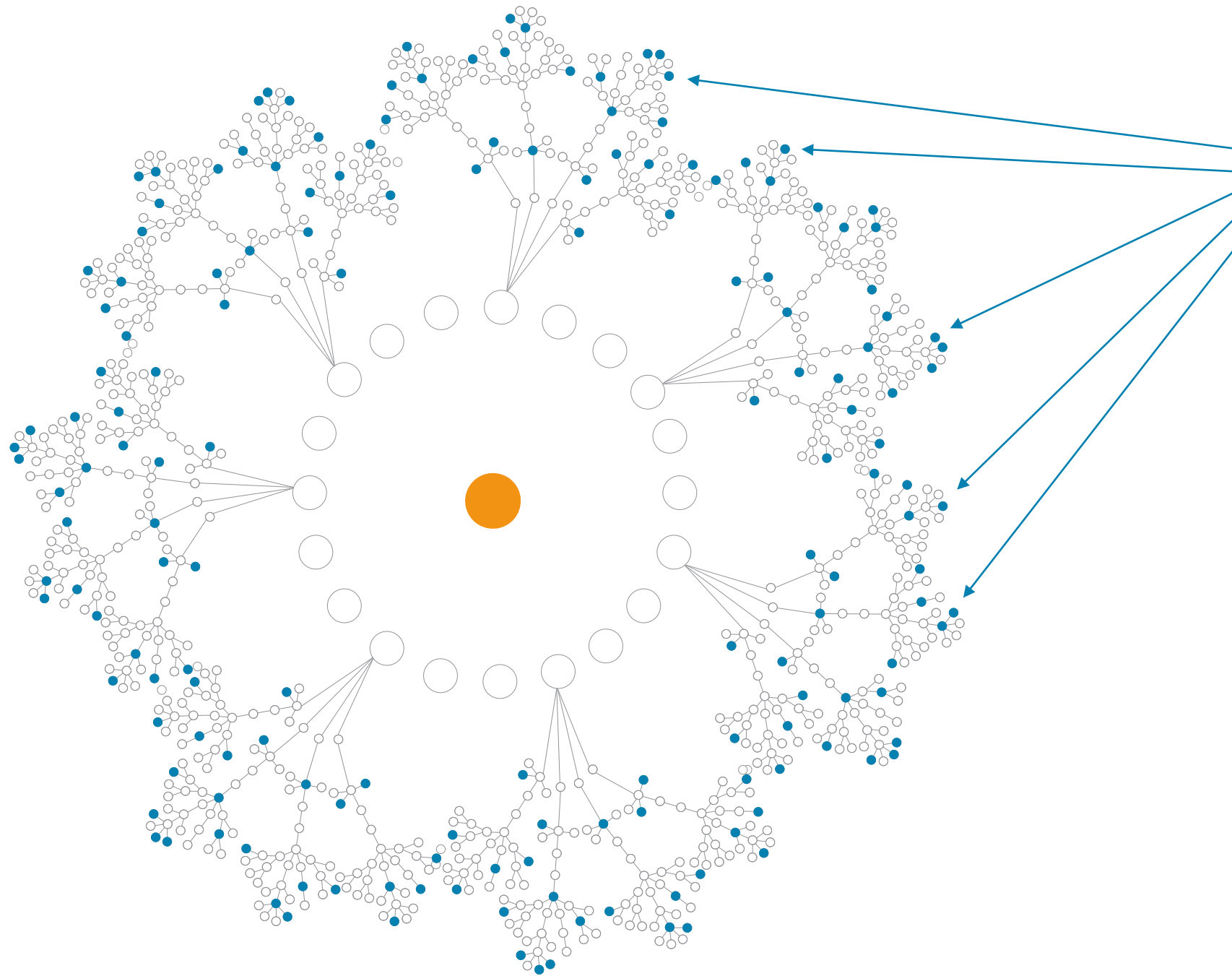
# INTERACTION WITH EXTERNAL PARTNERS

## Database of clients and suppliers

Direct access to data on agreements, responsible executors, contract amounts, existing creditors and debtors etc.



# IMPLEMENTATION OF THE PRINCIPLES OF MERITOCRACY. ANTI-CORRUPTION FIGHT

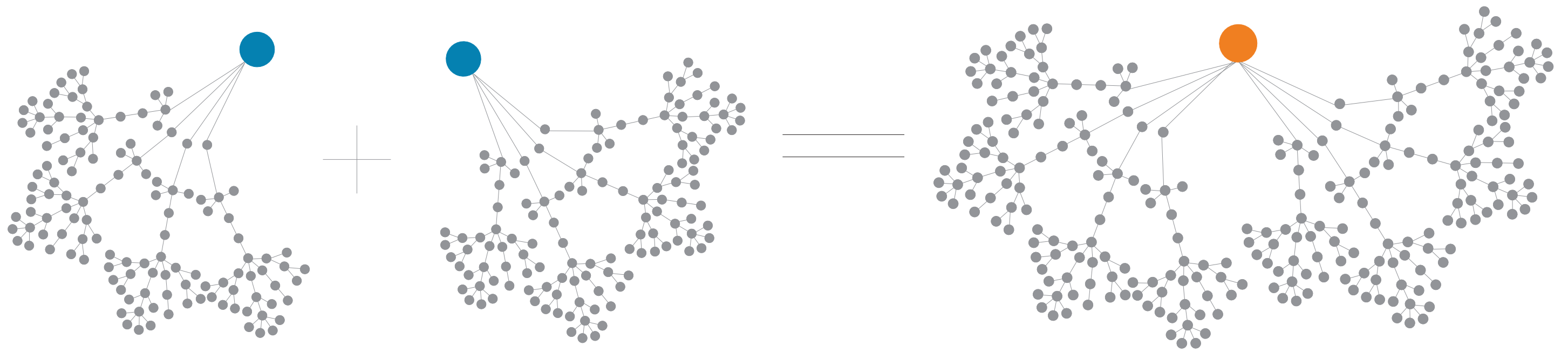


**Mechanisms for preventing corruption**

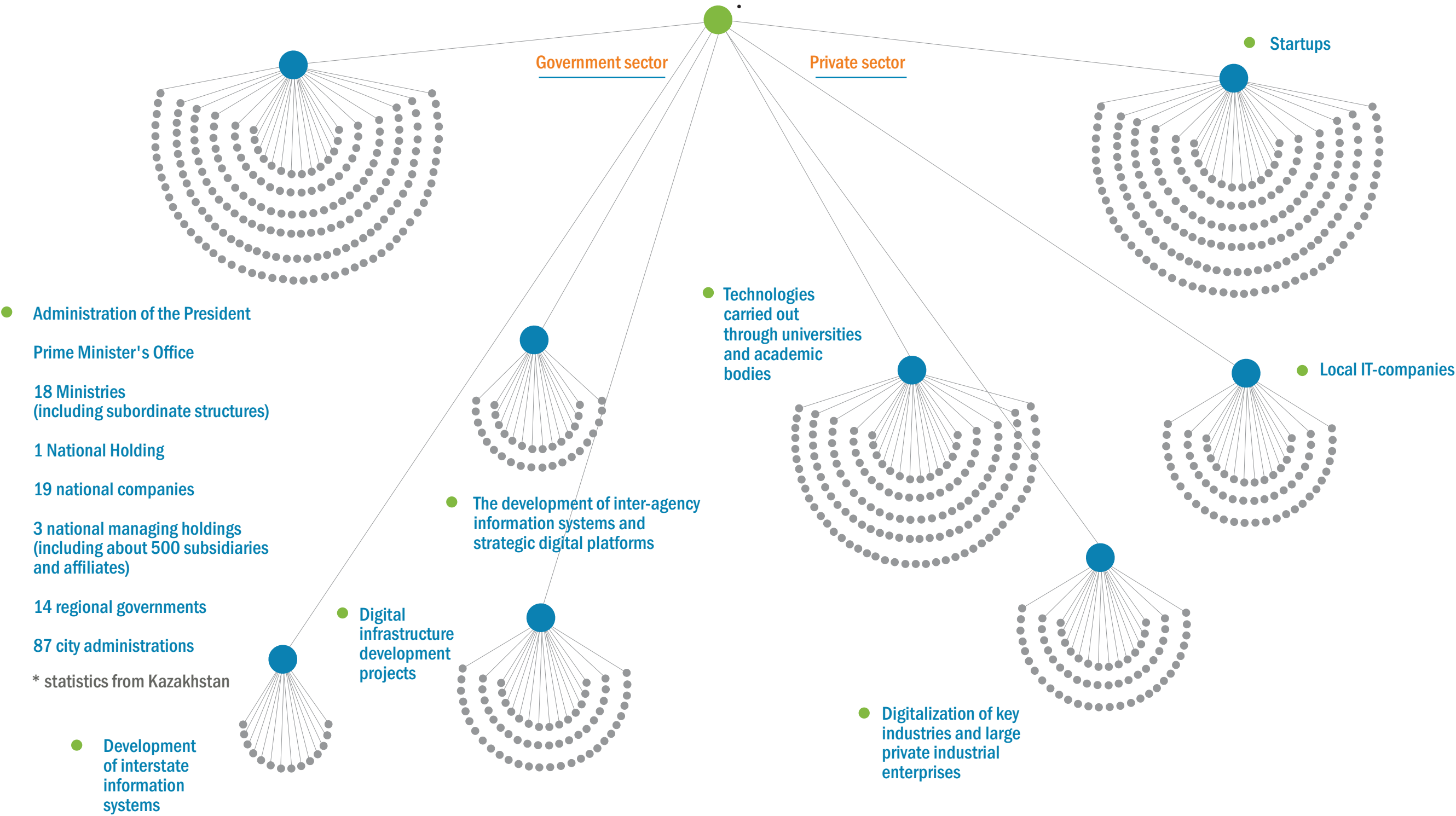
**Identification of managers responsible for making the most complex and integrated decisions on the development of strategic directions, elaboration of development programs and distribution of key financial resources**

# SIMULATION AND MODERNIZATION

Identifying duplicate functions, excessive number of subordinate organizations - “daughters”, “granddaughters”, “great-granddaughters”, etc.), as well as multi-level boards of directors at various levels, non-core assets and moving assets to the "invisible" strata. Modeling of the structure, including a new variants of functional load, labor, material and financial resources for various divisions

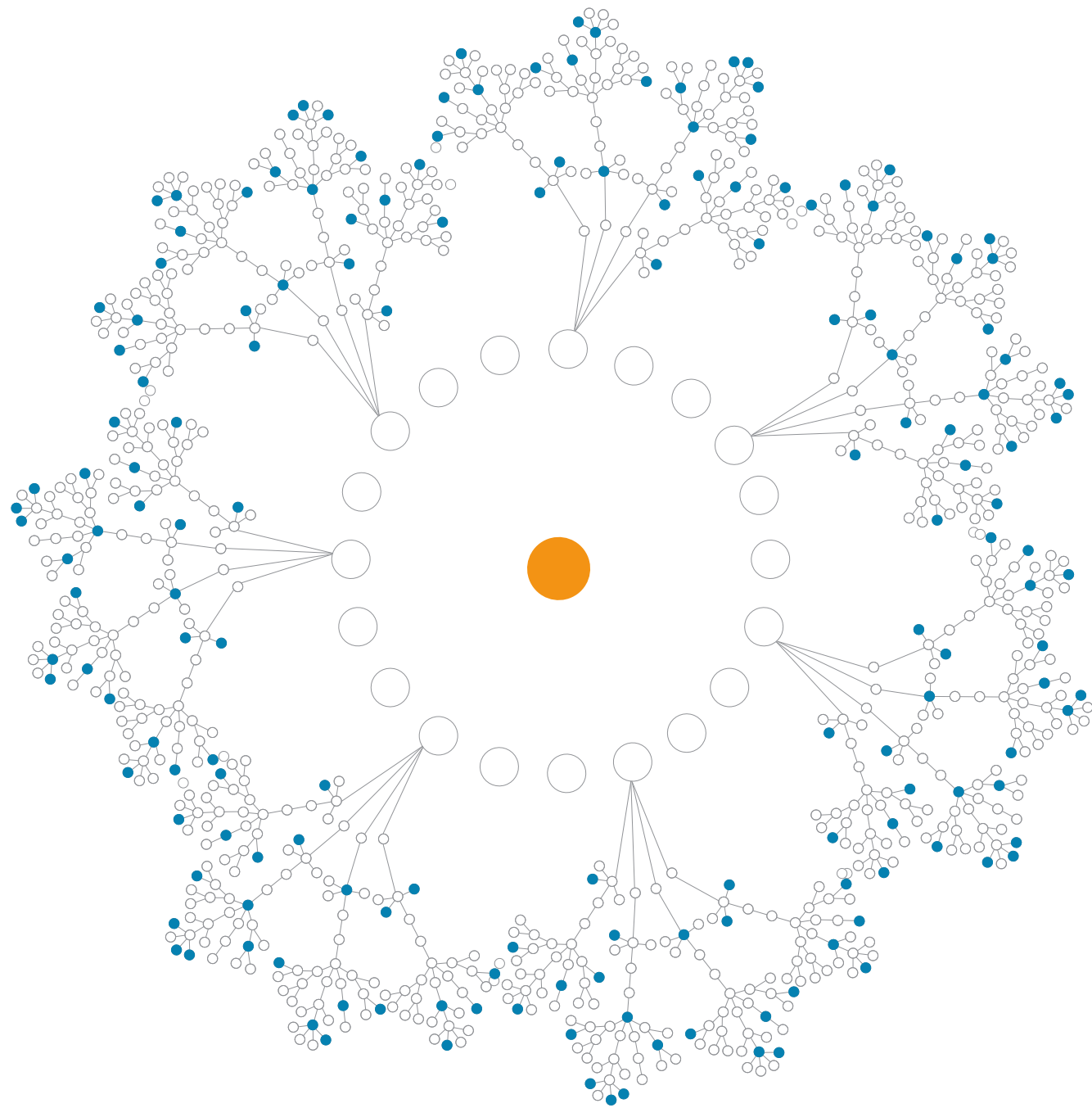


# NEW GENERATION OF INDUSTRY DEVELOPMENT PROGRAMS



Sample of the National Digital industry development map. Creation of Interactive Digital Maps for industries, where each major project or organization is displayed.

# INFORMATION POLICY AND PROPAGANDA

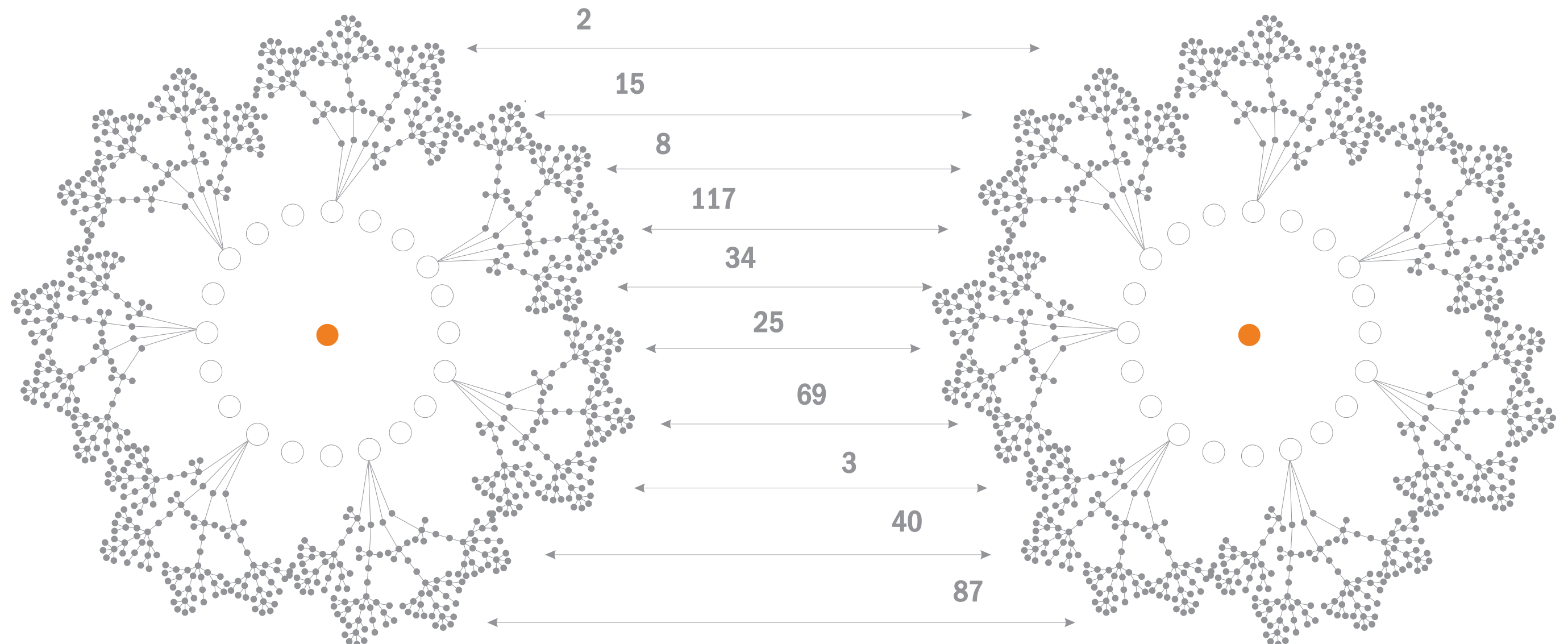


**Identifying support tools for citizens.  
Description of the State achievements  
in various fields. This is articularly  
important for the public sector**

# INTERNATIONAL COOPERATION

Interaction with Governments of foreign States.

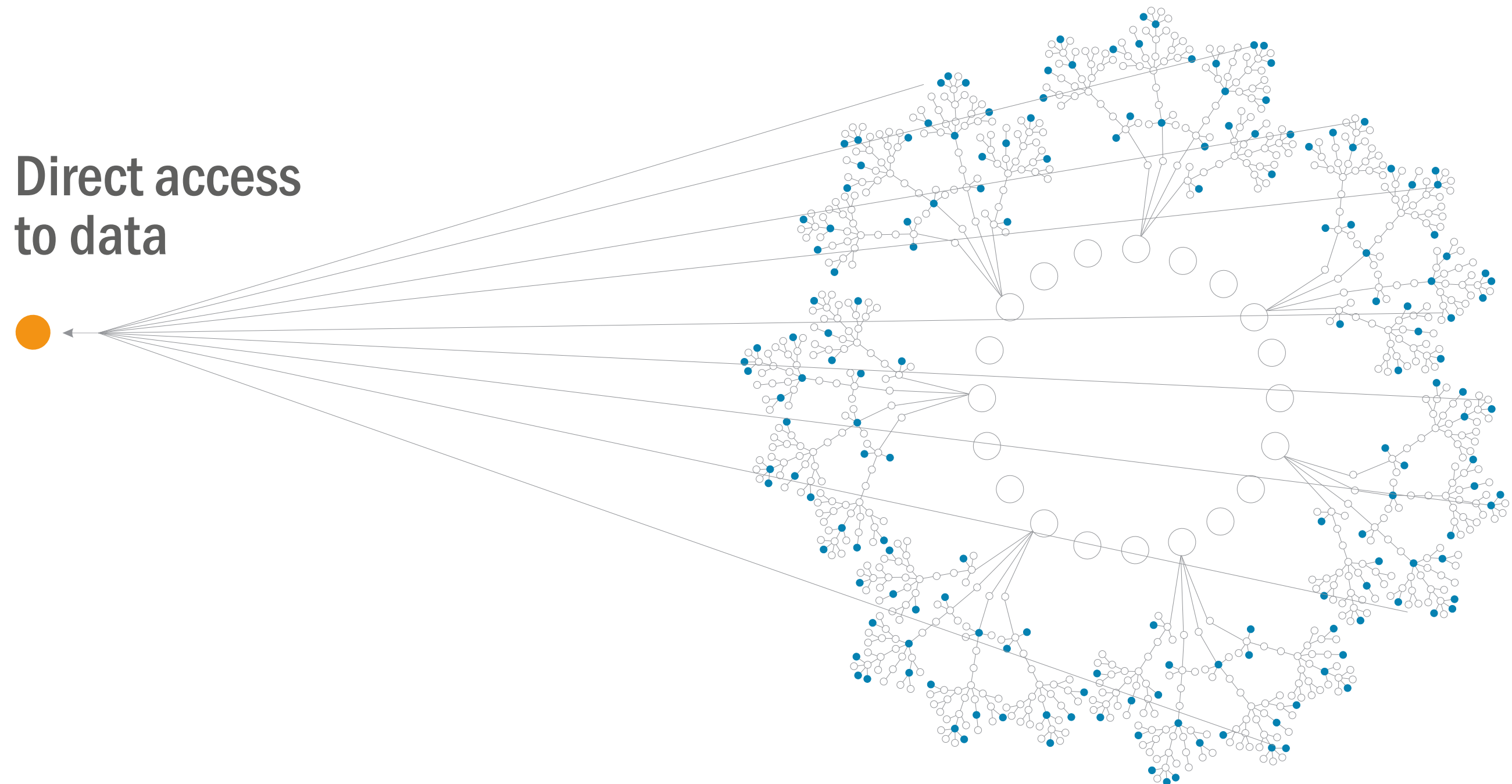
Increasing various indicators for each area enhances integration processes between States - economy, culture, military and technological cooperation, etc. Database of Agreements and Representatives from both sides





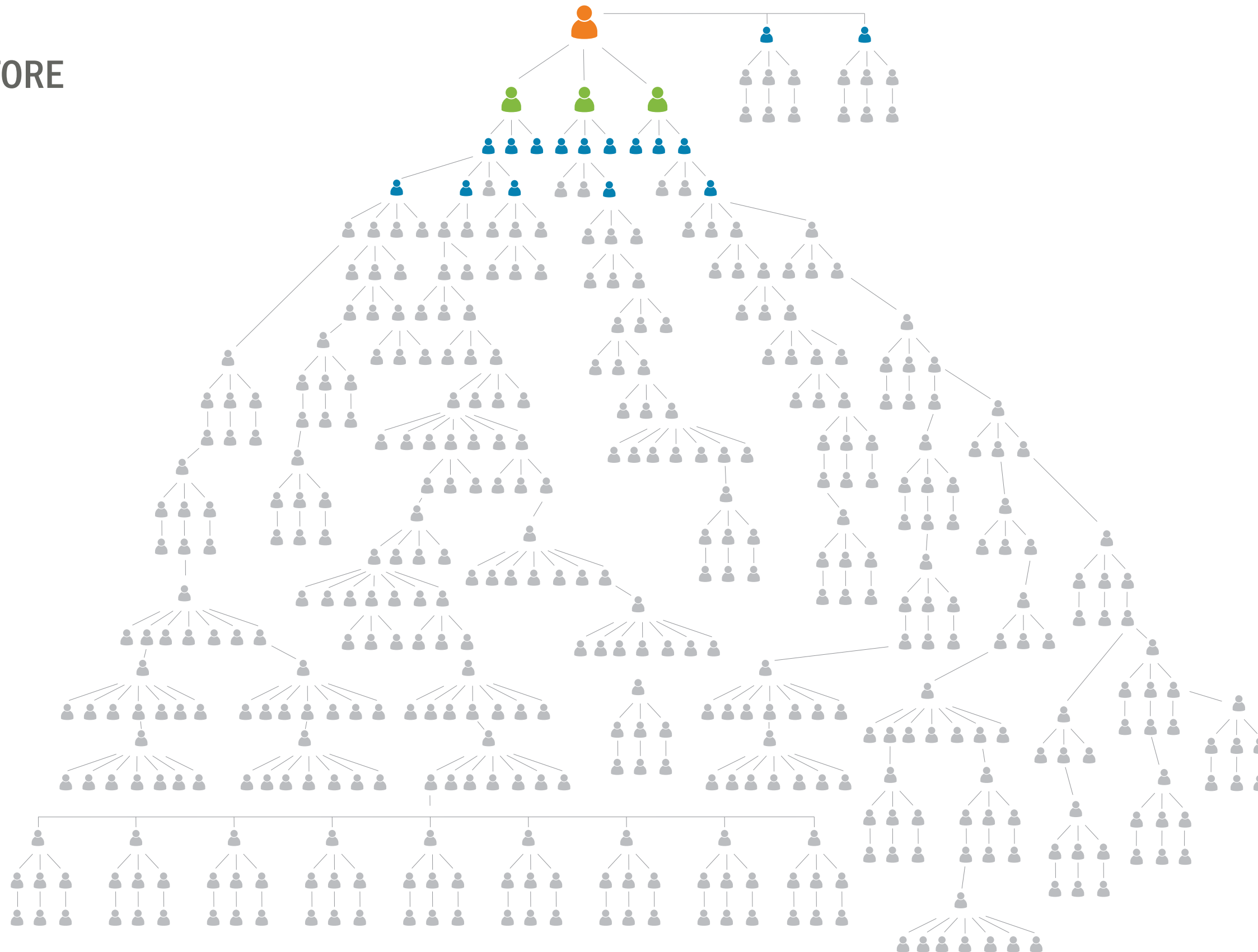
# PRINCIPLE OF INFORMATION COLLECTION

The new methodological approach facilitates the process of collecting reports and also avoids the “distortion” of information when data passes through too many hands



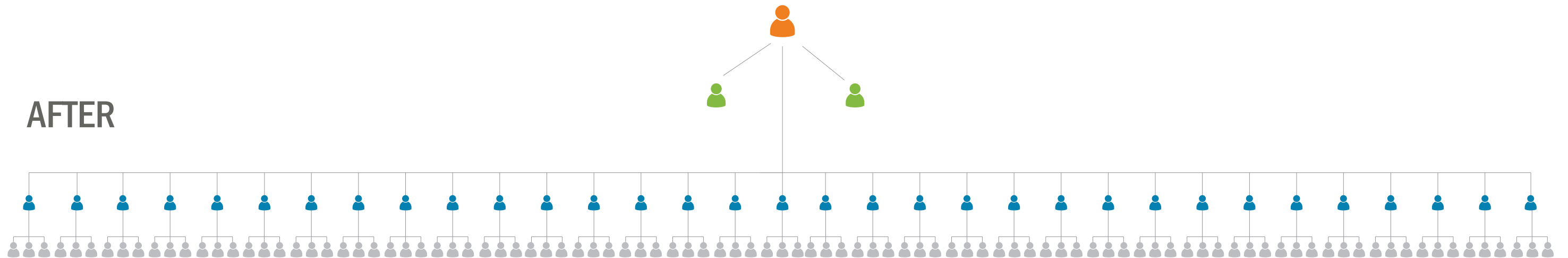
# REORGANISATION

BEFORE



# REORGANISATION

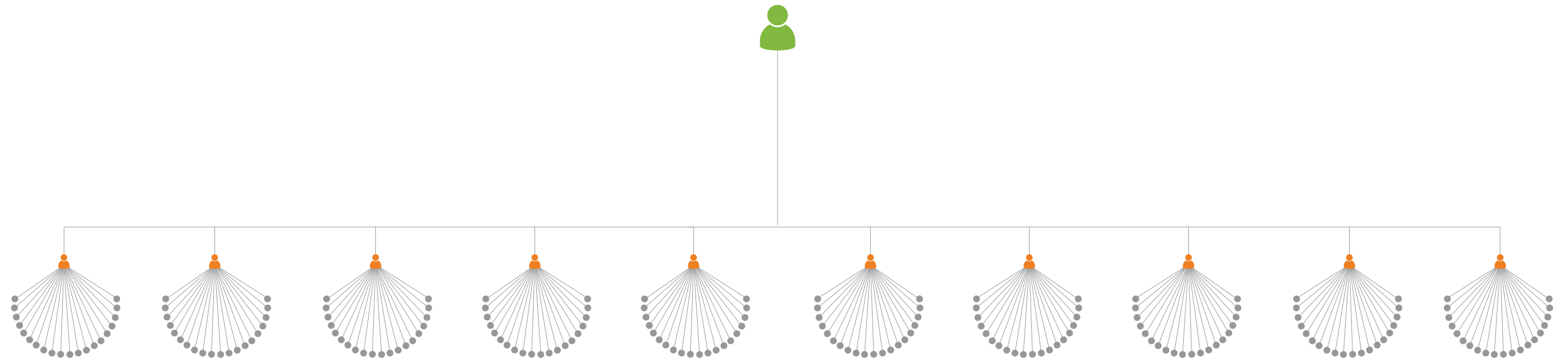
AFTER



- **Complete overhaul of the organization's structure, including the abolition of a number of management positions**
- **Squashing of the structure**
- **Reducing of management levels**
- **Multiple increasing of employees that one person will be able to manage**
- **Tenfold reduction of the document flow and circulating reporting information**
- **Significant improvement in management efficiency, saving financial and human resources of the organization, ensuring transparency, effective feedback**
- **Acceleration of the speed of making management decisions, thereby improving the quality and reliability of service information**
- **Increasing the responsibility of lower tiers**

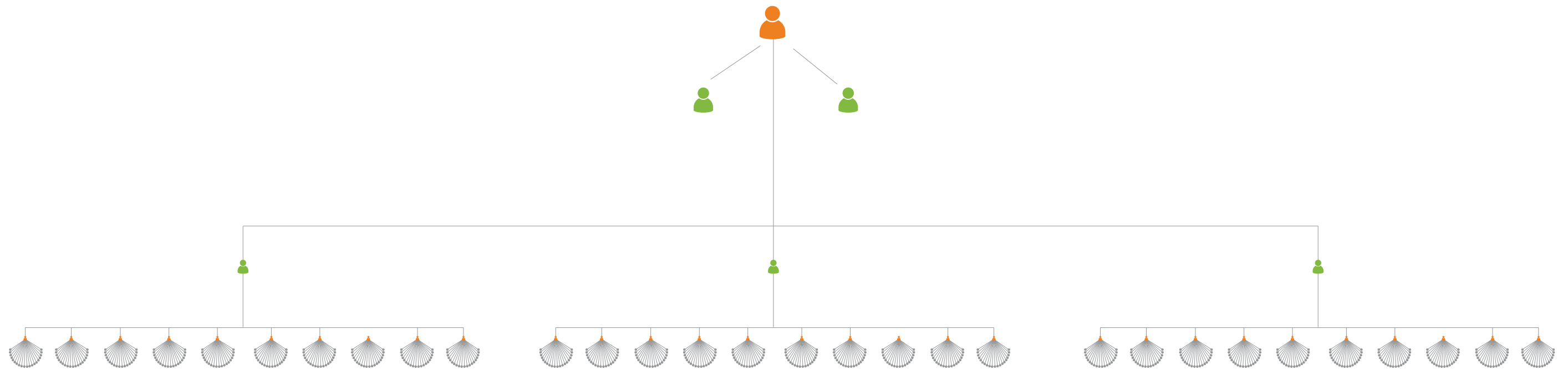
# LEADERS OF THE NEW GENERATION

Creation of management systems for specific sectors based on new design and principles of organization



# LEADERS OF THE NEW GENERATION

Creation of management systems for specific sectors based on new design and principles of organization



**THANK YOU FOR YOUR ATTENTION!**