

**The Economic Effects on Michigan of the
Grunewald Research & Development Center**

Prepared by the Michigan Economic Development Corporation utilizing Regional
Economic Models, Incorporated (REMI) software.

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Abstract

Grunewald New Technologies is considering building a research and development, design, engineering and production center in Waterford Township, Michigan. This facility would produce highly sophisticated molds and tools for the automotive industry. The new facility would employ up to 42 people by the end of 2006. We estimate that by 2011, this location will have generated a total of 126 jobs in the state. Total state government revenues through 2011, net of MEGA costs and adjusted for inflation, would increase by \$4.8 million (2001 dollars) due to the location of the Grunewald Research & Development Center.

The purpose of this study is to estimate the potential economic and fiscal benefits to Michigan of Grunewald New Technologies locating a research and development, design, engineering and production center in Waterford Township. Investment activity would take place between 2002 and 2006 with an investment of \$7 million. The facility would employ an additional 42 people and would be at full production by 2002.

The estimates of the benefits attributable to the project include the total number of jobs created in Michigan (by major industry, including spin-off jobs), and the associated personal income and state government revenue. Benefits net of the MEGA incentive package, from 2002 to 2011, are shown in the attached table. The MEGA incentive package includes a tax credit to the company equal to 100 percent of the state income tax rate on the payroll (gross wages) of employees hired at the facility for the period 2002 to 2006, and a tax credit to the company equal to 50 percent of the state income tax rate on payroll (gross wages) of employees hired at the facility for the period 2007 to 2011.

The total employment effects, reported in the first line of the table, include the direct jobs created at the facility itself plus spin-off jobs. The spin-off jobs are created from two sources, increased purchases from Michigan suppliers and spending by people who receive income due to the increased economic activity. In 2006, the first year of full operations, an additional 163 jobs are generated in the state. The total number of jobs (direct plus spin-off) for every direct job introduced constitutes the "employment multiplier." The employment multiplier for the expansion averages 2.6 over the period 2002 to 2011. Sectoral detail on the employment is also shown in the table.

Personal income is shown in the next section of the table. Personal income is defined as the income of Michigan residents from all sources, after deduction of contributions to social insurance programs but before deduction of income tax and other personal taxes. As shown in the table, if Grunewald New Technologies were to locate in Michigan under the incentive program, state personal income in 2006 would be higher by \$10 million (in current dollars) than it would be without the facility, and in 2011, it would be \$11 million higher. Adjusted for inflation, these numbers in 2001 dollars would be \$8.9 million in 2006 and \$9 million in 2011.

The gain in economic activity results in higher government revenues. We estimate that in 2007, the first year of full operations without investment activity, the facility would generate \$798,000 in additional gross state revenue, and that the MEGA package would provide a \$66,000 incentive to Grunewald New Technologies. Thus, the new Grunewald New Technologies facility would increase state revenues in 2007 by \$671,000, net of MEGA costs.

Over the period 2002 to 2011 state government revenue is projected to increase by \$6.1 million (in current dollars) due to the new Grunewald New Technologies facility. The MEGA incentive package for Grunewald New Technologies is forecast to cost \$700,000 over the period, resulting in a net increase in state government revenue of \$5.4 million. Adjusted for inflation, the total net increase in state government revenue from 2002 to 2011 would be \$4.8 million in 2001 dollars. These calculations do not include any revenue losses due to the property tax abatement or the investment tax credit. If the costs of the abatement and the tax credit were included, the net revenue gain to state government would be slightly less.

None of the estimates include the nonmeasurable effects that would produce additional economic and fiscal benefits for Michigan, such as the intangible advantages of influencing other location and expansion decisions.

**Grunewald Research & Development Center
Economic and Fiscal Effects on Michigan - Net Benefits with the Incentive Package**

Economic/Fiscal Indicator	2002	2003	2004	2005	2006	2007	2008	2010	2011	Total
Total Employment	40	47	82	98	163	138	133	130	126	
Manufacturing	8	17	29	34	50	47	46	44	44	
Non-Manufacturing	32	30	53	64	113	91	87	86	82	
Retail Trade	5	6	10	12	20	17	16	15	15	
Services	10	13	23	28	48	42	41	41	40	
Other	17	11	20	24	45	32	30	30	27	
In Current Dollars (Thousands):										
Personal Income	\$1,892	\$2,625	\$4,639	\$5,981	\$9,979	\$9,644	\$9,888	\$10,710	\$11,020	\$76,848
Gross State Revenue	151	210	371	478	798	772	791	857	882	6,148
Mega Cost	20	42	68	86	127	66	68	74	76	700
State Revenue Net of MEGA Cost*	\$131	\$168	\$303	\$392	\$671	\$706	\$723	\$783	\$806	\$5,448
Adjusted for Inflation (Thousands of 2001 Dollars):										
Personal Income	\$1,858	\$2,528	\$4,380	\$5,536	\$9,055	\$8,580	\$8,626	\$8,949	\$9,006	\$67,461
Gross State Revenue	148	202	350	442	724	687	690	716	721	5,396
Mega Cost	20	41	65	80	116	59	60	61	62	625
State Revenue Net of MEGA Cost*	\$128	\$161	\$285	\$362	\$608	\$628	\$630	\$655	\$659	\$4,771

* These estimates do not include any state government revenue losses due to the Investment Tax Credit, the Renaissance Zone Credit or the property tax abatement.