ICT CLUSTER VARNA

BSMEPA
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Frontier AI and AGI

AI Bubble or a New Entity — AGI?

6–12 months

Doubling of the capabilities for tasks agents perform autonomously

2027 → the 2040s

A new normal — deep uncertainty

Scenario 1: Inflated Expectations

- Capital is moving faster than proven returns.

Compute, energy, and chips are becoming new geopolitical resources.

Deployment in real business is slower than market ambition.

Scenario 2: Breakthrough Toward AGI

- From Reinforcement Learning to Recursive Learning

Agents begin to set their own goals or rewrite themselves
AGI may emerge not as a single model, but as an ecosystem of connected AIs.

Both may be true: a technological breakthrough wrapped in market euphoria.

Complexity and Dependence

Systems Become a Network

Complexity

- Finance and business are becoming embedded in a network of models and agents...

When agents react synchronously or asynchronously...

The more powerful the systems become, the harder it is to grasp their full logic.

Dependence and Lag

- We delegate rights, governance, and decisions to structures we do not fully understand.

Technology is accelerating faster than education, regulation, and organizations.
Catching up means restoring the human being as the author of goals, not merely the consumer of outputs.

The task is not to surpass machines, but to preserve our ability to direct, constrain, and verify them.

From Language to Action

AI Agents as a New Type of AI

Language Models

- Persuasiveness vs. truth.

They compress knowledge into a convenient format, but can erase nuance.

They carry the biases of their data and the invisible intentions of their creators.

The most powerful models concentrate a new kind of power.

AI Agents

- They plan, execute, write code, make payments, send messages, and coordinate.

Potential mistakes will now have an effect on reality.

Interaction between agents may generate behavior no one designed.

The new frontier of control: limited permissions, traceability, human approval, and an architecture of distrust.

Uncertainty and Mental Health

The Psyche Senses the Threshold

52%
of Americans are more concerned than excited about AI; in 2021 — 37% (Pew, 2026)

55%
of young people (18–29) are more concerned than excited; in 2021 — 31% (Pew)

22%
of workers in 36 countries are fully confident their job is secure (ADP, 2026)

What the Data Show

- Anxiety goes beyond fear of a new tool; it is a sense that the human role itself is changing in the world, systems, and relationships.

Young people and early-career workers face a shift in how expertise is acquired.

Expected risks are stronger than the economic losses already measured.

What Helps

- Clear boundaries from employers and governments: what will be automated and where the human factor belongs.

Training as a right, not just a call to “adapt.”
Mental resilience, information filtering, and a sense of human significance.

Sources: Pew Research Center (June 2026); ADP Research, “Today at Work 2026.”

Gen Z and the Loss of Opportunity

AI Replacement

CONNEXUS

Entry-level tasks: → The tasks of junior experts are automated first → Less learning of the profession → Fewer future human specialists

–19%

employment of 22–25-year-olds in the occupations most AI-compatible compared with others (Stanford, Aug. 2026)

If young people do not pass through the “slow” training tasks, they lose professional progression, sensitivity, and professional intuition.

Experienced employees are more likely to benefit from AI. A new type of inequality

Source: Stanford Digital Economy Lab, “Canaries in the Coal Mine” (revision, August 12, 2026).

How Do We Master AI?

Building Cognitive Immunity Instead of Dependence

CONNEXUS

Correlation: greater trust in AI means less effort in critical thinking

Think First Yourself

Formulate a hypothesis before asking for an answer.

Verify

Treat AI as a draft, not a final result.

Train Without AI

Preserve your thinking through regular independent work.

The Decision Is Yours

Delegate execution, but do not replace meaning and responsibility.

An Opponent, Not a Pleasing Echo

Ask for counterarguments, not only confirmation.

Keep Your Inner Compass

AI should strengthen confidence, not replace it.

Six Fields of Transformation

Added Value and the Cost of Delegation

Business

Value: process management, forecasts, customer decisions

Risk: a more complex structure and inability to manage without AI systems

Finance

Value: risk assessment, fraud, scenarios, liquidity

Risk: capture of markets

Medicine

Value: diagnostics, drugs, prevention

Risk: serious errors without clear responsibility and accountability

Education

Value: a personal tutor/mentor for everyone

Risk: cognitive passivity and closure

Agriculture

Value: yields, water, fertilizers, reducing the effects of climate change

Risk: inaccessibility for small producers

Industry

Value: digital twins and quality

Risk: cyber-dependence

After the Human Internet…

53%
of web traffic in 2025 is automated

40%
of all traffic is malicious bots; 13% — legitimate automation

47%
the human factor remains

What Is Changing

- AI answers often replace the link to the source.

Synthetic content blurs trust and authenticity. Metrics increasingly reflect real human interest less accurately.

A Realistic Reading

- The Internet is transforming — changing its purpose.

From an environment for human attention, it is becoming infrastructure for machine action. Humans are becoming an ever smaller part of traffic.

Source: Thales/Imperva, Bad Bot Report 2026 (2025 data).

Online Commerce and Business

When the Agent Buys

What Is Changing

- Visibility depends on structured data, reputation, and “AI trust.”

The brand — the agent must recognize it as reliable.
A new discipline is emerging: optimization for agents, dehumanization

Reality in 2026

AI referrals to stores are growing, but from a small base.
Standards are forming: UCP, ACP, AP2.

Sources: Adobe Analytics; Google, OpenAI, and Stripe publications (2025–2026).

Shared Reality

Agora...

85%

of respondents say they cannot distinguish real from generated; in 2025 — 66% (Malwarebytes, 2026)

≈ 1 in 2

cannot confidently identify authentic political content as real (review of 19 studies)

What Is Breaking Down

- Common facts give way to personal “opinions.”

The real can be denied as fake.
Institutions react more slowly than synthetic reality.

What Can Hold Trust in Institutions, Politics...

- Provenance and authenticity of content as a new type of trust.

New types of spaces for public conversation.
Transparency of platforms and agents that influence debate.

Democracy does not require everyone to think alike, but to have common facts over which to argue.

Sources: Malwarebytes (June 2026); The Conversation (2026); Full Fact Report 2026.

Europe and Bulgaria

Niches, Sovereignty, and Trust

Europe

- Regulation is a burden, but also an infrastructure of trust.

Science and industry are strong; capital and scaling lag behind.
Sovereign infrastructure is becoming a new form of strategic independence.
A fragmented market requires new niches, not imitation of large corporations.

Bulgaria

- IT talent, engineering culture, and Bulgarian-language models.

Small market, limited capital, and risk of brain drain.
Realistic role: specialized solutions, regional data, niche services.
What matters is not scale, but the speed of niche positioning.

AI Factory and the Black Sea Region

Infrastructure as Geopolitics

What Is an AI Factory

- New AI public infrastructure

Applications in the Region

- Maritime logistics, ports, energy and sustainability, security, drones — collective intelligence, disasters, biodiversity

Tourism, cities, security, and climate risks.
The Black Sea region can become a laboratory for regional AI connectivity.

What Should We Do

From Adaptation to Governing the Future

Personal

Companies, Organizations, and Institutions

Societies

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