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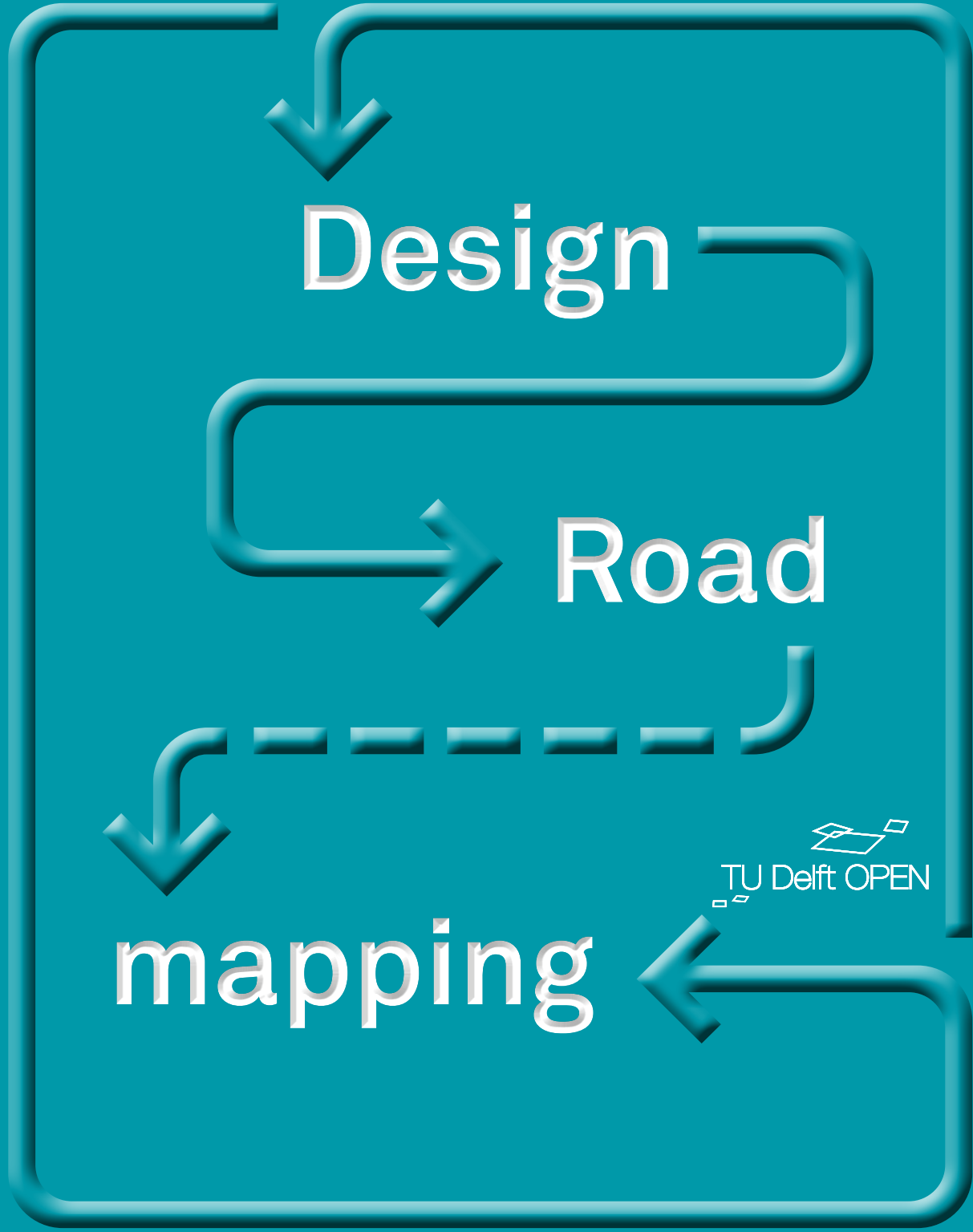
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Design Roadmapping:

Guidebook for future foresight techniques

Lianne Simonse



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DESIGN ROADMAPPING | Guidebook for future foresight techniques

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FUTURE VISIONING

HOW TO DESIGN A FUTURE VISION

The leading question for designers to start-up a roadmapping process is: what is our future vision, because that vision establishes the destination for the roadmap. Before designing anything, it is important to discern its properties. Therefore, in this chapter we first take a deep-dive into the properties and definition of a future vision. - what it is and what it is not. After that, we elaborate on special kinds of future visions – ones that lead to inspirational artifacts like concept cars and concept kitchens. These are in particular designed for the future exploration of and communication about disruptive value innovations. In roadmapping, we consider such vision concept as the ultimate future vision – Then, we discuss the role of designers in taking the ‘creative lead’ in formulating the future vision for the organisation’s innovation strategy. On top of that we present a special case story of future visioning in design practice. Flavio Manzoni, Senior Vice President of Design at Ferrari shares his notions on taking inspiration from the future rather than building from the constraints and legacy of the past.

Future Vision

↘ Creatively expressing a desired future

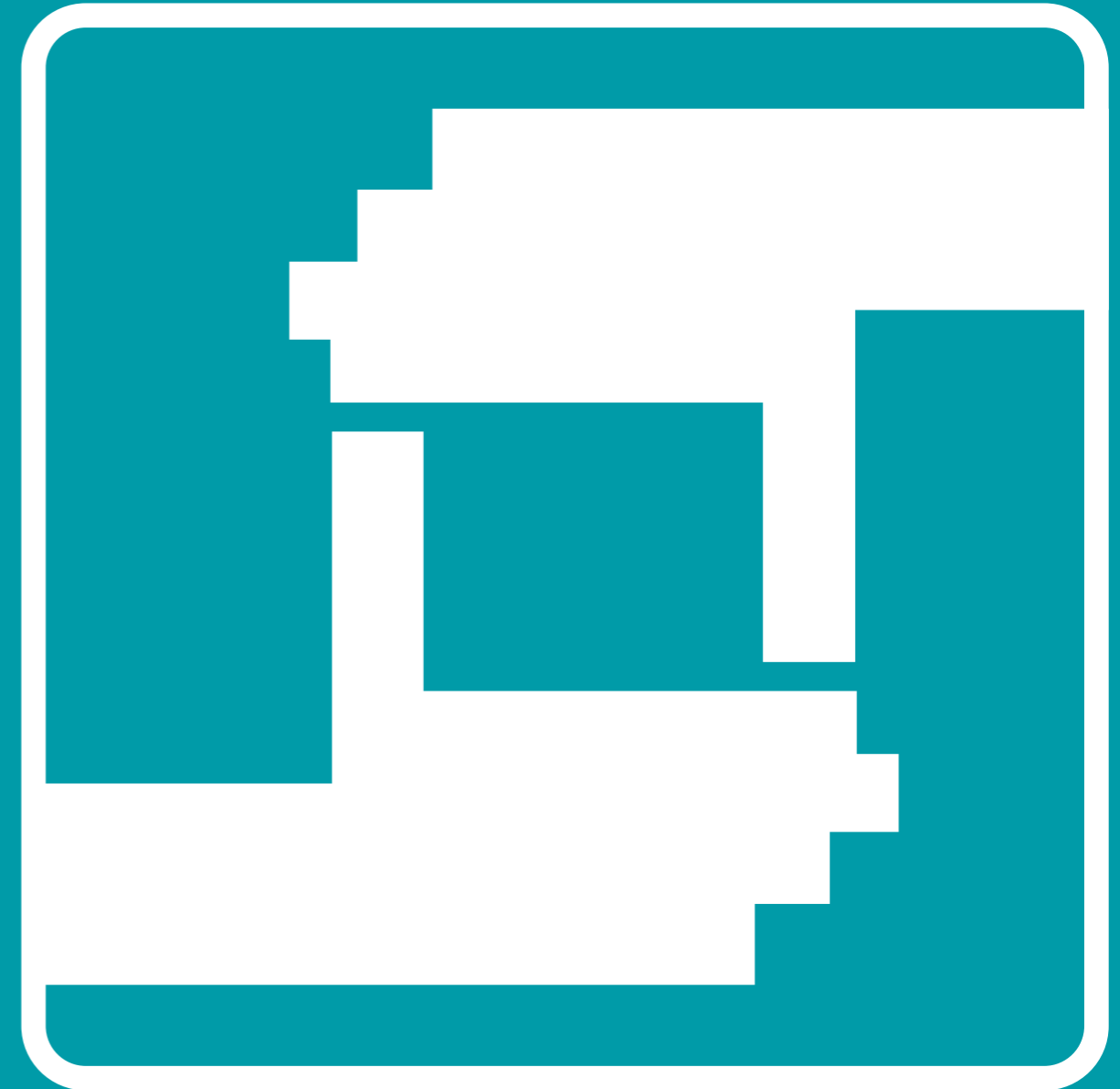
On a design roadmap, the future vision points to the destination. As an expression of a desired future^{1,2,3,4}, the vision provides a strategic reference point – a focused direction that leads to stronger motivation⁵. Visions imagine experiences of future innovations.

A vision’s creative expression may be plain or elaborate, down-to-earth and practical or dreamily utopian, and can come in the form of graphic, video, artifact or written narratives⁶. Creative expression makes the vision more explicit; in order to inform actions in concordance with it until the vision is either achieved or replaced. Unlike a goal, a vision aims to establish a tension between “what is” and “what could be”⁷, so as to provide direction for the innovations on the roadmap that lead to it.

↘ Imagining a desired state of the future: capture value wishes

A future vision imagines possible future experiences concretely. It listens to people’s wishes for future innovations and articulates them explicitly⁸. A future vision holds imaginative, and dreams about the future. It can only take root through true leaps of inspiration, which are sometimes based on observed trends and identified opportunities, and sometimes on personal inspiration or intuition. As Carl Jung, once said, "Your vision will become clear only when you can look into your own heart . . .who looks outside, dreams; who looks inside, awakes⁴." Visioning is often seen as the realm of the artist, the poet, the tinkerer, the futurist and the designer⁴.

Capturing wishes about the future as people would like it to be is the art of visioning. People’s passions, desires and aspirations can be



A FUTURE VISION is an expression of a desired future.

framed as future visions. For instance, a film fan who's "wish is to watch a movie that feels like being there" inspired the vision driving a multimedia venture roadmap: make immersive movie experiences happen. The value propositions for such experiences do not exist yet. The vision captures a value wish⁸. Value wishes express a desired end-state in which a novel value fulfils an unmet need or resolves a present dilemma or feeling of frustration experienced by a user target group. Besides wishes for new products, people's value wishes might be to alleviate the effort that goes into annoying or "dirty" jobs, or perhaps reduce risk and feel safer⁸.

↘ The strategic reference point for actionable innovations

Visions also contain a specific call to action. "Dreamers dream about things being different. Visionaries envision themselves making the difference⁹." The vision not only imagines what needs to be different in the future – it expresses specific, achievable dimensions to making the difference. As Alan Turing said, "We can only see a short distance ahead, but we can see plenty there that needs to be done¹⁰." Many roadmappers consider it imperative to develop a vision that includes a specific desire for action as the vision channels the energy of the different innovation professionals into useful actions and activities of research, design and innovation^{11,8}.

Visioning entails taking a leap toward the future¹². To get there, some innovation professionals may want to take high risks, while others might prefer a more risk-averse direction. In the theory on creating a strategic reference point, scholars have framed that these two types of risk behaviors meet somewhere in the middle. Perceived gains and losses from both perspectives at the end of the risk spectrum that are voiced, discussed and reviewed in strategic dialogues often lead to finding an optimal vision that lies in between – the so-called 'strategic point of reference'⁵. Therefore it is important to organise a team of innovation professionals to create a vision together. Through the sharing of personal views on the future and evaluating the imagined opportunities from multiple perspectives, the future will no longer stay in the domain of individual knowledge – it becomes one of collective action⁸.

Overall, in roadmapping, the more clear the strategic reference point of the vision is, the more easily everyone can see how to build a path towards it.

↘ Four distinguished properties

Beyond bringing the imagination and realisation contributions of the innovation professionals together into one strategic point of reference – the design of the vision expression provides the creative challenge. According to research, strong visions have four distinguished properties of clarity, value drivers, artifact and magnetism.

- CLARITY in the vision expression enables immediate understanding of what it would be like to experience the future innovation in the explicitly expressed desired end state^{13,16,25}.
- VALUE drivers capture the key compelling benefits of value wishes: wherein the specific value fulfils an unmet need or solves a dilemma of a user target group in the future^{8,14}.
- ARTIFACT, materialise the imagined value wishes with images in 2D or 3D- dimensions¹⁵.
- MAGNETISM involves the desirability and attractiveness of the vision – 'the thing' the vision creators are truly passionate about in such a way that it potentially energizes others to direct their actions towards it¹⁶.

↘ A future vision is not a design vision

Design, as a discipline, has always been closely linked to the exploration of the future¹⁷. Depending on the design task, to varying extents designers act as "futurists or futurologists, in the field"⁶. In certain product design approaches, such as 'Vision in Product', designers are encouraged to formulate a personal vision on the direction of the solution design¹⁸. This design vision is however, mostly formulated by the designer in an independent way, grounded in his or her design authority and craftsmanship in creating solutions.

In contrast, a roadmap vision is in principle a shared vision, co-created by a number of innovators including marketers, engineers and users involved^{11,8}. Moreover, a roadmap's vision is created from the future intent⁸. This vision explores the future, whereas a design vision is created after design research on certain problems in the present¹⁵.

↘ A future vision is not a corporate vision

Because a roadmap's vision is focused on future innovations, its target and scope differ from the mission and vision statements found in many corporate strategies. These organisation visions have a larger, companywide scope, covering the raison d'être, overall positioning and goal setting of the company¹⁹. Corporate visions – examples are readily available on the Internet - see for instance the one of Apple– include strategic statements related to the strengths of the company, and its corporate values and beliefs²⁰.

A roadmap's vision is different due to its particular focus on innovation and future value experiences¹². That being said, corporate visions and the future visions of roadmaps can be related – both top down and bottom up, a future vision can be embedded in the corporate vision.



Vision Concept

RICARDO MEJIA SARMIENTO & LIANNE SIMONSE

▾ Demonstrate the vision with an artifact

To demonstrate a future vision, some companies create vision prototypes, such as concept cars and concept kitchens. These vision concepts are created to explore and discuss new strategic ideas for innovation. According to designers at Citroën, concept cars are like “laboratories for new ideas¹⁵”, while designers at Volvo say that “concept cars function as a test bed for new ideas¹⁵”. The concept prototypes bring a future vision to life and make it possible to experience a future vision in the present²¹. In roadmapping, vision concepts do more than showcasing the visions of the strategic directions— they communicate the new values, test them by user interactions with the vision concept and support the strategic decision-making on the allocation of resources for future design innovations⁸.

Although the embodiment of a vision concept can be quite similar to a 1:1 prototype, the inherent visionary narrative that it demonstrates is different from underlying build to test narratives of ordinary prototypes. Parts of vision concepts might find their way into new products, but a vision concept is not intended to provide a model for a production prototype – “nor will it be sold¹⁵” stated Philips designers explicitly in their write-up describing their concept kitchen. Vision concepts are therefore different from product development concepts, which unlock a problem and define the design challenge in a new product development project. Vision concepts are also different from emerging concepts that draw on proof-of-principles of technologies in demonstration prototypes often found in pre-development projects. One step beyond these commonly-known prototypes, vision concepts have a strategic purpose and are specifically created to support a company’s strategic decision-making on future innovation directions¹⁵. In-company, the vision concept influences and supports decision making on investments of additional resources into further research and design²¹.

▾ Explore the future with plausible stories

A vision concept is a real, working artifact that demonstrates the plausibility of a future vision²². The intention of a vision concept is to explore the future potential and provide answers to research questions about future use, future systems integration and the social experiences



A VISION CONCEPT is a publicly shared concept prototype to explore the future with plausible stories.



implied by the object¹⁵. A fully-functional concept car, for instance the F015 (Figure 3.1) serves the purpose of exploring the future with a broad audience of future users, media opinion leaders, competitors and in-company designers and engineers. Furthermore, after positive press feedback, it is easier to decide on further investment in immersive experience research¹⁵.

↳ Vision sharing

A tangible vision concept encourages the creation and sharing of a clear vision²². As designers at Mercedes-Benz see it, concept cars are a way to have a “dialogue with customers¹⁵.” Vision concepts are typically created for sharing future possibilities in a public context whereas other prototypes are built in secret and protected by non-disclosure agreements. Vision concepts are made public to showcase the organisation’s strategic direction in innovation, to communicate

←
Figure 3.1
Vision Concept of Mercedes-Benz F015 Luxury in Motion during its stay in the main square of Linz.

cc Florian Voggeneder photography.

the new values and test them by user interactions with the vision concept. The vision concept artifacts foster interaction to share and discuss the likelihood of use stories.

A concept car tells the story of a carmaker’s future vision and innovation strategy. To illustrate the story, the vision concept is often featured in a short video created to capture the experience of interacting with it. For example, the Mercedes-Benz F015 research car (see figure 3.1) comes with the brand message “Luxury in Motion: an innovative perspective into the future of mobility¹⁵.” The video Mercedes-Benz produced, features a handsome businessman and a sleekly futuristic self-driving car, to showcase the F015’s immersive luxury user experience. The autonomous vehicle waits in standby mode until the businessman summons it, after which it chauffeurs him along the highway while he sits back and relaxes in a lounge chair turned away from the tiny steering wheel. From the interior – the “digital living space” – he interacts seamlessly with the outside world by novel web-services, using touchscreens installed all over the concept car’s side panels¹⁵.

Mercedes-Benz used this connected concept car and its video presentation to publicly announce its innovation strategy for autonomous-driving cars. The F015 compellingly demonstrates the company’s vision of autonomous mobility innovation and luxury digital connectivity. It also indicates the strategic direction of their investment decisions. To further immerse the public in its vision, and test the market potential of the new user values, the fully-operational F015 Luxury in Motion was shown at CES exhibition in Las Vegas. Visitors were invited to test ‘ride’ the connected car. Eventually, Mercedes-Benz uses concept cars to interact with its customers more directly and influence and “set industry trends, preparing the way for market adoption of novel vehicle concepts¹⁵.”

In other words, concept cars drive innovation in the automotive industry by providing inspiration to the market and exploring the customer interest for the new values. In a way, vision concepts can be used to assess whether the value drivers of the future vision have an extraordinary quality of becoming a self-fulfilling prophecy by building positive hype and visualising future use¹⁵.

↳ Virtual artifacts

Besides clay models and 1:1 prototypes, new technologies like augmented reality and 3D modeling also allow designers and innovators to explore the future of strategic innovation¹⁵. Virtual techniques are becoming increasingly useful ways to engage user interaction and explore the potential of new values and technologies to foster the development of novel platforms, products and services.

Creative Lead

↳ Taking the lead in visioning

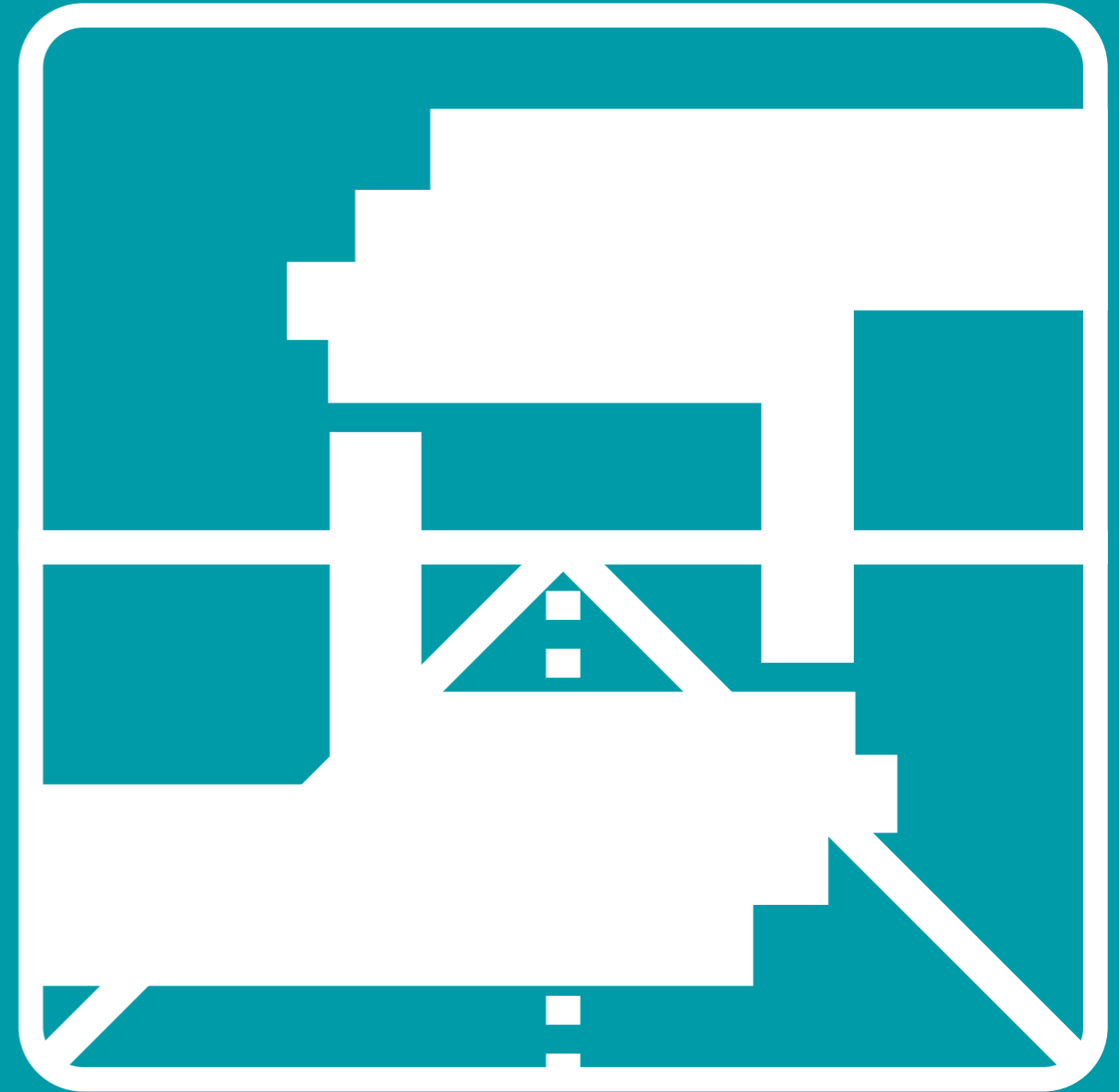
Future visioning often implies leadership, especially when it comes to shifting the vision from the stages of imagination and creation, to the realisation. Studies have found that in environments characterised by uncertainty, successful leaders are those who sustain an ongoing vision²³. And not just that – an effective leader must also strive to strengthen the bond and attunement among group members²⁴. If only one person takes sole responsibility for future visioning directing the course of change, it is not just creativity that may get lost – the team’s commitment to the vision may dwindle if participants do not take personal pride in pursuing the vision²⁴.

Research on leadership practice has shown that the abilities to champion and secure a vision are harder to master than those of to initiate and direct a vision²³. For a vision to become a reality, there is a need for leaders who master these extraordinary abilities – leaders who are capable of communicating the vision and making sure others “buy into” it, and who can transform a vision into the sustained effort and ongoing cohesion required to make it a reality²⁴.

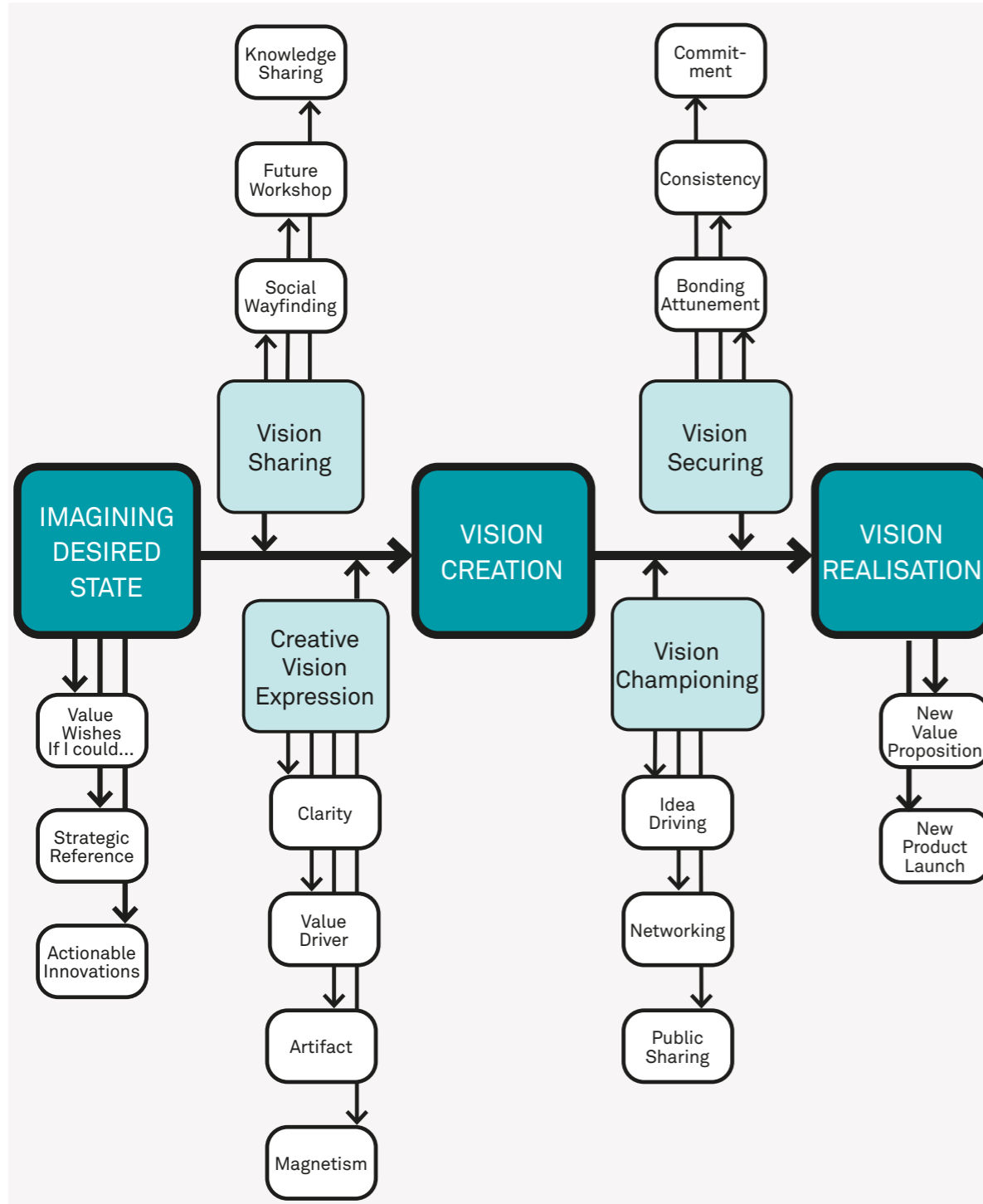
Every single person on the design roadmapping team can potentially exert an influence on the future direction of an innovation strategy. At certain times, creative individuals, who are skilled at imagining and visualising desired states, can take on a prominent role. At other times, those who are more in tune with users and their unmet desires can be the ones to take the lead. And then, individuals who are strong programmers and can make sense out of ideation sessions can be the ones to inspire others to transform their ideas into realities. In future visioning the designer can take the lead and catalyse the turn toward the future direction by, for instance, sketching scenarios of future use, identifying value drivers and visualising the vision concept.

↳ Turning the vision into reality

Research comparing the success or failure of new products on having a vision in advance has shown that radical innovations with a clear vision and a degree of flexibility built into project plans were the most successful²⁵. A clear vision gives innovators a well-articulated, easy to understand target – a very specific goal that provides direction to everyone in the organisation. For example, the vision in the US space program, was to “put a man on the moon and return him safely to earth by the end of the decade.” This vision easily helps others to create a clear image of what the innovation is



Taking the CREATIVE LEAD in future visioning involves imagining, sharing, championing and securing.



←
Figure 3.2
Future Visioning
an Integrative framework
cc Simonse & Hultink, 2017⁹.

trying to achieve²⁵. Establishing such clarity is essential in creating a successful vision. Without it, others might not support the vision – because they don’t know what they are supporting – nor is the vision likely to be stable and enduring²⁴. Figure 3.2 presents a framework of future visioning⁸. It gives a recap on the activities that creating a future vision requires. In the previous section we have discussed that creatively expressing a desired future, imagining a desired state of the future, sharing a vision and turning the vision into reality are key activities in future visioning.

In roadmapping, the challenge is to formulate a future vision, one that clearly points to new values. Often on roadmapping teams, the creative lead is challenged by overcoming the tensions between market pull (marketing professionals emphasising new market creation and new value drivers) and technology push (inventors and engineers pursuing the long-term advancement of technology). 'Building bridges' in the team communication and beyond requires creative ways of facilitating interaction with the roadmap.

↘ **Championing the vision**

Creative people, who take charge of communicating the vision, are those individuals who embody the key values and ideas contained in the vision and ‘walk the talk’. They use stories, metaphors and analogies to paint a vivid picture of what the vision will accomplish – these so-called “champions” achieve high impact on innovation performance¹⁶. Ikea’s video on the “Concept Kitchen 2025” has such a creative lead, who expressed the purpose of the concept kitchen: “to inspire ourselves and inspire people around us by communicating the behaviours of the future, and what the kitchen will look like in 2025¹⁵.” Vision champions are particularly adept at propelling vision realisation: (S)he has mastered the skills of idea-driving communications and networking. For both skills the context of communication and networking can vary from communication in the roadmapping team to the communication on an expo. In roadmapping practice, the vision champions in roadmapping encounters at least three contexts of sharing the future vision:

- **TEAM SHARING** where the champion delineates the future vision alongside innovation team players, and motivates researchers and designers to find answers to exploratory research questions;
- **IN-COMPANY SHARING** where the champion inspires the creation and exchange of ideas with and among internal innovation professionals and external strategic partners; and lead customers.
- **PUBLIC SHARING** where the champion shares a strategic intent of the future vision with an audience of consumers,

opinion leaders and potential partners (and competitors by for instance showcasing the vision concept (a concept car, concept kitchen etc.) or another type of artifact¹⁵.

According to Harvard and MIT Professor Deborah Ancona, good leaders are those who are able to frame visions along certain key value dimensions. She encourages leaders “to practice creating and communicating a vision in many arenas, and enable co-workers by pointing out that they have the skills and capabilities needed to realise the vision²⁶”. In this way you can effectively nurture vision creation into realisation.

↘ Securing commitment

Attaining support for the future vision means securing the commitment of people throughout the organisation for what the overall vision is trying to achieve. When everyone is more than willing to pitch in and help realise a vision and will do whatever it takes to achieve that goal, the vision is securely supported.

Securing the vision includes the communication aimed at reducing individuals’ natural resistance when they perceive that change is being imposed upon them²⁴. Two important encouragements in these situations are: to ‘suspend instant disbelief’ and to concentrate on the long term aspect of the future vision for which the roadmap supports achieving stability, by providing consistency of the vision over time⁹. To secure commitment – the roadmapping team must operate as a well-oiled machine. This is possible when team members transcend traditional function requirements, and cultivate a greater sense of community, trust, respect and shared values in the interest of getting the job done.

Overall, the integrative framework in figure 3.2 outlines the leadership qualities that future visioning requires. In addition to imagining and creatively expressing a desired future, the key skills to master for turning the vision into reality are those of championing the vision and securing commitment⁹.



↑
Wander the myriad pathways!
Skydive, metaphor for vision
securing.

cc Treklocations.

Spaceship Vision

FLAVIO MANZONI & ENRICO LEONARDO FAGONE

Flavio Manzoni is passionate: not just about his work, but also about futuristic, science-fiction inspired design. One of his signature projects was a study for a Ferrari-inspired spaceship, a creative exercise for his team in looking to the future for inspiration. While maintaining respect for Ferrari's heritage, he takes inspiration from the future, instead of building on the 'retro' style legacy or existing constraints²⁷.

In 2015, Manzoni unveiled his concept for a super-futuristic spaceship. He designed the Ferrari spaceship as a carrier of his vision to design cars and products that reflect progress and evolution.

“I tried to imagine something that can fly into the future, since there will be less and less space available on the ground, and I focused on creating a little craft that's different from my childhood dream³².”

In his opinion, the artefacts created for it, such as the drawing and the 3D rendered video in figure 3.3 and 3.4, encourage our trust regarding the future, like when we were young, and had a strong sense of trust in the future. He vividly remembers the feeling like the future was something to look forward to. As a young boy, he imagined that cars would be totally different from what they are now, “I expected to see flying cars by 2000³⁰.”

The Ferrari spaceship offers an alternative to the tradition of defining a new car design through standard modules such as the grill at the front and the bumper at the back, and studying the fronts and backs of previous models to derive inspiration. He wanted to create something new instead- something inspired by the future²⁷. For him it's simply not enough to create a new version of the front and the back of a car. His ambition is to achieve a true union of technology and aesthetics that has been guided by the future. He does not like to start designing from existing constraints, which are always a huge obstacle. In his view it depends on how you face them, he does not think of them as a problem, because then the end result will be compromised. He considers it

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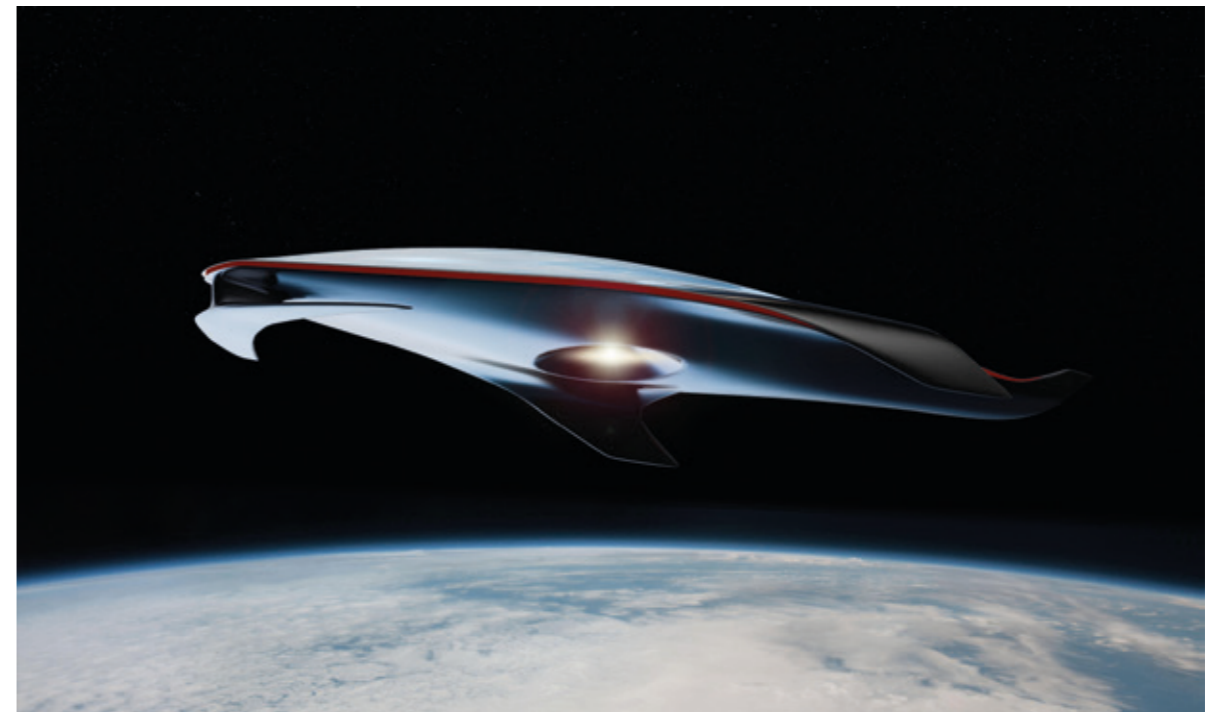
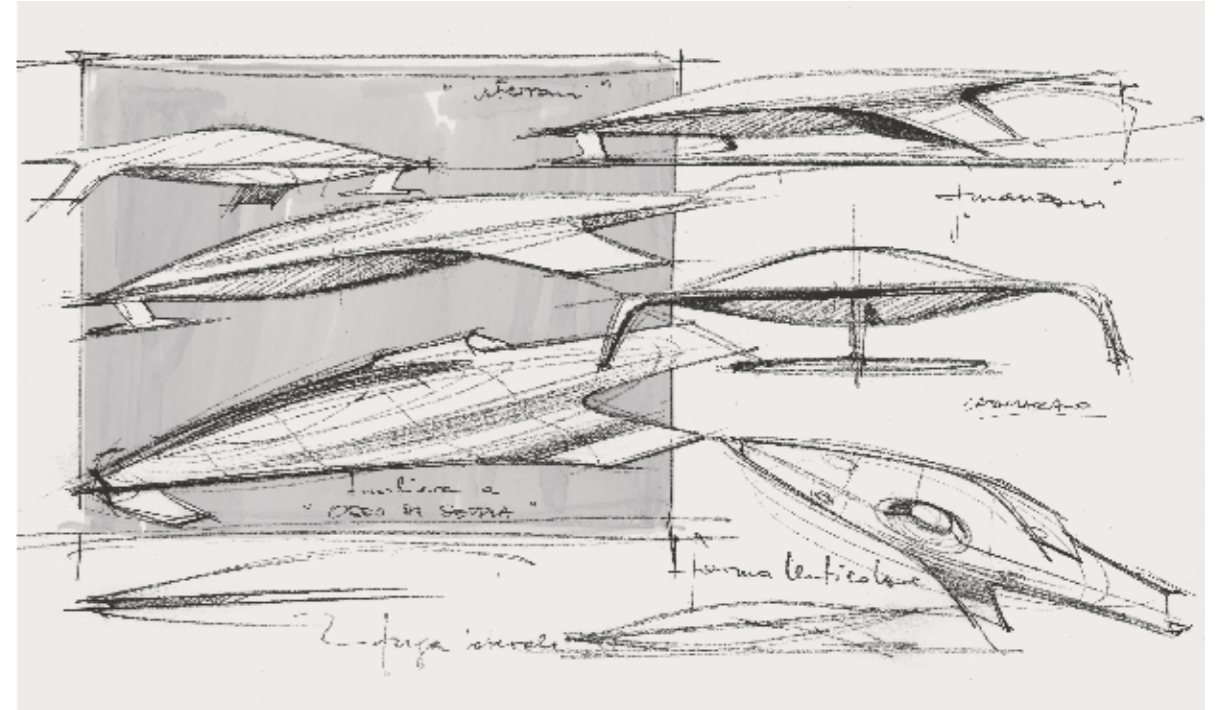
Figure 3.3
Sketch Spaceship vision

© Flavio Manzoni,
FERRARI DESIGN, SVP.

→

Figure 3.4
3D artifact of Spaceship vision

© Concept Flavio Manzoni,
3D model Guillaume Vasseur
Rendering and post production
Billy Galliano,
FERRARI DESIGN TEAM.



something that forces us to do something different, then that opens up a massive opportunity to say something new, to transform and evolve the design of the car.

↳ Creative lead

According to Flavio, the 'retro' design trend has become over-popular, especially in the last 20 years. Every car company is making retro-styled products, whose inspiration comes from the past instead of the future. For him, this practice does not fit with his personal drive to design the future. As Senior Vice President of Ferrari Design, and alongside the Ferrari Styling Center, he seized the opportunity, to try and set a new standard -to raise the bar -, creating an iconic, modern language.

He came into Ferrari, a brand known for its history, its heritage – Enzo's heritage – and its timeless design and gave a radical new twist to the meaning and creation of 'timeless' cars. "Sometimes it's not so easy to explain why we feel that a particular design solution is the correct one. Normally I follow this principle: if the form follows the function, and our work is innovative, then we are safe. The problem is when you try to make something stylish, when you have a preconceived idea of the form, then it becomes an ornamental treatment³⁰." In his view this is never timeless. When, instead, there is a clear connection, a clear match between the form and the substance, then it is different and the result can be timeless. He wants the team to imagine when they work on a new Ferrari,

“Please, guys, think about how this car will be perceived in the next fifty years³⁰.”

↳ Vision concept artifact

Giving form to a future visioning project is quite a difficult task, because although the ufo-idea that he had in mind when they started the project was quite clear, it wasn't clear how they could squeeze in all the requirements, all that technical complexity. They found inspiration in this quote from the architect Oscar Niemeyer: "It must be extraordinary not only in terms of performance, but also extraordinary in terms of beauty. I recall you saying that the voids are as important as the solids³¹."

For this project they found a new way of designing by modeling the airflow, because once we knew what the behaviour of the air would be, then we could imagine the form. Maybe in a fifty years we'll finally have our personalized spaceships. By developing the FXX K and

↓
Figure 3.5
Ferrari 812 Superfast,
model presented to the public
of the International Car Show
in Geneva in March 2017.

© FERRARI MEDIA

DESIGN by Flavio Manzoni and team. The design of the object conciliates efficiently the extreme car performance ever achieved with the harmony and proportions of a 'Granturismo'.

other concepts. Flavio aims to build a portfolio of cars that look like spaceships, inside and out.

“We start very visionary, and then we have to domesticate that vision. But only a little, enough to ensure a Ferrari is recognisable without the emblem²⁹.”



The propulsion method remains undetermined, and yet this concept car is only years away from becoming a reality.

↳ The use of artifacts in visioning: intuition and ‘heuristic’ approach

The final shape of a car is the consequence of a complex design process based on integration. Flavio Manzoni has always been a proponent of a rigorous approach in which the designer has to combine the essential technical and performance requirements. The latest Ferrari models can be considered the result of the synergy with the technicians and specialists of aerodynamics as well as the consequence of a proper conceptual approach and working methodology. “We can identify a match -Flavio Manzoni says- which expands the scope of action and reflection of the designer in the broader context of visual culture, art and science, architecture and music”.

In LaFerrari, for example, surfaces define a continuous harmony that recalls the research into abstract forms and the ‘3D surfaces’ by the artist Anish Kapoor and the studies on the ‘fourth dimension’ of the mathematician Bernhard Riemann. Similarly, the project J50 can be understood and read as fruit of a creative process close to the Jazz music compositional criteria and based on dialectic. Even in the case of the 812 Superfast, the new Ferrari model that has been presented to the public of the International Car Show in Geneva in March 2017, the design of the object conciliates efficiently the extreme car performance ever achieved with the harmony and proportions of a ‘Granturismo’ (see figure 3.5). “In a way I follow a ‘heuristic’ approach to the solution of the problems that don’t follow a logical path. I rely a lot on intuition and for the transitional state of the circumstances, in order to generate new solutions²⁸.”

For Flavio Manzoni and his team, the creation of a new product is to be considered always a special moment, the search for a form that has to materialize its very essence:

“It’s a challenge with oneself, with the mind turned towards future scenarios. A collective-individual process, of initial expansion and final convergence. The process that leads from a blank sheet of paper to the finished car, is a magical occurrence that is renewed every time a new car is born, from the

first pencil strokes, with an ideal in mind and the ‘creative fire’ that pushes the hand to lend it a shape. When those traits come to life, my dream is that this ideal can permeate the project, crossing the entire process of development and arriving intact to characterize ‘that’ product, speaking a language, or a ‘meta-language’, able to communicate without words”.

Flavio Manzoni’s desire is such that this creation is self-explanatory: it expresses its philosophy, its values and its inherent innovative content through its own formal language. But above all that it communicates directly the emotion that has generated it.

“I learned to work in an interdisciplinary way, seizing the opportunities of those ‘short circuits’ that come from putting in connection fields, which differ from each other, from architecture to sculpture, from industrial design to music.

It’s the so-called ‘serendipity’: creativity means for me the ability to see beyond relationships where they still don’t exist, the rapid act of connecting elements that do not belong to the obvious²⁹.”

FLAVIO MANZONI is Senior Vice President, Head of Design at Ferrari. He graduated in architecture with a specialisation in industrial design, and began his career in 1993, working for Fiat, Lancia, Volkswagen, and Seat, before joining Ferrari in 2010. Under his creative leadership, Ferrari was awarded with the prestigious “Compasso d’Oro” for the F12berlinetta in 2014 and the FXX K in 2016, which also received the “Red Dot: Best of the Best” in 2015. One of his masterpieces is considered the LaFerrari, the first Ferrari hybrid as well as its most powerful production car to date.

LAB ↗

Expression on a desirable future

MATERIALS NEEDED:

- sticky notes
- big sheets of paper
- white board or wall

1 Form a subgroup of 3-5 design and innovation professionals from the roadmapping team.

2 Start the conversation about a future vision by telling each other which value desires and wishes you're interested in, and which you consider to directly affect your organisation. One by one you'll go around the room, and capture your perceptions, ideas, sketches and stories on sticky notes. It's critical to pay close attention to your team mate's stories, learnings, and hunches.

3 Be open to each other's reactions and interpretations. Encourage the association of ideas on how users and organisations are, or could be responding to these value desires and wishes. Generate a bunch of ideas on strategic value opportunities in the future. These may include but are not limited to new user experiences, new technology interactions or new service desires. If there is an idea that does not resonate, drop it and move on to the next.

4 Put those value opportunities that resonate in the roadmapping team on the big sheets of paper so that you can start formulating the vision statements by its strategic value drivers. Gather your group around the sheet with sticky notes. Move the most compelling, common, and inspiring values together and sort them into categories.

5 Look for patterns and relationships between your categories and move the sticky notes around as you continue grouping. The goal is to identify key strategic themes - value drivers - and then to translate them into the vision statements. Arrange and rearrange the sticky notes, discuss, debate, and talk through what's emerging. Don't stop until everyone is satisfied that the clusters represent rich value drivers.

6 Take the value drivers that you identified and put them up on a wall or board. Now, take three (max. five) of the value drivers and rephrase it as a short statement and sketch an image that illustrates it.
- People don't need to be a great artists to create great images on the future.

This lab provides guidelines on the team activity of future imaging and how to converge that into the formulation of a future vision expression. It proposes to organise a creative conversation with the result objective of an agreed upon future vision expression. In a shifting and uncertain world, a well-defined desirable future is often expressed in three to five strategic value drivers.

At the same time, you are working on making your organisation as actively adaptive as possible, in relation to achieving those values and in relation to changes that will occur in the external environment. An agile organisation has the ability to align their actions to value drivers, as well as modify, drop or add a particular value driver as the environment changes by recurring creative conversations on the desired future.



Prof. dr. GLORIA BARCZAK on the subject of Visionary Leadership and Roadmapping

LS In roadmapping, the creation of a future vision is providing the destination of the roadmap. You identified that shared visioning is important in organisational change. To what extent do you consider this also relevant to innovation strategy?

GB Well, so I think two things, when organisations want to move, from doing only incremental types of innovations to doing some breakthrough innovation, then clearly they need a change in culture. But before they can do that they need to establish a vision of what they want to achieve and why this vision is needed; and then create the roadmap of how to get there. Think about P&G with their open innovation initiatives; at the start of the 2000's A. G. Lafley was CEO and says we need to do open innovation, and we need 50% of our innovations to come from outside the organisation. You are

not going to get breakthrough innovation, if you are not setting an actionable vision. You are also not going to have an organisation that delivers continuous innovation unless a leader sets some kind of a vision and discusses its implications. The leader needs to tell people: 'this is what we want to do, explaining what we are going to do, why we are doing it, and why it is important for the organisation'. Without communication and explanation about the vision and its implications, people won't get it.

LS Are there parallels between a corporate vision and a future vision for a long term innovation strategy?

GB I think there are parallels. Organisations, if they are really thinking about how are we going to survive for the next 5-7 years, then you have to have an understanding of what is going on in the environment. In my experience, often there is a lot going on, and nobody knows exactly how things are building up. I think it makes sense that if you want to continue to survive as an organisation, you have to think about the future. Although nobody knows for sure, but you can see signs of changes and trends, read those signs, and collectively you have to think about what are the implications. That is why people use scenarios, even though that scenario may not materialize exactly. It is important to think about the implications, "what is changing, how will it impact our stakeholders and our company, and what do we have to start doing now to address these changes and trends?" So that is where roadmapping comes in. If we are thinking that some change is really going to take effect several years from now, we have to consider what do we have to do now and how do we map that out, to get to that point.

LS Your research on visionary leadership showed the importance of bonding and attunement in securing a vision. Do you consider that visionary leadership stems from a personal ability, a charisma, of leaders or a way of acting?

GB I do not think that everybody has visionary skills; some of it is innate. When you compare leaders, people like Elon Musk and Steve Jobs, they are really visionary leaders. Jobs was able to see things that people could not see. But there are not a lot of people like that. Most leaders set goals 3-5 years ahead but that is different than being a visionary leader. Those who are visionary, look ahead all the time. They are very future oriented, and that is part of who they are. Therefore, I don't think you can teach people to be visionary. You have it or you don't. Steve Jobs had it, Elon

Musk has it, it is innate; it is a personality characteristic. This implies that if you want visionary leadership, you have to find people who have that ability. I'm not sure how you assess visionary leadership or measure it. My sense is that, when you compare visionary leaders to non-visionary leaders, the visionary ones, can see way far in the future. Not 5 years ahead but 20 or more; with a much longer term perspective. When I think about myself, when I took over the journal, I could see things that needed to be done for the next three years, but I don't know what is going to happen 15 years from now on. There is a difference between having goals and strategies and then having a vision.

LS So for designers, who are thinking of taking the creative lead in roadmapping – and do not have to look that far into the future - What would you advise?

GB You can share a vision, by sharing your thoughts and reasons why, and hoping that people buy into that. To create commitment you have got to involve other leaders. Particularly, in larger organisations, you need leaders who can implement and champion the vision; leaders who can communicate the vision and persuade and motivate their people. Sharing the vision involves shared leadership for the vision. You have the visionary leader, yet you also need to have people with situational leadership, those leaders that represent the different levels of the organisation

LS And what about creative leadership. Recently there is a lot of discussion about creative leadership and transformative leaders?

GB Well leaders sometimes have to be creative in getting things done. But a creative leadership kind of implies that some leaders are creative, and others are not. This goes back to the myth that only certain people are creative and others are not. I am convinced that all people are creative, although in different ways, and some are able to tap into their creativity more than others. The job of a leader is to leave room for creativity. The autocratic person who might be very visionary, often does not leave room for creativity. It is his vision, you are not allowed to be creative in terms of where we could go or how to get there. This type of leader is not interested in getting commitment to their vision; they are only interested in having it implemented.

LS My last question: what do you recommend design roadmappers in terms of leadership?

GB As we have been talking about, the first thing would be to create a shared vision, and really organise this collectively. You have to involve people from all levels within the organisation. Obviously the people at the top can see things and know things, but certainly at all different levels people see things, often things that the top has no clue about. Sometimes for the people at the bottom it is difficult to see the future, because they have to deal with the day-to-day management. However, you can't have commitment to a vision from solely the senior management. A real trap is that their 20 years' views can get so disconnected from the people at the bottom.

Second, really think about what that future might look like in the next 5 years (instead of the full 20 years). Think in increments; here is where we are, here is what the future is likely to look like in 5 years. Then, consider what innovations and changes are needed to get to that future. Which innovations can you map towards that vision. What innovations do you have to create or buy, in order to come to that future vision.

Third, we have talked about that notion of commitment and buy in, that really has to be there in order to succeed.



↑
Self portrait of Tracy Caldwell Dyson in the Cupola module of the International Space Station observing the Earth below during Expedition 24.

cc Tracy Caldwell-Dyson, NASA.

IN SUM

Future visioning is about imagining desired values that are actionable and within reach of the participating innovation professionals. In this chapter, we have provided answers to the question of how to design a future vision. It all starts with determining the properties of the future vision.

The three core elements of a roadmap's future vision are:

- CLARITY in the explicitly expressed desired end state;
- VALUE DRIVERS that capture the key compelling benefits of value wishes;
- ARTIFACT that materialise the imagined value wishes;
- MAGNETISM that energises others to aspire to its creation.

Next comes creatively expressing the vision in an artifact. We presented ultimate artifacts that we term 'vision concepts', which are nearly fully-functional, futuristic prototypes (such as the connected concept car and the concept kitchen). Then we outlined the abilities that define the role of creative lead for future visioning and highlighted some leadership qualities the job requires. Important skills for the creative lead to master are: IMAGINING, through dreaming and creative expression; SHARING, by establishing bonds and maintaining attunement; CHAMPIONING, by driving ideation, implementation and networking; and SECURING commitment until the vision has become a reality. Flavio Manzini's story inspires us to look ahead to the future, take a leap into actionable dreams and forget about the past and its retro legacy.

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