

NPF Mechatronica-Pro Ltd.,
Tomsk, Russia

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Facts



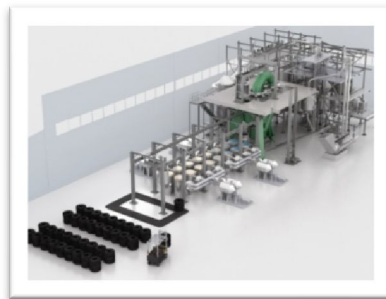
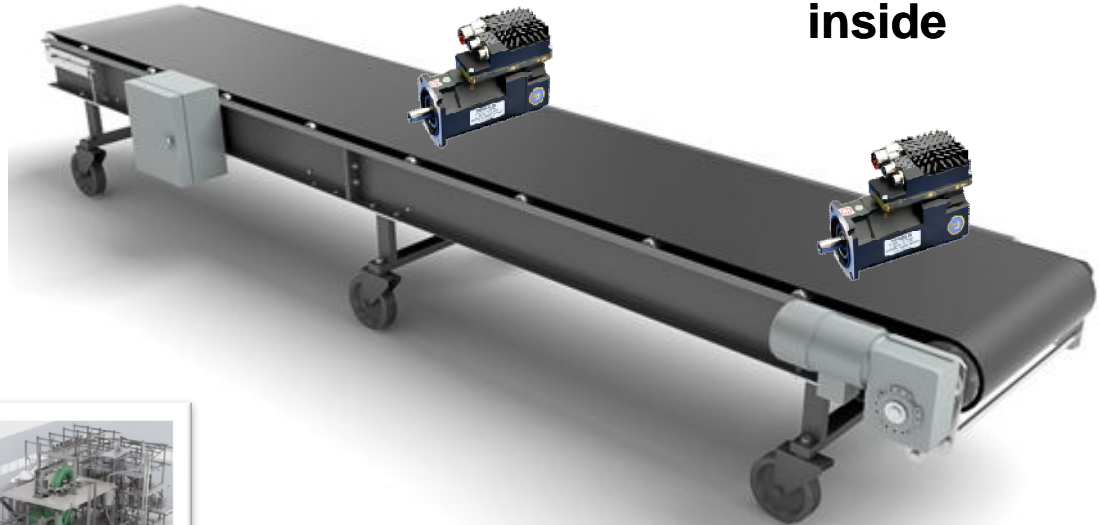
up to **50**
electrical motors
inside



1
electrical motor
inside



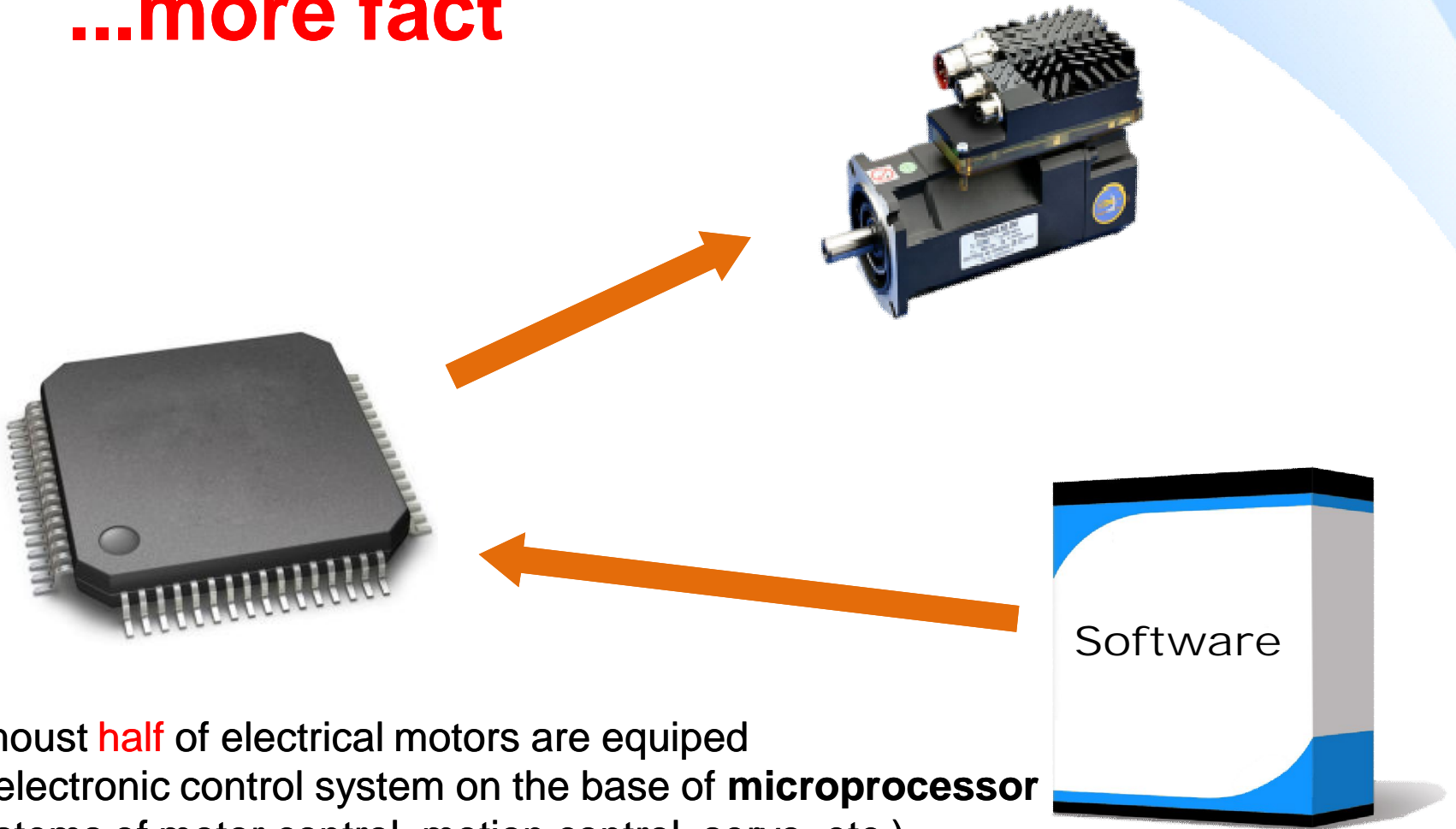
10
electrical motors
inside



Up to **100..1000**
electrical motors
for every automated process

Every year
world industry produces
1 000 000 000
electrical motors

...more fact



Almost **half** of electrical motors are equipped by electronic control system on the base of **microprocessor** (systems of motor control, motion control, servo, etc.).

Every **microprocessor** for motor/motion systems is controlled by special software.



Paradox:

Till this time,
there is no universal software platform
(operation system, standart applications, etc.)
for motor/motion control systems.

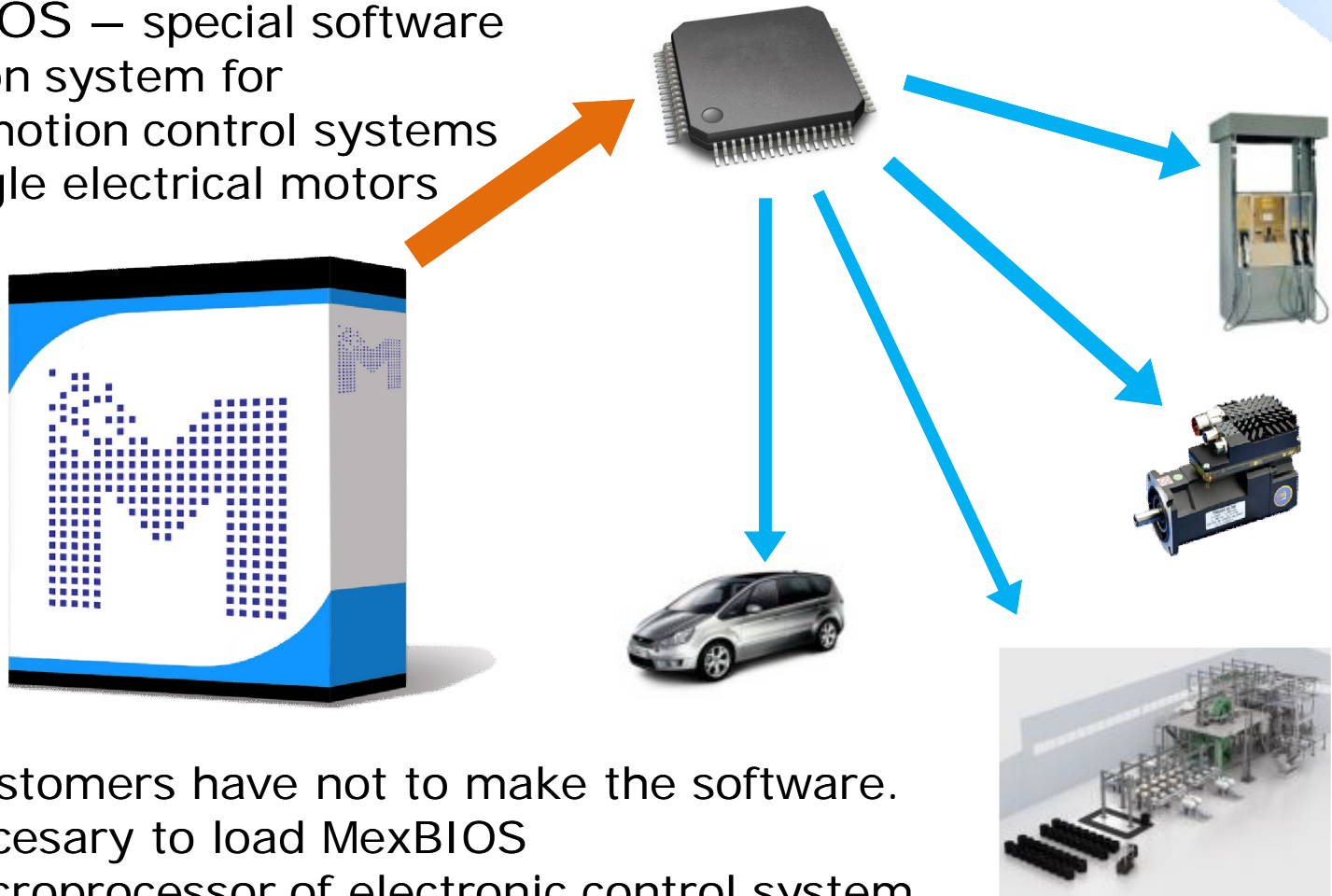


Problem:

Every time the producers have to create
control software from “white paper” (“invent **bicycle**”).
It needs time (3-6 monthes for every project).
It needs to pay salary to developers all this time.

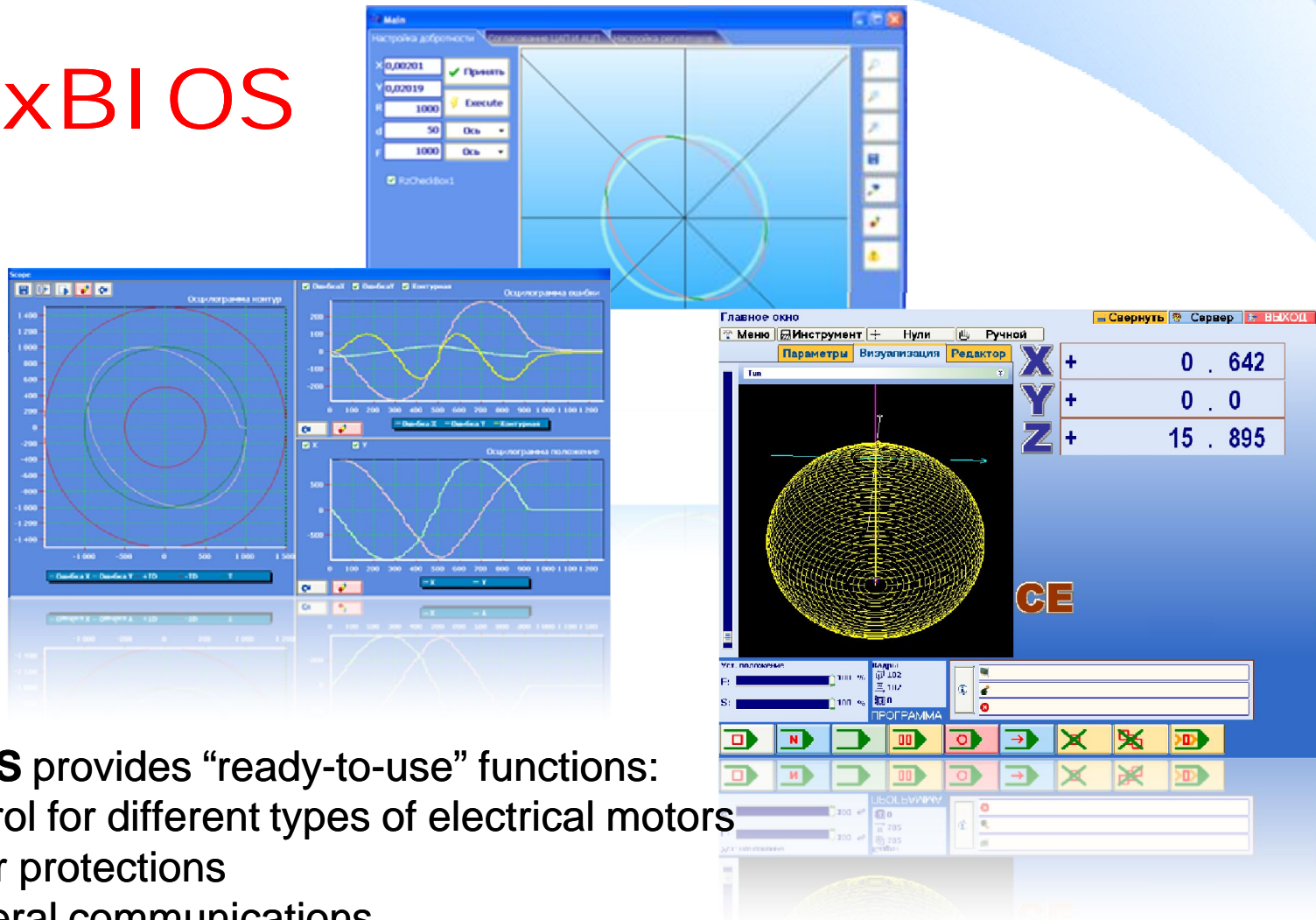
Decision:

MexBIOS – special software operation system for motor/motion control systems and single electrical motors



Now customers have not to make the software.
It is necessary to load MexBIOS
into microprocessor of electronic control system
and configure it.
MexBIOS provides all necessary functions
for motor/motion control systems.

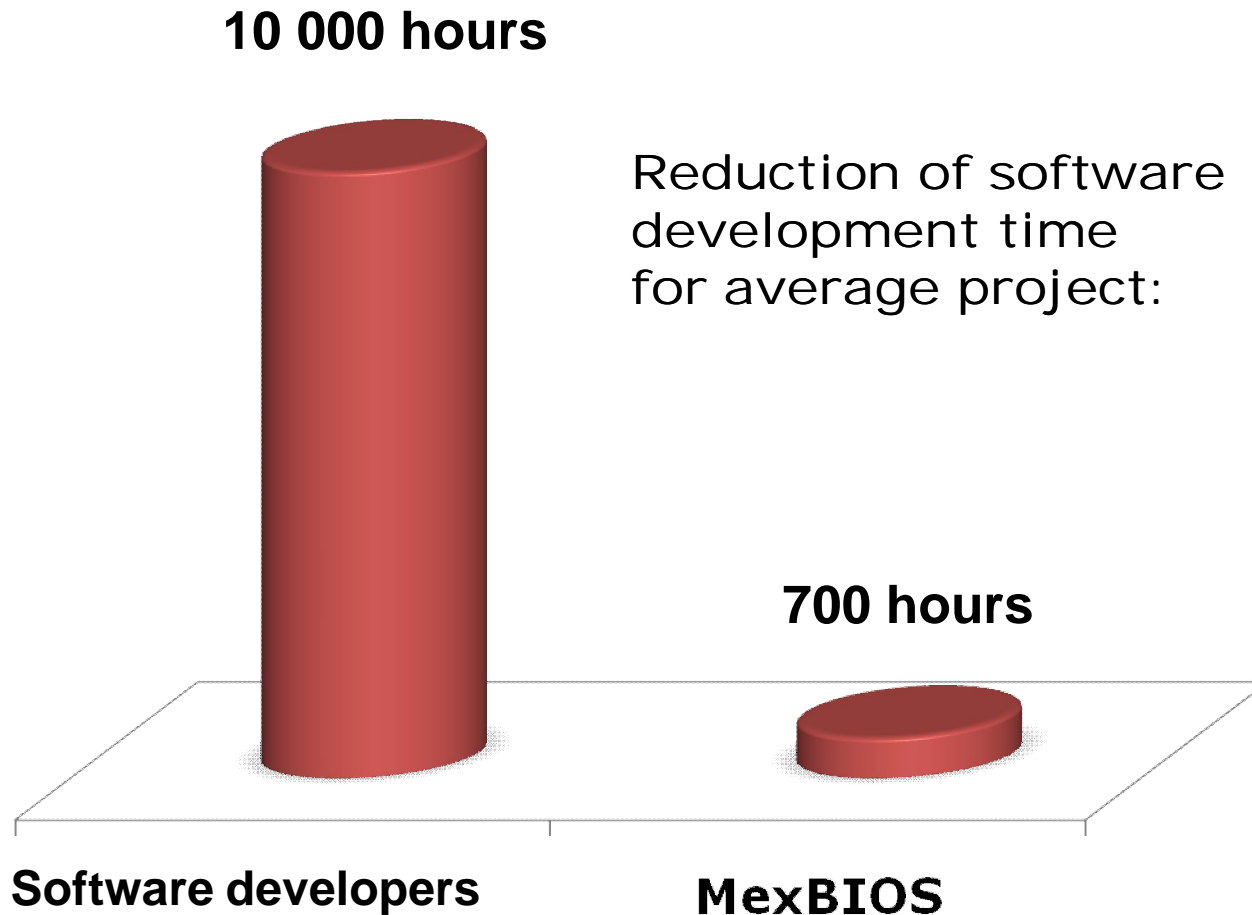
MexBI OS



MexBIOS provides “ready-to-use” functions:

1. Control for different types of electrical motors
2. Motor protections
3. Peripheral communications
4. Synchronisation of group of electrical drives
5. Human-machine interface
6. Logic control
7. Allows to start users algorithm

Main benefit



Competitors

**Producers
of motor/motion control chips:**

MEKTRONIX

NPM



Main competitors:

The teams of programmers
who make software
for motor/motion control systems

...but we are going to make their
development process more
easy and fast. Now they can work
under specific tasks
but not whole software

Partners



NII ET Russia, Voronezh – Russian producer of microprocessors



FIBR Russia, Tomsk – business consulting



Potomac Electric, Boston, MA - test and use of our software in US, technical and market consulting



Government of Tomsk region – help by finance and advertising



Tomsk politechnical university – science research, laboratory, equipment



Customers



NII ET Russia, Voronezh – Russian producer of microprocessors



Potomac Electric, Boston, MA
devices for motor control



Design Bureau for industrial automatics, Saratov
Developer of airplanes drives and avionics



Polus, Tomsk
Space- and aviatechics, avionics



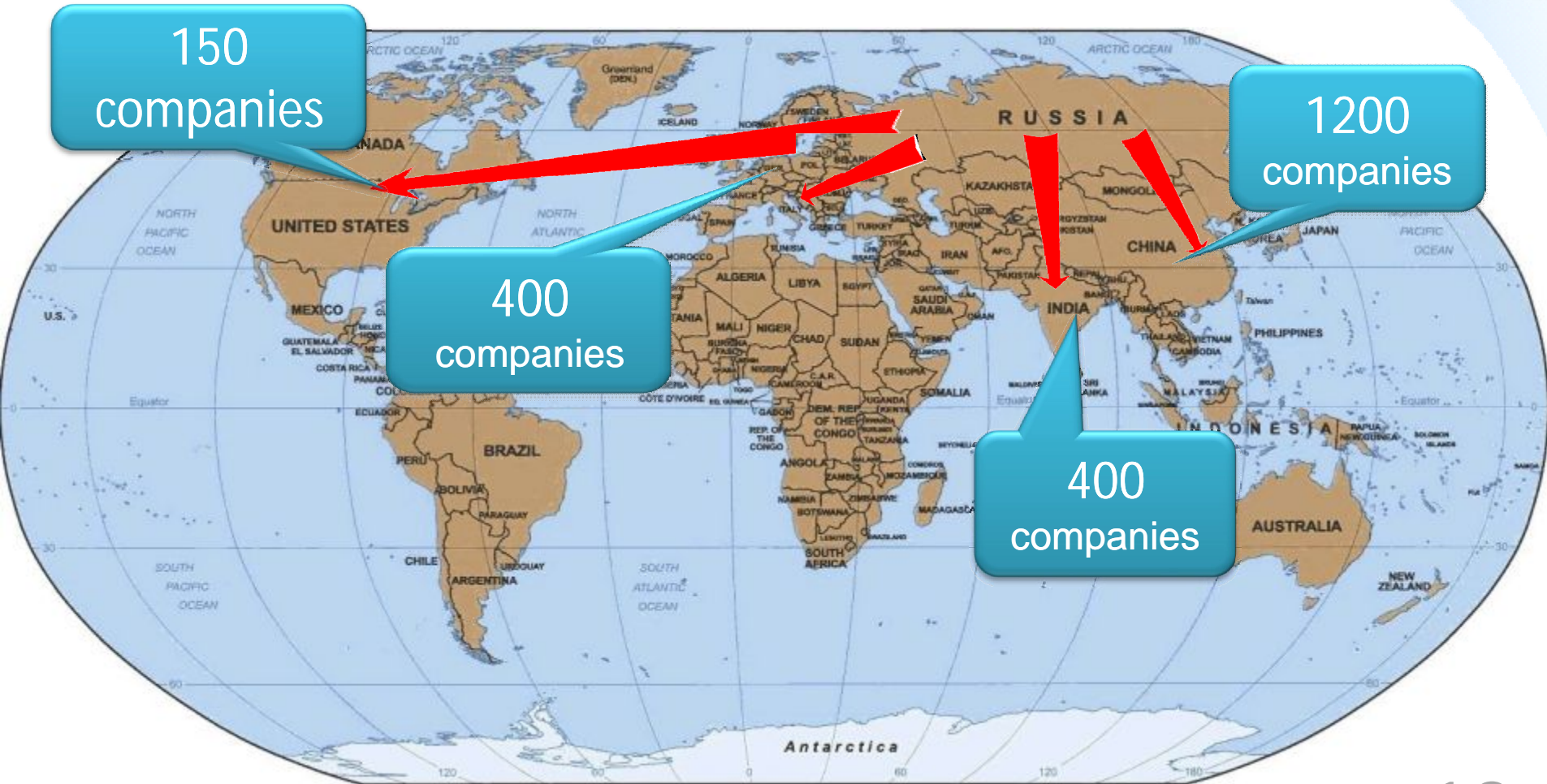
Project team

- ✓ 12 members
- ✓ 5 Ph.D. (electrical drives, math, automatic control, software)
- ✓ Experience - 8 years
- ✓ 12 executed projects,
6 projects for mass manufacturing



Fact: 30% oil in Russian tube is controlled by stop-valves with actuators where **MexBIOS** inside – software developed by the team.

Customers & World market*

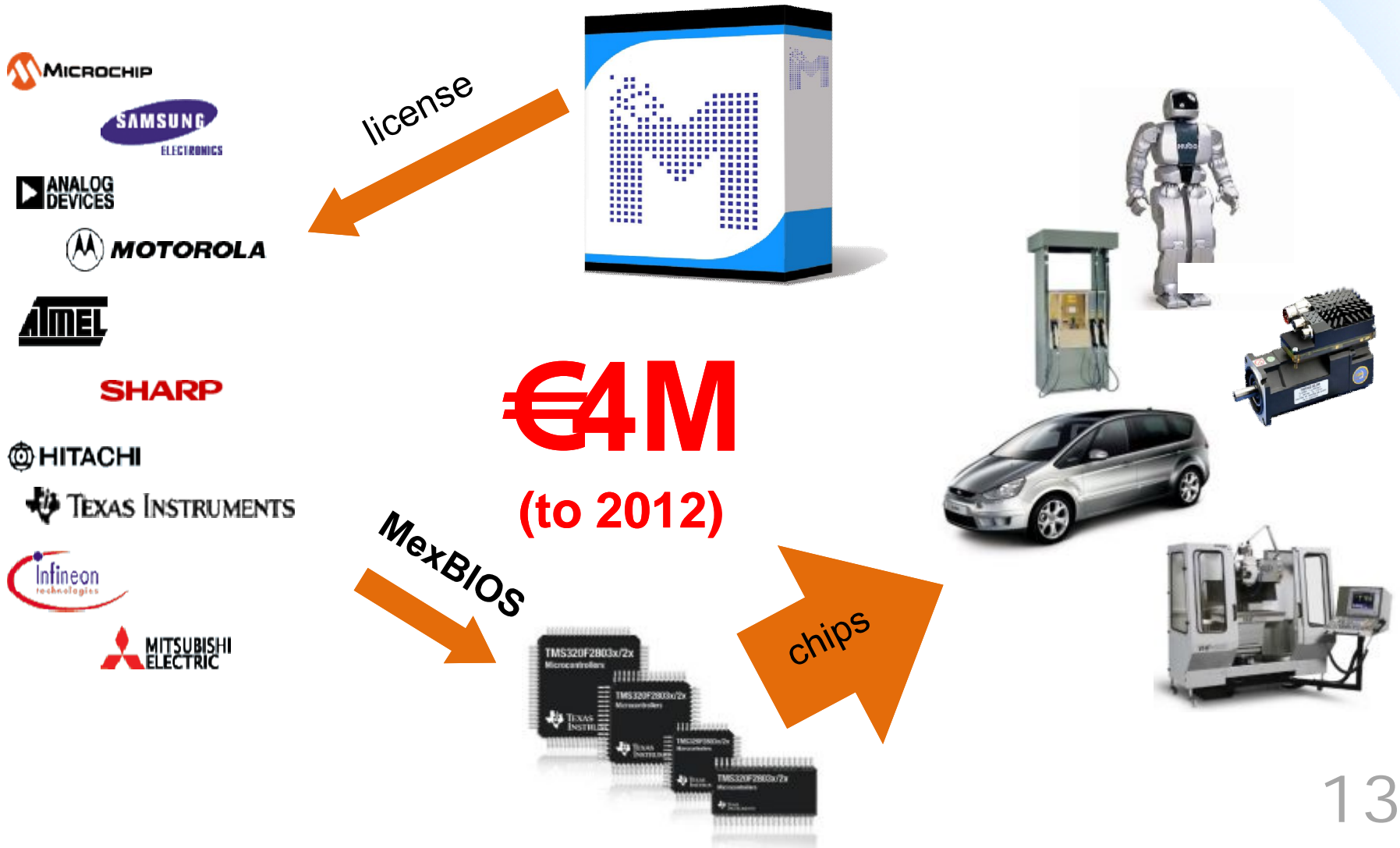


*It is presented only companies who produces motor/motion control systems

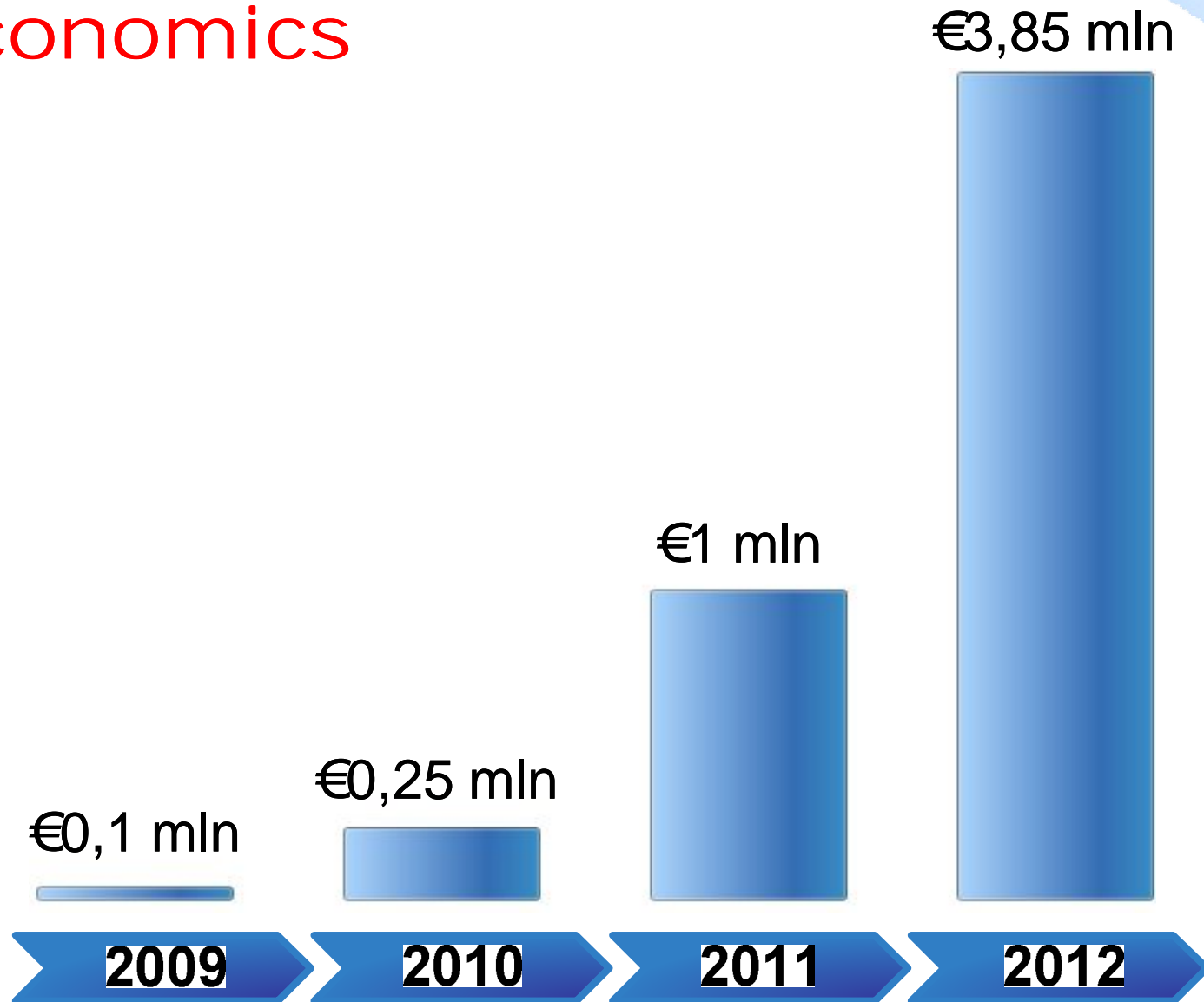
MexBIOS sale

We are going to sell the licenses for MexBIOS use.

1 License = 1 € = 1 chip = 1 motor



Economics



Risks

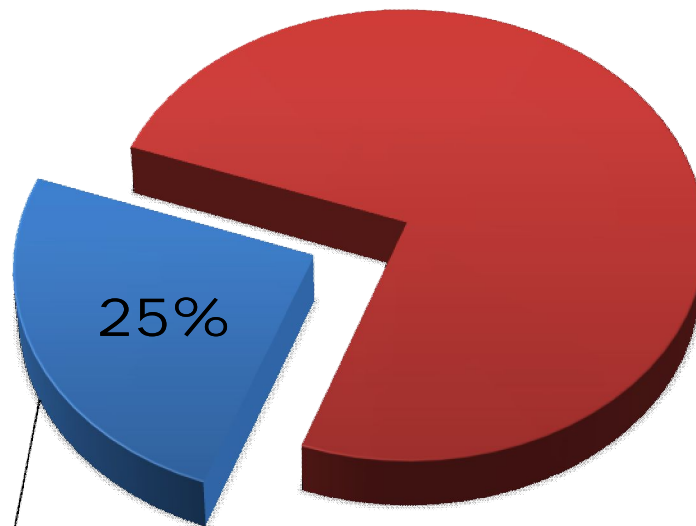
Customers conservatism

Loss of control for intellectual property

Low functionality comparing with
customers expectations



Investments



€1 000 000

We propose 25% of our business. We want to get 1 000 000 €.



We need money for:

- Exhibitions € 200 000
- Samples&Demoversions € 200 000
- "Third-party" programs of microprocessor producers € 100 000
- Adaptation for microprocessors of different producers € 100 000
- Business consulting
- Software testing € 50 000
- Debug board development € 150 000
- Development of devices for demo and test purposes € 100 000
- Intellectual property protection € 100 000



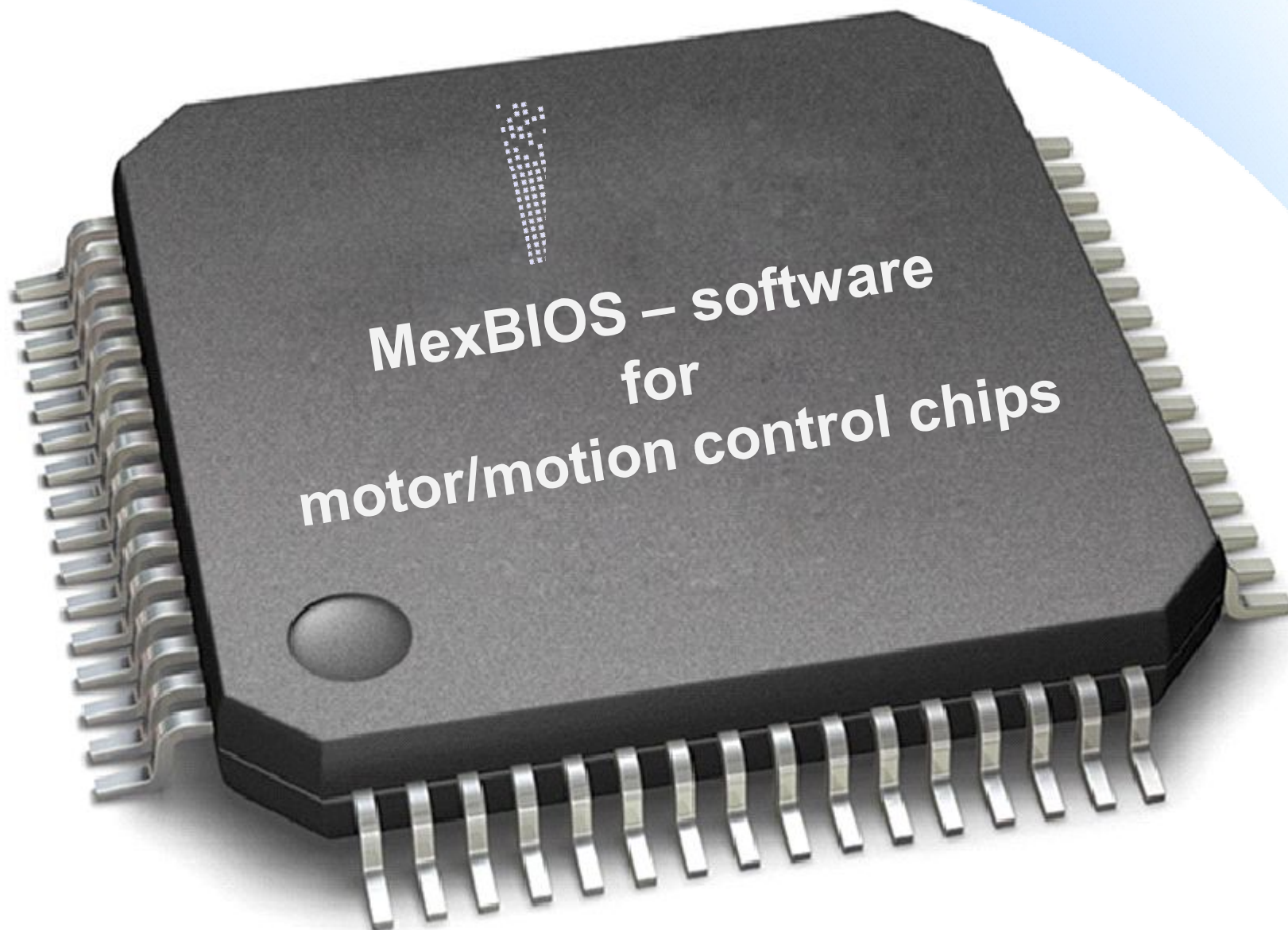
Finance

- $ARR = 196 \%$
- $PB = 26$ monthes
- $PI = 5,88$
- $NPV = \text{€}4 \text{ млн.}$
- Investor prospect:
to sell business to strategic
partners, producers of
microprocessors, software
developers





Thank you for your attention!



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