

**Mixed-Use Development:  
A Review of Professional Literature**

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## Table of Contents

1. Introduction	4
2. Factors Making the Mixed-Use Development Popular	6
3. Financial Feasibility of a Mixed-Use Development	6
4. Factors Leading to the Financial Success of a Mixed-Use Development	8
a. Economic and Market Factors	8
b. Financial Factors	11
c. Physical Factors	12
d. Design Factors	13
e. Public Issues	15
5. Challenges, Obstacles or Barriers to Mixed-use Development	15
6. Conclusion	17
7. References	18
8. Endnotes	20

## **Introduction**

A mixed-use development is a real estate project with planned integration of some combination of retail, office, residential, hotel, recreation or other functions. It is pedestrian-oriented and contains elements of a live-work-play environment. It maximizes space usage, has amenities and architectural expression and tends to mitigate traffic and sprawl. This definition was presented at a recent conference on the topic sponsored by four professional organizations in the real estate industry -- ICSC, NAIOP, NMHC & BOMA.<sup>1</sup>

This definition of a mixed-use development contrasts to a multi-use development that has two or more land uses on a single site but does not have the degree of project planning and integration posited for a mixed-use development. In fact, integration of the uses may be totally lacking. The live-work-play element is not present and the project is not pedestrian oriented. A classic example of a multi-use project is a single site developed with an unanchored strip center next to a small office building for tenants such as insurance agents, dentists, doctors, etc.<sup>2</sup>

A mixed-use development is not a standardized product form. It can differ in location because it can be built in an urban setting or a suburban setting. The density levels are generally higher in an urban setting but not necessarily. It can differ in relation to its surroundings. It can be a higher density infill project in an established urban setting or it can be a development in the growth corridor in a suburban setting. It can also differ in configuration. Consider the next paragraph.

A mixed-use development can take four general forms.

- First, it can be a single high-rise structure on a single site that contains two or more uses integrated into the structure. Typically, this form of the mixed-use development has retail on the street level with offices over the retail and either residential units or hotel space over the office space.
- Second, it can be two or more high-rise structures on a single site with each structure holding a different use. The office building, residential tower (condominium ownership) and a hotel are the typical combination. Retail, but different forms of it, can also exist on the ground levels of each use.
- Third, the mixed-use development can be a combination of different low rise structures on a single site with retail on the ground level with residential units above in one structure and office space above in another structure.
- Fourth, it can be a single mid-rise structure on a single site typically in an urban setting with retail on the ground and residential or office above. Depending on the developer's insights and opportunities, each of the four forms of mixed-use developments in the previous paragraph can be built in an urban or a suburban setting, and it can be considered an infill project or an expansion project.

Two differentiating terms about the uses in a mixed-use development appear in the literature. They are “cornerstone use” and “dominant use.” The cornerstone use is the most viable and profitable use in the project. It drives the development concept as well as the decisions about the suitability and compatibility of the other uses in the project. The dominant use is the use that takes up the most space in the project. The dominant use might not be the cornerstone use but it needs to be financially strong.<sup>3</sup>

## **Factors Making the Mixed-Use Development Popular**

From the developer's perspective a mixed-use development is identified as being a popular format because it is perceived as providing the following benefits:

- Convenience of live-work-play options in a single location
- Satisfying the desire to live in more of a small-town (e.g. "Main Street") environment. This desire is brought about by changing demographics and psychographics favoring the property type
- Reducing traffic congestion

Again from the developer's perspective a mixed-use development is fostered by the following occurrences:

- Rising land prices
- Encouragement by local public agencies (economic development, planning, zoning board, etc.)

Finally, a developer's "optimal land use plan" for a mixed-use development has been stated as:

- Highest land density
- Most rapid absorption of finished sites at the highest price
- Highest present value of the project

## **Financial Feasibility of a Mixed-use Development**

The focus of this literature review is financial feasibility of mixed-use development. Financial feasibility defines the situation when the return on the investment in a mixed-use development meets or exceeds the expected or the required return of the developer and/or the investor in the project. An alternative but less precise expression is the financial success of the project.

Measurement tools for financial success discussed in the literature are expressed in different ways. Discounted cash flow analysis generating an IRR is an important tool.

The rates of return such as cash on cash return are also considered useful tools.<sup>4</sup>

The issue of risk in mixed-use development does not have a definitive answer. Some developers believe that a mixed-use project diversifies risk across the uses.<sup>5</sup> Other developers believe that the added financial and physical complexity of a mixed-use development heightens the uncertainty associated with the project and thereby increases the level of risk. In fact, both of these situations can arise for a specific project.

Feasibility analysis can be adapted to a prospective view asking the question, “what will the project earn if it is developed,” and a retrospective view asking the question, “what did the project earn?” Regarding the prospective view, three insights are shared.

- *Financial success depends on a faster time to build out and lease up the project.* The shorter the construction phase and the higher the initial occupancy, the better the prospects are for achieving feasibility objectives. “The optimal land use plan is rarely the plan that provides the greatest possible density. ... Rather, it is the plan that provides for the most rapid absorption of finished sites (driven by end-user demand for space) at the highest price.”<sup>6</sup> Substitute “uses” for “sites” and this comment is appropriate.
- *Financial success depends on minimizing the outflow of funds.*<sup>7</sup> This is not to say that the project is done on the cheap but that initial equity is minimized by finding lenders willing to provide higher loan to value ratios. Also the ability to obtain development incentives for the local jurisdiction is an important aspect of minimizing the outflow of funds.
- *Financial success depends on “being able to maximize and mix the uses in a way that responds to market conditions, opportunities and economics...”*<sup>8</sup>

Using financial feasibility in a retrospective view, a comparison between the expected pro forma and the actual performance of the property is the best measurement of financial success.

### **Factors Leading to the Financial Success of a Mixed-use Development**

Factors leading to the financial success of a mixed-use development can be grouped in the following categories:

- Economic and Market
- Financial
- Physical
- Design
- Public Issues

#### Economic and Market Factors

The economic factors are property market factors. Each use on the site must attract a significant level of market demand in its own right. This is often stated as attracting an adequate or threshold demand in the market for each use on the site. The uses need to be compatible and complementary. They need to be mutually supportive, and they need to achieve synergy among themselves.<sup>9</sup> If this synergy is achieved, it increases both the investment value and the market value of the project.

How is synergy achieved in a mixed-use development? The following explanations appear in the literature.

- Each use is able to generate revenue from the other uses on the site. Occupants of the residential and office uses shop at the on-site retail facilities. Office and retail space users live in the residential units.
- Each use is an amenity for the other uses. Office users need restaurants and hotels in close proximity to attract tenants. Hotels benefit from visitors to the office space.



- The combination of uses provides a place for supply to meet existing, unfulfilled demand in the geographic market area. Moreover, it could be a catalyst to redevelop a blighted area which increases the future level of demand. It could be a “town center” for a suburban community which will attract consumers from further distances. It could be a starting point for additional development projects.

Generating and maintaining strong linkages to other land users external to the mixed-use development are also important market factors. The on-site restaurants also need to serve potential customers (residential users and office space users) living or working in close proximity to the project. Retail establishments should also be able to do the same.

Competition with external projects needs to be considered. For example, building retail space near a highly successful super-regional mall surrounded by power centers, community centers and a lifestyle center may lead to high retail space vacancy when the office and residential components are successful. Similarly, building hotel space on the same site could be a problem if the existing economic node has excess hotel space.

A word of caution is offered in the following statement. “Just because you have high-end retail doesn’t mean you have a high-end condo market.”<sup>10</sup> Our interpretation of this word of caution is not that a strong level of demand for one use signals a strong demand for other uses. Each use needs to be analyzed with regard to its own demand and supply position.

Market analysis is important in determining the demand and supply positions of each use. It should be used in the same manner as it is used to analyze a single use project. “... many tenants’ businesses will depend on demand from the surrounding area.”<sup>11</sup> But, then it should evaluate the potential rent premium (integration or synergistic effect) brought about by multiple uses on a single site.<sup>12</sup>

“Market factors are not static, and change with time and other influences.”<sup>13</sup>

Economists tell us that these other influences are the traditional variables that cause a change in the position of demand – the number of consumers, disposable income, tastes and preferences and the price of both complementary and substitute goods. Therefore, market analysis should be dynamic not static. “Two keys to success are to do your homework up-front, and to revisit it regularly at every phase and after build-out. These market analyses need to be fine-grained and tailored enough to your locale, for you to identify both shifts in preferences and niches that aren’t served. This requires a dual-pronged approach – one to evaluate the market at that point in time and the other to assess how well you’re meeting it. As the market changes, so should your project.”<sup>14</sup>

Finally, the geographic extent of the retail trade areas of each of the anchor tenants and the majority of the non-anchor tenants needs to be considered. One mistake that can be made is the assumption that the retail trade area for the retail establishments in the project are all the same. Some of the shops will attract customers from a greater distance than other shops. A three-mile ring could be too much geography for some stores and not enough for other stores. A related mistake is assuming that the retail trade area for the most prestigious retail store is the trade area for the project.

The mixed-use development has phasing and timing issues that go beyond those typically experienced in single use development. The issues appearing in literature are:

- Each phase should be able to survive on its own if subsequent phases are not built
- The first phase sets the theme, the tone and the quality level of the project<sup>15</sup>
- Each phase need not have the same length of time or mass
- The financial feasibility of the next phase need not reflect that of the earlier phase(s). It could be better, or it could be worse.<sup>16</sup>

- Phasing is more difficult because enough critical mass has to be created at the beginning. This makes normal absorption analysis difficult.<sup>17</sup>

*Note: The information contained in the above bullets was taken from a convenience survey sample of NAIOP mixed-use developers that was not shown to be statistically significant.*

### Financial Factors

The financial factors are discussed from different perspectives. One discussion thread considers complicating issues that make it more difficult to finance the mixed-use development than a single use project of equal or equivalent size<sup>18</sup>. This financial perspective includes the following points:

- Equity requirements can be substantially higher for the mixed-use project than for a single use development of equal size.
- The mixed-use development requires a longer development period with phasing over longer periods. This makes it more difficult to finance a mixed-use development than a single use development of equal size.<sup>19</sup>
- Larger capital requirements limit the number of potential development firms and financial institutions that have the resources to undertake a mixed-use project.
- Additional complexity occurs as each use is underwritten separately.
- Financial entities tend to focus on specific single use property types and view the mixed-use development as too complex and complicated.
- Investors providing initial equity understand mixed-use development as an investment opportunity and perceive it as a higher risk investment.<sup>20</sup>
- More money in the capital markets for real estate is causing developers to take on mixed-use projects in the wrong location, with wrong structure, without the proper understanding of the market. [based on August 2007 research]

Another discussion thread considers how financial arrangements and costs for a mixed-use development compare to those for a single use project of equal or equivalent size.

- Initial planning costs are much larger for the mixed-use development.<sup>21</sup>
- Sites for mixed-use development require the ability to serve different property markets so the land costs are generally higher.
- Construction costs for a single structure mixed-use development are generally higher.

- Land carrying costs could be greater than or less than those for a single use project. They could be greater due to the need to the larger site and the timing and phasing of the project. They could be less than those for a very large single use project. (Like an office park or a residential subdivision because the uses could be developed earlier than the phasing in the office park.)
- The contributory value of one use should not subsidize the other uses on the property.<sup>22</sup>
- The effects of other financial factors are generally not certain or unequivocally clear; they could be greater for the mixed-use development or less. These factors are:
  - Density of development
  - Operating costs
  - Parking area costs
  - Common area costs
  - Performance in achievable rents and occupancy

### Physical Factors

Physical site factors suitable for a horizontal mixed-use development on a single parcel of land containing residential, retail and office include the following statements extracted from the literature.

- Appropriate site size and shape to hold all the elements of the development.
- Easy access onto, and egress from the site and its parking area.
- Access to modes of transportation other than automobile.
- Convenient and attractive pedestrian circulation among the uses.
- Easy access and connectivity to adjacent and proximate land users.
- High visibility of the project but not necessarily of all the component uses -- also highly visible and attractive street or monument signage.
- Attractive visual orientation internal to the project, attractive streetscapes.
- Proper topography, flat acreage for the retail is preferred. Structures not directly linked to the retail can be on elevated ground.
- Attractive landscape and streetscape.
- Easily readable and clear internal signage for both drivers and pedestrians.
- Vehicle circulation that is unobtrusive for both drivers and pedestrians.
- Storm water drainage capability.

## Design Factors

The mixed-use development must be based on a master plan.<sup>23</sup> In that master plan, the biggest issue associated with the design of a mixed-use development is parking that provides benefits to the mixed-use development but also creates additional costs for the mixed-use development. In a mixed-use development “you can reduce the total amount of parking”<sup>24</sup> and “since parking demand peaks at different times during the day for different uses, shared parking is important because it is a very expensive item in the total construction costs.”<sup>25</sup> However, many big issues underlie the concept of shared parking. Space users want the standard parking ratios; retailers want five spaces per 1,000 square feet of gross leasable area.<sup>26</sup> Residential users want their parking area separated from the commercial parking areas even in a shared structure, and they want their own entrance and exit separated from the commercial entrances and exits.

The other big issue in the design of the site is that “mixed-use is all about place making.”<sup>27, 28</sup> The best definition in the literature for place making is “the creation of vibrant, pedestrian-friendly areas with a mix of complementary land uses. In terms of retail, place making means shopping or dining that is less about selling and more about creating an experience.”<sup>29</sup> Some hints about what comprises place making are:

- The mixed-use should be sensitive to the market area’s history or its future outlook and tie its design features into it. The mixed-use needs to be high quality in all of its aspects; it could be moderate quality in some aspects but not all.<sup>30</sup>
- Developers often make the mistake of making the buildings look all the same when they should go out of our way to make the buildings look eclectic. We want the project to look like it was built over multiple decades and designed by different architects. It should look like a real town, which it is.<sup>31</sup>

- There needs to be a successful integration of open spaces with the buildings and the buildings should also be integrated.
- The common area or areas are important design features to make a “place.”
- Even though parks and squares do not pay rent, stores near them have increased sales volumes.<sup>32</sup>

Critical on-site design elements<sup>33</sup> that need to be incorporated in a mixed-use development include:

- Noise abatement by separation or soundproofing between uses.
- Fire retardation measures through construction techniques.<sup>34</sup>
- Odor suppression by separation or proper venting of the odors.
- Loading areas for commercial uses hidden from sight.
- Connectivity of pedestrian and cycling among the uses.
- Transition areas – separate uses with landscaping, screening, buffer zones, setbacks, etc.<sup>35</sup>
- Open space<sup>36</sup>

Integrating the project with the neighborhood is essential to winning community approval.<sup>37</sup> Create points of connection between the mixed-use development and the surrounding areas. Consider the mixed-use development’s density related to that of the surrounding area.<sup>38</sup>

Finally, one key to success in an urban, horizontal mixed-use project is the proper incorporation of all components to create a seamless whole.<sup>39</sup> Another key to success provides that each use should have a “front door” that is distinct and separate from the other uses.<sup>40</sup> And, the mixed-use development needs to balance night and day activities so that everything on the site does not shut down at the end of the workday.<sup>41</sup> Build a day-night balance.

## Public Issues

The policy issues needed for the financial success of a mixed-use development include the following statements taken from various sources in the literature.

- Development plans for the mixed-use development should highlight transportation and infrastructure use (water, waste treatment, school capacity, etc).
- Development plans should highlight economic benefits of the mixed-use development (economic and fiscal impact studies).
- The zoning ordinance should allow multiple uses on a single integrated site. Most zoning ordinances are geared to a single use on a single site.
- The zoning ordinance should allow higher density development in the mixed-use development than in surrounding areas.<sup>42</sup>
- Availability of tax increment financing (TIF)
- Assistance with land assembly
- Property tax abatements<sup>43</sup>
- Transfer of development rights<sup>44</sup>

## **Challenges, Obstacles or Barriers to Mixed-use Development**

Various challenges, obstacles or barriers affecting mixed-use development are identified or listed in the literature. These items appear below without any ranking or relative importance associated to them. Very often these items simply appear in an article without any elucidation. Some of these items have been addressed in a previous section of this article. Mixed-use development must contend with:

- Extraordinary planning, management, political patience, capital resources and risk
- Assembling land parcels
- Inadequate capital planning
- Lacking knowledge of available public/private benefits
- Maneuvering through zoning regulations
- Addressing environmental issues
- Working with planning agencies
- Working with the community
- Working with multiple development teams

- Working with multiple owners
- Securing project finance/capital
- Addressing transportation issues
- Designing parking
- Designing a pedestrian-friendly environment
- Managing the financial challenges of a sequenced roll-out of project parts

The following items appear in a specific article.<sup>45</sup>

- External trip generation to all uses but mostly to retail and office
- Street capacity
- Water usage
- Air emissions
- Sewer capacity
- Endangered habitat limitations

The following items appear in a specific article.<sup>46</sup>

- Economic and market cycles
- Congestion and traffic issues
- Location
- Management
- Healthy balance of uses

### **Saving Yourself from Fads and Repetition<sup>47</sup>**

“One of the most insidious problems with all development is the tendency to blindly follow the latest trends and fads, without tailoring them to the unique situation. Just as problematic is proposing something without really understanding how it’s supposed to work, problems with past applications and how the market and economics work for the project. What worked before elsewhere may or may not work on your project. Many projects have been planned recently with a major Cineplex and entertainment element, and there is now a glut of such projects in different markets and an overextended cinema industry.”<sup>48</sup>



“Another case is blind repetition of ‘New Urbanism’ solutions.... Despite evidence that strictly interpreted ‘new urbanism’ isn’t successful in many situations, his planners proposed a design that discouraged foot traffic in retail areas, created isolated ‘big boxes’ and a ‘quasi-city block layout. This spread out the retail so it seriously diluted its critical mass and synergies.”<sup>49</sup> An apropos statement on this issue is “make it real, not Disney.”<sup>50</sup>

## **Conclusion**

The professional literature on mixed-use development contains many gems of wisdom about financial success that come from the background and experience of developers involved with the property type. Many of the points are repeated by different authors referring to different properties in different markets and at different times. Many good ideas and successful practices can be extracted from these articles. The authors are confident that this literature review contains valuable information for the reader even though the literature search may not be as complete as possible.

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<sup>1</sup> Niemira, Michael P., “The Concept and Drivers of Mixed-Use Development: Insights from a Cross-Organizational Membership Survey,” Research Review, Vol. 4 No. 1, 2007, 54

<sup>2</sup> A very imprecise definition of a multi-use project is presented by Niemira. “Multi-use is generally thought of as an additional real-estate property use which is small (in size or by revenue) relative to the entire project.” Niemira, 54.

<sup>3</sup> “Dominant use” was part of the discussion in an interview with Charles Konas.

<sup>4</sup> In a recent survey conducted for NAIOP by the authors, 92% of the respondents agreed with the statement “the financial success of a mixed-use development is best measured by using cash flow concepts such as discounted cash flow analysis and rates of return.”

<sup>5</sup> Aygoren, Sule, “Ins and Outs of Mixed-Use,” Real Estate Forum, March 2004, 66

<sup>6</sup> Mouchly, Ehud and Richard Piser, “Optimizing Land Use in Multiuse Projects,” Real Estate Review, Summer 1993, 80.

<sup>7</sup> In a recent survey conducted for NAIOP by the authors, 67% of the respondents agreed with the statement.

<sup>8</sup> Comment by Kenneth A Himmel in Aygoren, Sule, “Ins and Outs of Mixed-Use,” Real Estate Forum, March 2004, 66

<sup>9</sup> In a recent survey conducted for NAIOP by the authors, 92% of the respondents agreed with the statement.

<sup>10</sup> Comment made by Edward M. Kobel in Hazel, Debra, “Multi-Dimensional Retail,” Chain Store Age, August 2006, 134

<sup>11</sup> Trischler, Thomas J., “In the Mix: Determining What Uses Work Together Most Successfully,” Development, Fall 2001, 46

<sup>12</sup> In a recent survey conducted for NAIOP by the authors, 92% of the respondents agreed with the statement.

<sup>13</sup> Trischler, 42

<sup>14</sup> Trischler, 42

<sup>15</sup> In a recent survey conducted for NAIOP by the authors, 97% of the respondents agreed with the statement.

<sup>16</sup> In a recent survey conducted for NAIOP by the authors, 80.6% of the respondents agreed with the statement.

<sup>17</sup> In a recent survey conducted for NAIOP by the authors, 92% of the respondents agreed with the statement.

<sup>18</sup> In a recent survey conducted for NAIOP by the authors, 78% of the respondents agreed with the statement.

<sup>19</sup> In a recent survey conducted for NAIOP by the authors, 80% of the respondents agreed with the statement.

<sup>20</sup> In a recent survey conducted for NAIOP by the authors, 86% of the respondents agreed with the statement that investors understand the mixed-use development, and 76% agree that the investors perceive a higher risk.

<sup>21</sup> In a recent survey conducted for NAIOP by the authors, 97% of the respondents agreed with the statement.

<sup>22</sup> A comment made by Lang Cottrell in a personal interview sponsored by NAIOP.

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<sup>23</sup> In a recent survey conducted for NAIOP by the authors, 89% of the respondents agreed with the statement.

<sup>24</sup> A comment by John Gosling in Aygoren, Sule, “Ins and Outs of Mixed-Use,” Real Estate Forum, March 2004, 70

<sup>25</sup> A comment by John Gosling in Aygoren, Sule, “Ins and Outs of Mixed-Use,” Real Estate Forum, March 2004, 70

<sup>26</sup> A comment made by B. Schweikert in a personal interview sponsored by NAIOP.

<sup>27</sup> Comment by Stephen Reinke in Thame, David, “Finding the Right Formula,” Estates Gazette, May 2006, 93

<sup>28</sup> In a recent survey conducted for NAIOP by the authors, 94% of the respondents agreed with the statement.

<sup>29</sup> Schutz, Jim, AICP and Kelly Kline, “Getting to the Bottom of Mixed-use,” Planning, January 2004, 17

<sup>30</sup> A comment made by B. Schweikert in a personal interview sponsored by NAIOP.

<sup>31</sup> A comment made by Terrence Wall in a personal interview sponsored by NAIOP.

<sup>32</sup> Comment made by Brian Jones in Hazel, Debra, “Multi-Dimensional Retail,” Chain Store Age, August 2006, 35

<sup>33</sup> Zelinka, Al, Joseph Smart and Jennifer Kunz, “Making the Most of Mixed-use,” Planning, January 2006, 14

<sup>34</sup> In a recent survey conducted for NAIOP by the authors, 84% of the respondents agreed with the statement that noise abatement and fire retardation are important design features.

<sup>35</sup> In a recent survey conducted for NAIOP by the authors, 81% of the respondents agreed with the statement that transition areas and features work to generate premium rents.

<sup>36</sup> In a recent survey conducted for NAIOP by the authors, 73% of the respondents agreed with the statement.

<sup>37</sup> Koch, David, “Looking Up,” Retail Traffic, December 2004, 39

<sup>38</sup> Zelinka, Al, Joseph Smart and Jennifer Kunz.

<sup>39</sup> Comment by Tom Porter in Koch, David, “Looking Up,” Retail Traffic, December 2004, 39

<sup>40</sup> A comment made by Thomas Danilek in a personal interview sponsored by NAIOP.

<sup>41</sup> Kelly, Juliane, “Making Mixed-Use Work,” Commercial Investment Real Estate, January/February 2001, 35

<sup>42</sup> In a recent survey conducted for NAIOP by the authors, 97% of the respondents agreed with both of these statements about the zoning ordinance.

<sup>43</sup> In a recent survey conducted for NAIOP by the authors, the respondents agreed with these statements about TIF (84%), land assembly (76%) and property tax abatements (80%).

<sup>44</sup> Trischler, 44

<sup>45</sup> Mouchly, Ehud and Richard Piser, 80

<sup>46</sup> Hightower, David, “Healthy Mixed-Use Environments: The Macro, the Micro and the Nano,” Development, Summer 2002, 41-43

<sup>47</sup> Trischler, 46

<sup>48</sup> Trischler, 46

<sup>49</sup> Trischler, 46

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<sup>50</sup> Stribling, Dees, “Avoiding Anyplace USA: Mixed-Use Properties Increasingly Call for Retail Properties to Escape Cookie-Cutter Architecture,” National Real Estate Investor, May 2006, 44

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The following are highlights of completed research projects funded by the NAIOP Research Foundation. For a complete listing, please visit the Foundation's website at [www.naiop.org/foundation](http://www.naiop.org/foundation).

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