

SIT

Self-inflating tire technology

Informatory memorandum

Investment opportunity

CYRRUS, a.s. has been granted a mandate from the company CODA Development, s.r.o. to act on its behalf and conduct a search for an investor for its project of self-inflating tire (SIT) technology development. The company CODA Development, s.r.o. is already acting in this field. CODA has pushed the research and development process into phase of patenting of key inventions, which allow future implementation of SIT and market launching. Successful presentation of technology on world exhibitions has also been achieved. The presentation of mentioned inventions on crucial business congresses (SAE World Congress 2008, Tire Expo 2009 or 2009 Stanford Pitch Competition) has brought to CODA Development unique combination of awards (2008 AEI Tech Award, Tire Technology of the Year 2009), what unambiguously confirmed the interest in this technology both from tire and automotive sectors or the functionality of presented solution. With regard to necessity to finance next phase of research and development – development of tested and marketable products, CODA Development, s.r.o. has decided to join with other partner.

Closer information about SIT technology is available on: www.selfinflatingtire.com

Actual status of the project

- The company CODA Development, s.r.o. is the patentee for the substantive technical solutions related to the SIT technology in the USA, the Czech republic and Slovakia, and has further patents pending in EU, Japan, India and China.
- The outcome of present work is the model prototype of SIT, which is the company able to present e.g. on business congresses.
- Based on signed NDAs, the R&D of technology is being implemented by tires and rims producers in China and India. Also leading tire producers are expressing the interest in utilization of technology.
- The second manner of development of prototype being installed on real vehicles, is the engagement of small Czech team, which is already working on technology development for CODA Development, s.r.o.
- For ensuring the development of prototypes in all marketable forms (new tire containing SIT, retreaded tire with SIT, rim with integrated SIT and SIT as an individual item), CODA Development, s.r.o. has joined with professional American R&D company, from which obtained concrete offer of performance of works needed has been obtained.
- For ensuring clear and solid ownership structure, protecting intellectual property of the company and enabling the potential partner to simply enter the project, CODA Development, s.r.o. is currently also solving the question of structure of the group, which will own and use the technology.

Target status of the project

- The actual objective of the project of CODA Development, s.r.o. is the production and testing of the real product, with which CODA Development, s.r.o. will be able to enter the global tire or rim market (through sales of license).
- In the framework of development works also the documentation of machinery serving for the production will be obtained, enabling own manufacturing (in the manner of the transfer of production to the selected partner).

Leads of investment

- SIT is targeting tire or rim market sized ca 1,3 billion units a year, on which according expected production start income of USD 1-2 per passenger car wheel or USD 4-8 per truck wheel can be charged. The potential of technology is to get dominant share of this market.
- The SIT technology reacts to actual, wide problem of road transport – the underinflation of tires, which adversely affects vehicle performance, safety and fuel consumption.
- The elimination of these problems is in accordance with the policies of the developed countries for the environmental protection and improving safety. The successful functional technology has the potential of being mandatory part of car equipment on developed markets (U.S., European and Japanese markets amounts ca 3/4 of global tire market).
- To the tires or rims producers, the quick implementation of SIT allows to get competitive advance and boost low profit margins in the sector.
- To the consumers, the technology allows to reach savings in operating costs (lower fuel consumption, longer life-span of properly inflated tires).

- The attraction of technology has been confirmed on leading global business congresses, simultaneously the interest of leading global tires or rims producers, car makers or final users (fleet managers included) is being expressed.
- A variant solution of research and development by CODA Development, s.r.o. allows to enter the market in way ensuring lowest barriers and maximal gainable royalties.
- With respect to other technologies responsive to the tire underinflation problem, SIT offers cheaper, but more complex and effective solution (and related high potential of success on the market, where are, in light of different approach, no direct competitors).

Ownership structure

Actually, the SIT technology development project is secured by Czech company CODA Development, s.r.o. In the target structure, there is assumption of foundation of new company, with the only purpose – to protect the intellectual property. The new company (with operational name „Box“) will not enter into any legal-business relationships, it will simply provide a licence for another company planned in the future structure („Sales“), which will additionally sell the SIT products manufacturing sub-licenses.

The investor is supposed to enter the „Box“ company. The "Sales" company will be established as an affiliated company of the "Box" company – in which case the investor will control it through this company, or it will be established independently - then the investor receives a share in it equal to the share in the "Box" company. Through entering the "Box" company, the investor will participate in the beneficial results of all technology development approaches, the already ongoing included, even his/her financial contribution is supposed only on one of them (research and development performed by U.S. company).

Investment needed / Financial projection

- To achieve the objectives of the project, namely the creation of products usable in the market (SIT as part of tire, rim, retreaded tire or as independent device) and the requisite machinery and equipment, on the basis of which it will be possible, in case of the company's decision to carry out production by its own means, it will be necessary to obtain the amount corresponding to **USD 10 million**.
- The sum will be divided into several parts – payment for research and development work provided by American partner (with maximal budget of USD 6.7 million, the verification of the plan and its progress will be implemented repeatedly and the decrease of projected budget is then expected) and sum dedicated to settlement of operating costs of joint venture (commitment of project manager controlling progress of work, but also general run of the company, marketing activities included, this project manager will be chosen on the basis of agreement between CODA Development, s.r.o. and its partner; securing of patents flowing from the development process; costs of CODA Development, s.r.o. team etc.).
- CODA Development, s.r.o. assumes that the R&D work will take between 1.5 to 2 years from this current moment in time. The start-up of revenues generated from the sale of licenses to a significant extent is therefore, in principle, not counted on until the year 2011 (in the case of success in the work of the Asian partners, however, the start-up of revenues will be a possibility already in course of the year 2010).
- As a part of tender for supply of complete R&D of SIT, the team of CODA Development, s.r.o. negotiated with two U.S. R&D companies in November 2009. The result of these negotiations is higher understanding among companies, increasing the probability of achievement of more favourable conditions (lower price, shorter time of R&D works) compared with originally provided indicative levels.

The outlook of revenue potential of SIT technology (in variant solutions according to forecasting models used, with relevant sensitivity analysis confirming the attractiveness of marketing the technology even if much more conservative scenario will be achieved than expected) are parts of business plan distributed on the basis of signed NDA.

- The revenue potential of SIT technology is determined by the ability to achieve a certain market share of world tire/rim market (whether original equipment or especially replacement tire segment) and by the level of royalty payments obtaining from the technology exploitation by individual tires and rims producers.
- The expected increase of costs for manufacturers of tires or rims is due to simplicity of solution lower than USD 2 per unit (conservative scenario, more likely this increase will not be higher than tens of US cents).
- Expected range of royalty payments according different model (see financial part of business plan) is USD 1-2 per wheel in passenger cars segment or USD 4-8 per wheel in trucks and buses segment.
- The ambition of SIT technology is to reach 50% market share within roughly 7 years (scenario proven in TPMS's case in the U.S. market).

Table 1: Expected development of future royalties

	2011	2012	2013	2014	2015	2016	2017
Royalty payments level (USD)							
Passenger cars							
Conservative scenario	1,1	1,1	1,2	1,2	1,3	1,3	1,4
Optimistic scenario	2,0	2,0	2,0	2,0	2,0	2,0	2,0
Trucks and buses							
Conservative scenario	3,9	4,0	4,3	4,5	4,6	4,8	5,0
Optimistic scenario	8,0	8,0	8,0	8,0	8,0	8,0	8,0
Market share							
Passenger cars	0 %	1 %	3 %	5 %	10 %	20 %	40 %
Trucks and buses	2 %	5 %	10 %	20 %	30 %	40 %	50 %
Royalty payments total (in USD mil.)							
Passenger cars							
Conservative scenario	7	27	81	151	277	481	843
Optimistic scenario	12	48	135	242	428	714	1 205
Trucks and buses							
Conservative scenario	12	33	74	160	261	376	508
Optimistic scenario	25	66	137	287	451	625	814

Source: CYRRUS, a. s.

Sale process

CYRRUS, a.s. realizes the sale process in the form of selection procedure, which has two consequent phases:

Phase I.:

- The distribution of the informatory memorandum of the project and of the proposal of non-disclosure agreement (NDA)
- Based on signed NDA more detailed information will be provided (above all business plan, or other on request and with agreement of CODA Development, s.r.o.), the structure of the investment will be discussed (so far the sale of minority stake in new established joint venture is preferred).
- Potential investors can give preliminary offers with defined price offered and other parameters.

Phase II.:

- After judging of preliminary offers, selected investors will be acquainted with information about CODA Development, s.r.o., for executing of due diligence.
- During Phase II., the proposal of main conditions of transaction (composing the core of transaction documents) will be distributed for reminders. Its final form will be part of following obligatory offer.
- Accomplishment of transaction documents with winning investor.

Timeline of comm. with investors

- 23. 11. 2009 – 13. 12. 2009: distribution of informatory memorandum and proposal of non-disclosure agreement (NDA)
- 14. 12. 2009 – 31. 1. 2010: distribution of business plan (ca 60 pages), or other information related to the project, presentation and discussing of the information
- 14. 2. 2010: term for giving preliminary offers from investors
- other steps following preliminary offers

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